Hearing Other Voices: 
A Critical Assessment of Popular Views on Literacy and Work

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Current popular discussion about the role of literacy in the workplace is often based on the largely unquestioned beliefs that workers are deficient in basic literacy skills and, further, that there are clear links among illiteracy, poor job performance, and the declining economy. These assumptions lead to demands for school-based, skill-driven literacy programs tied to the workplace. In this article, Glynda Hull challenges these demands and the characterizations of workers that underlie them, suggesting that these demands are based on overly simplistic notions about literacy and its relationship to job performance and the economy. Hull argues that ethnographic research on literacy and the workplace demonstrates that the relationship between work and literacy is far more complex than the current popular discussion would have us believe. She concludes that we must pay more attention to how literacy skills are actually used in the workplace and that we can best do this by asking workers about their experiences in workplace-related instructional programs.

Interviewer: What about reading and writing? People are always saying that you need reading and writing for whatever you do. Do you need reading and writing skills in banking?

Jackie: I don’t think so, ’cause, say, if you don’t know how to spell somebody’s name, when they first come up to you, they have to give you their California ID. So you could look on there and put it in the computer like that . . . push it in on those buttons.

Alma: But you still gonna have to look at it and read and write. . . . You’ve got to read those numbers when you cash their money; that’s reading and writing. . . . If you can’t read and write, you’re not going to get hired no way.

Jackie: That’s true.
Jackie and Alma, students in a vocational program on banking and finance, disagree about the nature and extent of the reading and writing actually involved in being a bank teller. They do agree, however, that literacy (or some credential attesting to it) would be a requirement for getting hired in the first place, even if such skills were unimportant in carrying out the job itself. From what I can tell by examining popular literature that is noteworthy for its doomsday tone, Jackie and Alma are right. There is consensus among employers, government officials, and literacy providers that U.S. workers are "illiterate" to a disturbing extent. They agree further that higher levels of literacy are increasingly needed for many types of work, and that literacy tests, "audits," and instruction are, therefore, necessary phenomena in the workplace.

I find most current characterizations of workplace (il)literacy troublesome and harmful, and in this article, I hope to show why. To begin, I will illustrate some widely held assumptions about literacy, work, and workers — the debatable though largely uncontested beliefs that turn up again and again in policy statements, program descriptions, and popular articles. Most troubling is the now commonplace assertion, presented as a statement of fact, that because they apparently lack literacy and other "basic" skills, U.S. workers can be held accountable for our country's lagging economy and the failure of its businesses to compete domestically and internationally. I want to give space to this dominant rhetoric — the call to arms by leaders in business, industry, and government to educate U.S. workers before it is too late — because efforts now well underway to design, implement, and evaluate workplace literacy programs are based largely on these notions.

In the rest of this article, I hope to complicate and challenge these views. Drawing on recent sociocognitive and historical research on literacy and work, I suggest that many current characterizations of literacy, of literacy at work, and of workers as illiterate and therefore deficient are inaccurate, incomplete, and misleading. I argue that we have not paid enough attention, as we measure reading rates, design curricula, and construct lists of essential skills, to how people experience instructional programs and to how they accomplish work. Nor have we often or critically examined how literacy can play a role in promoting economic productivity or in facilitating personal empowerment in the context of particular work situations and training for work. Nor is it common, in studies of work or of reading and writing at work, to acknowledge the perspectives of workers — to discover the incentives and disincentives they perceive and experience for acquiring and exercising literate skills.

Alternate points of view and critical reassessments are essential if we are ever to create frameworks for understanding literacy in relation to work; if we are ever to design literacy programs that have any chance of speaking to the needs and aspirations of workers as well as employers; and, most importantly, if we are ever to create structures for participation in education and work that are equitable and democratic. The main point of this article is that we must allow different voices to be heard, voices like those of Alma and Jackie. We must see how different stories and other voices can amend, qualify, and fundamentally challenge the popular, dominant myths of literacy and work.
Current Views on Workplace Literacy

In the following sections I present some widespread, popular conceptions of literacy and its relationships to work. To illustrate what I will call the “popular discourse” of workplace literacy — the common values and viewpoints reflected in currently dominant ways of talking and writing about the issue — I quote directly from policy documents, newspapers, magazines, and interviews. In this way, I hope to capture the voices and suggest something of the ideologies that dominate current debates about education and work. I view the arguments and ideologies represented by these quotations as examples of what Giroux and McLaren (1989) have described more generally as “the conservative discourse of schooling” (p. xiv), wherein public schools are defined as “agents of social discipline and economic regulation” (p. xv) that are valued only insofar as they turn out workers with the skills, knowledge, habits, and attitudes thought essential in terms of today’s economy. I label the discourse on literacy and work “popular” rather than “conservative” to suggest how persuasive and omnipresent and, well, popular these ways of thinking and talking about workers and literacy have become. Not only do died-in-the-wool conservatives or right-wingers adhere to this discourse, but concerned teachers, committed literacy specialists, well-meaning business people, eager students, interested academics, progressive politicians, worried parents, and a host of others as well — many people who don’t necessarily think of themselves as conservers of the status quo.

“Workers Lack Literacy”

The most pervasive and unquestioned belief about literacy in relation to work is simply that workers do not possess the important literacy skills needed in current and future jobs. Here are examples:

“Millions of Americans are locked out of good jobs, community participation and the democratic process because they lack adequate reading and writing skills,” said Dale Johnson, spokesman for the Working Group on Adult Literacy. “Only leadership from the Presidential level can assure that the literacy needs of all Americans will be met.” (Fiske, 1988, p. 12)

Anyone who has hired new employees or tried to retrain veteran ones is painfully aware of the problem. As much as a quarter of the American labor force — anywhere from 20 million to 27 million adults — lacks the basic reading, writing and math skills necessary to perform in today’s increasingly complex job market. One out of every 4 teenagers drops out of high school, and of those

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1 In addition to the articles and interviews mentioned in this article, other recent examples of the popular discourse of workplace literacy can be found in Basic Skills in the U.S. Work Force (1982); Bernstein (1988); Cole (1977); Holmes and Green (1988); Investing in People: A Strategy to Address America’s Workforce Crisis (1989); Job-Related Basic Skills (1987); Lee (1984); Literacy in the Workplace: The Executive Perspective (1989); Oinonen (1984); Rush, Moe, and Storlie (1986); The School-To-Work Connection (1990); Stone (1991); “Workplace Literacy” (1990); and Workplace Literacy: Reshaping the American Workforce (1992).
who graduate, 1 out of every 4 has the equivalent of an eighth-grade education. How will they write, or even read, complicated production memos for robotized assembly lines? How will they be able to fill backlogged service orders? (Gorman, 1988, p. 56)

The Department of Education estimates that there are about 27,000,000 adult Americans who can’t really read. Almost all of them can sign their names and maybe spell out a headline. Most aren’t totally illiterate the way we used to define illiteracy. But they can’t read the label on a medicine bottle. Or fill out a job application. Or write a report. Or read the instructions on the operation of a piece of equipment. Or the safety directions in a factory. Or a memo from the boss. Maybe they even have trouble reading addresses in order to work as a messenger or delivery man. Certainly they can’t work in an office. (Lacy, 1985, p. 10)

Such accounts are exceedingly common: the shocking illustrations of seemingly basic, taken-for-granted skills that current workers and recent graduates lack; the apparently “hard” evidence that these illustrations apply to large numbers of people; and the frightening implication that, given the severity of the deficits, it is almost too late to solve this enormous problem. Notice the constant emphasis on deficits — what people are unable to do, what they lack, how they fail — and the causal relationship assumed between those deficits and people’s performance at work.

Articles reporting worker illiteracy also often specify which groups among the U.S. population will dominate in future work — women, people of color, and immigrants — and then make the point that, since these groups are likely to have the poorest skills, literacy-related problems in the workplace will likely worsen:

The years of picky hiring are over. Vicious competition for all sorts of workers — entry-level, skilled, seasoned — has begun. Employers must look to the nonmale, the nonwhite, the nonyoung. There may be a push for non-citizens as well: over the next 10 years . . . only 15% of work force entrants will be native-born white males.

Building a new, more diverse work force and making it tick will be one of corporate America’s biggest challenges in the decade ahead. (Ehrlich & Garland, 1988, pp. 107-108)

A growing share of our new workers will come from groups where human resource investments have been historically deficient — minorities, women, and immigrants. Employers will increasingly have to reach into the ranks of the less advantaged to obtain their entry-level work force, frequently those with deficient basic skills. (Former Secretary of Labor Ann McLaughlin, quoted in The Bottom Line, 1988, p. ii)

More and more, American employers will no longer enjoy the luxury of selecting from a field of workers with strong basic skills. The demand for labor will create opportunities for those who are less skilled; the disadvantaged will move up the labor queue and be hired in spite of obvious skill deficiencies. (Carnevale, Gainer, & Meltzer, 1988, p. 2)
U.S. employers, such excerpts suggest, feel put upon and without options; they have no choice now but to hire undesirables like the “nonmale, the nonwhite, the nonyoung” — despite their fears that such people are woefully unprepared. And, not surprisingly, fears that new workers are unprepared are accompanied by talk about the competencies that prepared workers ought ideally to exhibit.

“Literacy Means Basic Skills and More”

In the popular discourse, one often hears of deficits in “basic skills.” Although what is meant by a basic skill is not always explained, the examples of such skills that are often given — being able to read the address on a letter, fill out a job application, decipher supermarket labels — suggest literate abilities that are “basic” in the sense of being simple and fundamental, involving the decoding or encoding of brief texts within a structured task or carrying out elementary addition and subtraction calculations. But it is also common to hear claims that the skills gap extends well beyond basic skills. According to this argument, the problem is not basic skills traditionally and narrowly defined, but basic skills amplified, expanded to include those more complex competencies required for an information age and in reorganized workplaces. The alarm is sounded this way:

The jobs created between 1987 and 2000 will be substantially different from those in existence today: a number of jobs in the least-skilled job classes will disappear while high-skilled professions will grow rapidly. Overall, the skill mix of the economy will be moving rapidly upscale, with most new jobs demanding more education and higher levels of language, math, and reasoning skills. (Johnston & Packer, 1987, p. 96)

Qualifications for today’s middle and low-wage jobs are rising even more rapidly than in the past. In 1965, a car mechanic needed to understand 5,000 pages of service manuals to fix any automobile on the road; today, he must be able to decipher 465,000 pages of technical text, the equivalent of 250 big-city telephone books. (Whitman, Shapiro, Taylor, Saltzman, & Auster, 1989, p. 46)

Reading, writing and arithmetic . . . are just the beginning. Today's jobs also require greater judgment on the part of workers. Clerks at Hartford's Travelers insurance company no longer just type endless claim forms and pass them along for approval by someone else. Instead they are expected to settle a growing number of minor claims on the spot with a few deft punches of the computer keyboard. Now, says Bob Feen, director of training at Travelers: “Entry-level clerks have to be capable of using information and making decisions.” (Gorman, 1988, p. 57)

The popular view that unskilled minorities and women will increasingly dominate the work force while future jobs will require more highly skilled workers (see the next section) is largely based on a widely disseminated report prepared by the Hudson Institute for the Department of Labor, Workforce 2000 (Johnston & Packer, 1987). For a counter argument, see Mishel and Teixeira's The Myth of the Coming Labor Shortage (1991).
The U.S. Department of Labor and the American Society for Training and Development have compiled the following much-cited list of the basic skill groups that employers currently believe are important:

- Knowing how to learn
- Reading, writing, and computation
- Listening and oral communication
- Creative thinking and problem-solving
- Self-esteem, goal setting/motivation, and personal/career development
- Interpersonal skills, negotiation, and teamwork
- Organizational effectiveness and leadership

(Carnevale, Gainer, & Meltzer, 1988, p. 9)

Notice that the traditional idea of basics — reading, writing, and computation — make up just one skill group of seven. Similarly, the U.S. Labor Secretary's Commission on Achieving Necessary Skills (SCANS, 1991) decided that a broad set of skills or “workplace know-how” is required if workers are to succeed in the twenty-first century. According to SCANS, solid job performance depends both upon “foundation skills,” such as reading, writing, math, speaking, reasoning, problem-solving, self-esteem, and integrity, and upon “competencies,” such as being able to allocate resources, work in teams, interpret and communicate information, understand social, organizational, and technological systems, and apply technology to specific tasks. The burden now placed on our “nonmale,” “nonwhite,” “nonyoung” work force seems very high indeed: not only must workers master the traditional basic skills of reading, writing, and arithmetic, they are also expected to demonstrate facility with supposedly newer competencies like problem-solving and teamwork, competencies that often require “nuanced judgement and interpretation” (Lauren Resnick, as summarized in Berryman, 1989, p. 28).

“Illiteracy Costs Businesses and Taxpayers”

In the popular discourse, the bottom line for concern about illiteracy, whether a deficit in basic skills or a lack of nuanced judgement, is economic. Consider the following claims about the cost of illiteracy:

Millions of employees suffering from varying degrees of illiteracy are costing their companies daily through low productivity, workplace accidents and absenteeism, poor product quality, and lost management and supervisory time. (Functional Illiteracy Hurts Business, 1988)

In a major manufacturing company, one employee who didn’t know how to read a ruler mismeasured yards of steel sheet wasting almost $700 worth of material in one morning. This same company had just invested heavily in equipment to regulate inventories and production schedules. Unfortunately, the workers were unable to enter numbers accurately, which literally destroyed inventory records and resulted in production orders for the wrong products. Correcting the errors cost the company millions of dollars and wiped out any
savings projected as a result of the new automation. (*The Bottom Line*, 1988, p. 12)

Already the skills deficit has cost businesses and taxpayers $20 billion in lost wages, profits and productivity. For the first time in American history, employers face a proficiency gap in the work force so great that it threatens the well-being of hundreds of U.S. companies. (Gorman, 1988, p. 56)

Again and again, we hear worker illiteracy being linked directly to big economic losses: due to poor reading and writing skills, workers make costly mistakes, they don’t work efficiently, they produce inferior products, and, apparently, they stay at home a lot. A related economic argument is that since many people cannot qualify for jobs, North America is also losing the buying power of a significant segment of the population (see *Functional Illiteracy Hurts Business*, 1988).

**“Workers Need ‘Functional Context Training’”**

Given widespread perceptions that an increasingly illiterate and poorly skilled work force threatens productivity and competitiveness in high-tech, reorganized workplaces, there are calls for business and industry to support and provide literacy-related and basic skills training:

American employers have seen competency in workplace basics as a prerequisite for hiring and viewed the accumulation of such skills as solely the responsibility of the individual. The employer’s interest focused on measuring the skills of prospective employees and screening out those who were most suitable for hiring. But times are changing. Employers are beginning to see that they must assist their current and future workers to achieve competency in workplace basics if they are to be competitive. (Carnevale, Gaines, & Meltzer, 1988, p. 1)

Business and industry are going to have to pick up a greater portion of education. It would probably cost between $5 billion and $10 billion over the next few years to establish literacy programs and retool current ones. But the returns of that are going to be tenfold. (Thomas Sticht, quoted in Morelli, 1987, p. 4B)

Right now at Motorola, we’re running three or four different approaches, and trying to see which one will meet our employees’ needs the best. In a couple of the programs, we actually teach them what they need to know to do their jobs here, so even though their reading levels might be at the sixth grade, they’re really being taught to read and comprehend documentation they could use on the job. In other places, we teach them what you would an adult at the fifth-grade level: how to read things in a supermarket, how to read a newspaper. (Wiggenborn, 1989, pp. 21–22)

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3 See *Business Council for Effective Literacy: A Newsletter for the Business and Literacy Community*, published especially for the business community to keep employers apprised of developments in adult literacy and to encourage them to provide support in the field.
In the wake of calls for training programs, a whole new market has sprung up for workbook instruction (and its close relative, computer-based instruction) and “how-to-set-up-a-program” guides. Many of these guides give tips on relating literacy training to job tasks, thereby creating programs that provide “functional context training” or instruction that seeks to “integrate literacy training into technical training” (Sticht, Armstrong, Hickey, & Caylor, 1987, p. 107). Indeed, basing instructional materials for literacy training on texts that are used on the job — application forms, brochures, warning signs, manuals, memos — is now almost an axiom for designing workplace literacy programs. One major funder of such projects, the National Workplace Literacy Program of the U.S. Department of Education, recently included as part of its evaluation criteria that a proposal “demonstrates a strong relationship between skills taught and the literacy requirements of actual jobs, especially the increased skill requirements of the changing workplace” (“National Workplace Literacy Program,” 1990, p. 14382).

Current Views Revisited

The popular discourse of workplace literacy is persuasive to a lot of people. It has a logic: workers lack literacy, jobs require more literacy, therefore workers are to blame for trouble at work and employers are faced with remedial training. The goals of workplace literacy appear civic-minded, even laudatory — after all, who would argue against teaching a person to read? I now want to examine this discourse critically, drawing on literacy theory and studies of work. As I question the popular discourse, I will not be claiming that there is no need to worry about literacy, or that people do not need help developing knowledge and skills in order to live up to their potential, or that the nature of work and the literacies associated with it are not in some ways and some situations changing, and changing radically. However, I will be questioning the assumptions that seem to un-

4 Given worries about workers’ skills and the relationship assumed between those skills and a company’s ability to compete, one might expect to see a great deal of corporate investment in the training and retraining of workers, similar to the efforts at Motorola. However, this has not been the case. Although various politicians, policymakers, and literacy specialists are applying pressure (see, e.g., SCANS, 1991), the percentage of companies that currently invest in the training and retraining of their work force remains very low. See America’s Choice: High Skills or Low Wages! (Commission on the Skills of the American Workforce, 1990), Sarmiento (1991), and Mishel and Teixeira (1991).

5 For example, The Bottom Line: Basic Skills in the Workplace (1988); Workplace Basics: The Skills Employers Want (Carnevale, Gaines, & Meltzer, 1988); Upgrading Basic Skills for the Workplace (1989); and Literacy at Work: The Workbook for Program Developers (Philippi, 1991). Publishers are even beginning to produce customized materials for particular industries, for example, Strategic Skill Builders for Banking (Mikulecky & Philippi, 1990).

6 The U.S. Department of Education has published a description of the National Workplace Literacy Program as it has been implemented in its first three funding cycles — Workplace Literacy: Reshaping the American Workforce (1992). For an argument that we should guard against a “new orthodoxy” in designing such programs, including a reliance on a functional context approach, see Schultz (1992).
derlie popular beliefs about literacy, work, and learning. In particular, I will object to the tendency in current discussions to place too much faith in the power of literacy and to put too little credence in people's abilities, particularly those of blue-collar and nontraditional workers (those whom Ehrlich & Garland, 1988, p. 107, describe as "the nonmale, the nonwhite, the nonyoung"). I will argue that the popular discourse of workplace literacy tends to underestimate and devalue human potential and to mis-characterize literacy as a curative for problems that literacy alone cannot solve. Such tendencies obscure other social and economic problems and provide a questionable rationale and modus operandi for current efforts to make the U.S. work force literate. They also provide a smokescreen, covering up key societal problems by drawing our attention to other issues that, while important, are only symptomatic of larger ills.7

Rethinking the Effects of Literacy and Illiteracy

It is ironic that, at a time when the value of literacy has been rediscovered in public discourse, theorists from many disciplines — history, psychology, anthropology, literary theory, critical theory, feminist theory — are engaged in questioning the grand claims that traditionally have been made for it. At one time, scholars talked of literacy as essential for cognitive development or as transformative in its effect on mental processes (for example, Goody & Watt, 1968; Olson, 1977; Ong, 1982). Others have also put great stock in the social, economic, and political effects of literacy — UNESCO exemplifies such views in its adult literacy campaigns in so-called "developing nations" (see UNESCO, 1976).

Graff (1979, 1987), however, has called the tendency to associate the value of reading and writing with socioeconomic development and individual growth "the literacy myth." He has pointed out that, contrary to conventional wisdom, societies have at times taken major steps forward in trade, commerce, and industry without high levels of literacy — during, for example, the commercial revolution of the Middle Ages and the eighteenth-century protoindustrialization in rural areas (1987, p. 11). Conversely, higher levels of literacy have not always, in modern times, been the starting place for economic development. Claims about the consequences of literacy for intellectual growth have also been tempered by recent sociocognitive research. For example, in one of the most extensive investigations of the psychology of literacy, Scribner and Cole (1981) scaled down the usual generalizations "about the impact of literacy on history, on phi-

7 See, for example, Apple (1987), who writes, "It is possible to claim that by shifting the public's attention to problems of education, the real sources of the current crises are left unanalyzed. That is, the crisis of the political economy of capitalism is exported from the economy onto the State. The State then in turn exports the crisis downward onto the school. Thus, when there is severe unemployment, a disintegration of traditional patterns of authority, and so on, the blame is placed on students' lack of skills, on their attitudes, on their 'functional illiteracy'. The structural problems of poverty, of the de-skilling and elimination of jobs, of capital flight, of systemic racism and sexism, problems that are 'naturally' generated out of our current economic and political arrangements, are distanced from our discussions" (p. viii; see also Apple, 1985).
losophy, and on the minds of individual human beings" to the more modest conclusion that "literacy makes some difference to some skills in some contexts" (p. 234).

Contemporary claims about the connection between the economic difficulties of business and industry and the literacy and basic skill deficits of workers thus stand in sharp contrast to current revisionist thinking about literacy. Popular articles repeat stories of individual workers at specific companies who fail to read signs or perform some work-related task involving literacy, and thereby make costly errors; these stories then rapidly become an unquestioned part of the popular discourse on workplace literacy. But there are alternate ways to interpret such events, as Darrah (1990) illustrates in his ethnographic study of a computer manufacturing company where the workplace was temporarily reorganized.

In the company Darrah studied, workers with the same job title had previously labored together, moving around the production floor at the direction of lead workers and supervisors. Under the "team concept," new work groups were formed consisting of workers with different specialties, and these groups were ostensibly given total responsibility for producing a line of computers. The management expected that product quality would improve when workers, now with a greater say in decisionmaking, felt a greater commitment to the company's fortunes. In fact, the team concept failed, and when it did, the supervisors blamed the workers. They claimed that these employees, many of them Southeast Asian immigrants, were deficient in oral and written communication skills, and lacked the abilities to self-manage, to "see the big picture," and to analyze the production flow.

Darrah acknowledges that it would have been possible to find instances of workers who did not have the skills the supervisors mentioned. He goes on to demonstrate, however, that the demise of the team concept had little to do with workers' skills, present or absent; rather, it grew from contradictions inherent in how the concept was introduced and experienced. From the beginning, workers were skeptical of management's intentions. For example, the production manager and his supervisors announced the team concept one Thursday, scheduled team discussions for Friday, and instructed workers that beginning on Monday they should "act as if you're the vice-president of your own company" (p. 12). One repair technician commented dubiously to his coworkers after the initial meeting, "They never asked us anything before, but what can we do? We have to do what the company says" (p. 12). Further, workers feared that putting everyone at the same level on a team was a not-so-subtle attempt to eliminate job ladders and hard-won status. They felt shut out from particular kinds of information, even though the team concept was supposed to open communication and encourage workers to understand the totality of production (p. 22). More-

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8 This extensive literature has been reviewed by Street (1984), Bizzell (1987), Salvatori and Hull (1990), and Walters (1990). Even those scholars who support claims for the value of literacy at one time have more recently qualified their endorsements (see Goody, 1987; Olson, in press; Ong, 1988).
over, they did not believe that they had control over work processes that mattered. For example, they were asked to identify mistakes made by people outside the floor — such as improperly specified cables or faulty work by subcontractors — but when they did so, they were a little too successful: the people at fault complained, and the feedback was stopped.

Historical and sociocognitive studies of the consequences of literacy like Graff’s (1979, 1987) and Scribner and Cole’s (1981), as well as ethnographic accounts like Darrah’s (1990, 1992), should make us question some of the facile claims found in the popular discourse of workplace literacy. They ought to make us think twice, for example, before we assume that increasing the grade level at which someone reads will automatically improve his or her performance on a literacy-related job activity (see Mikulecky, 1982). Further, they ought at least to slow us down when we reason that, if people only were literate, they could get decent jobs. Research on the consequences of literacy tells us that there are myriad complex forces — political, economic, social, personal — that can either foster or hinder literacy’s potential to bring about change, as can the variety of literacy that is practiced (Lankshear & Lawler, 1987; Sahni, 1992; Street, 1984). As Graff (1987) concludes in his historical look at the relationship between literacy and economic and social progress, “Literacy is neither the major problem, nor is it the main solution” (p. 82). And in the words of Greene (1989), “The world is not crying out for more literate people to take on jobs, but for job opportunities for the literate and unlettered alike.”

It is hardly credible, given the complexities of work, culture, and ideology in this country, that worker illiteracy should bear the blame for a lagging economy and a failure at international competition, or that literacy should be the solution for such grave problems. According to the World Competitiveness Report (World Economic Forum, 1989), human resources, including education and training, is only one factor among ten that affect a country’s international competitiveness. Others include the dynamism of the economy, industrial efficiency, state interference, and socio-political stability. Some have argued (see, for example, Brint & Karabel, 1989; Sarmiento, 1989), in fact, that claims of illiteracy and other deficiencies serve to make workers convenient scapegoats for problems that originate in a larger arena.

Rethinking Workers’ Potential

The popular discourse of workplace literacy sets up a we/they dichotomy. It stresses the apparent failures of large numbers of people — disproportionately the poor and people of color — to be competent at what are considered run-of-the-mill daily tasks. Exaggerated and influenced by race and class prejudice, this dichotomy has the effect of separating the literate readers of magazines, newspaper articles, and scholarly reports on the literacy crisis from the masses who, we unthinkingly assume, are barely getting through the day. As Fingeret (1983) has commented, “It is difficult for us to conceptualize life without reading and writing as anything other than a limited, dull, dependent existence” (p. 133).
Thus, in our current accounts of workplace literacy, we are just a step away from associating poor performance on literacy tasks with being lesser and qualitatively different in ability and potential. This association has, of course, been common throughout the history of schooling in this country (Cuban & Tyack, 1989; Fingeret, 1989; Hull, Rose, Fraser, & Castellano, 1991; Zehm, 1973) and is carried into the workplace. We have tended to think of children, adolescents, and adults who have done poorly at English and math as intellectually and morally inferior and have used these labels to justify segregating them in special classes, tracks, programs, schools, and jobs.

When applied to workers, the stigma of illiteracy is doubly punitive, for it attaches further negative connotations to people whose abilities have already been devalued by virtue of their employment. There is a longstanding tendency in our society and throughout history to view skeptically the abilities of people who work at physical labor (see Zuboff, 1988). Shaiken (1984) illustrates the recent history of this tendency in his account of skilled machinists in North America. Before the turn of the century, these accomplished workers had pivotal roles in production and considerable power on the shop floor; they lost their status with the advent of scientific management in the workplace — à la Frederick Taylor and others of a like mind. According to Shaiken, Taylor wanted to insure that "production workers [were] as interchangeable as the parts they were producing and skilled workers as limited and controlled as the technology would allow" (p. 23). The centerpiece of Taylor's approach was to monopolize knowledge in management, and to justify this strategy he claimed that ordinary machinists were incapable of understanding the "science" underlying the organization of work processes.

The effects of Taylorism are still with us in the workplace and beyond, both in terms of how work is organized and in terms of how we view workers. The trend is still to break complex work into a multitude of simpler, repetitive jobs — 95 percent of U.S. companies organize the workplace this way (Sarmiento, 1991). We still harbor suspicions, even when choosing to introduce new forms of organization, that our workers won't adapt to or thrive in these new work requirements (see Darrah, 1990). Such an orientation provides fertile ground on which any criticism of workers can grow like kudzu, including claims of illiteracy and its effect on productivity.

As demographics shift and workers increasingly are people of color, women, and immigrants — "groups where human resource investments have been historically deficient" (The Bottom Line, 1988) — we are more likely to view as deficient, different, and separate those who are not or do not appear to be conventionally literate. However, there is also an increasing research literature that can be used to counter such tendencies. Some of this work documents the uses of literacy in non-mainstream communities and thereby helps to dispel the common myth that certain populations have no contact with or interest in print (for example, Heath, 1983). This kind of scholarship also demonstrates that there are literate traditions other than school-based ones, and that these promote
different practices with print. Other work shows how people get along without literacy — through the use of networks of kin and friends, for example (see Fingeret, 1983) — without the feelings of dependency and self-degradation that we sometimes assume are the necessary accompaniment to illiteracy. From the military have come interesting experiments, some unintentional, in which recruits whose test scores fell below the cut-off point were allowed to enter the armed forces; those recruits performed 80 percent to 100 percent as well as “average-aptitude” service members on a variety of indicators (Sticht, Armstrong, Hickey, & Caylor, 1987). Other studies have focused on the reading and writing of under-prepared adults in school settings, showing that literacy performances that appear flawed on the surface do not necessarily imply a lack of intelligence or effort by the writer (see, for example, Bartholomae, 1985; Hull & Rose, 1989, 1990; Shaughnessy, 1977). This work by Shaughnessy and others begins with the assumption that people can acquire whatever literacies they need, given the right circumstances. In Heath’s words, “all normal individuals can learn to read and write, provided they have a setting or context in which there is a need to be literate, they are exposed to literacy, and they get some help from those who are already literate” (1986, p. 23).

McDermott and Goldman (1987) provide a work-related example of the benefits of assuming that all people can learn to read and write, given the need and the support. They describe their encounters with a group of New York City workers who needed to pass a licensing exam. These ninety men were pest exterminators for the city’s public housing units; half of the group had only a conditional license, which left them with lessened job security, lower pay, and zero access to promotions and extra jobs. To be licensed, the men had to pass what amounted to a literacy test using job-related materials and a test of factual knowledge of exterminating. These tests were rumored to be tough. Some men had been on the job for twenty-five years without even attempting the licensing exam, and others had been thwarted by not being able to fill out complex preliminary forms.

McDermott set about organizing an instructional program based on the belief that “all the men knew more than they needed to know for passing the test, and that we had only to tame their knowledge into a form that would enable them to take and pass the test” (p. 6). He arranged peer teaching situations by pairing a group of ten students with two exterminator/instructors who had already passed the exam, and he also relied on the union’s promise to provide whatever instruction was needed until everybody passed. McDermott and Goldman report that most men passed the test on their first try, and the remainder passed the second time around. They go on to raise some important questions: “Why is it that school degrees and literacy tests are the measures of our workers? Whatever happened to job performance?” (1987, p. 5).

When we do look at job performance — when we pay close attention to how people accomplish work — we come away with quite different views of both workers’ abilities and the jobs they perform. There is a relevant research tradi-
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...tion growing out of an interest in and respect for everyday phenomena that attempts to understand and study knowledge and skill in work (see Rogoff & Lave, 1984). Instead of assuming that poor performance in school subjects necessarily dictates poor performance on related tasks at work, researchers have used various qualitative strategies to investigate actual work practices (Lave, 1986). This kind of research has tended to show that people carry out much more complex work practices than we generally would expect on the basis of traditional testing instruments and conventional assumptions about the relationship between school-learning and work-learning.

Kusterer (1978), for example, studied the knowledge that workers acquire and use in jobs pejoratively labelled “unskilled,” documenting the “working knowledge” acquired by machine operators in the cone department of a paper container factory and by bank tellers. He illustrated how operators did not just master the procedures for starting and stopping the machines, cleaning them properly, packing the cones, and labelling their cases — routine components of the job that were officially acknowledged. These workers also had to acquire the know-how necessary to accomplish work when obstacles arose that interrupted habitualized routine, such as “how to keep the machine running, overcome ‘bad’ paper, diagnose the cause of defects, keep the inspectors happy, [and] secure the cooperation of mechanics and material handlers” (p. 45). Kusterer points out that although we usually recognize the basic knowledge necessary to do even highly routinized work, we are much less cognizant of how much supplementary knowledge is also necessary. The need for such knowledge, I would add, belies the common perception of much blue-collar work as unskilled and routinized, and of many blue-collar workers as deficient, incapable, and passive.

Research such as Kusterer’s recognizes the abilities and potential of human workers. So do the later related studies by Wellman (1986) on the “etiquette” of longshoring, by Wenger (1991) on the “communities of practice” constructed by claims adjustors at an insurance agency, and by Scribner (1985, 1987) and Jacob (1986) on the knowledge and skills of workers at a dairy. The promise of this kind of research is that it will bring to light the literate events — the situated writing, reading, talking, and reasoning activities — that characterize the work that people do in particular job and job-training settings, and that it will cast workers in a different light, one that gives their expertise its due.

Rethinking the Nature of Literacy

The popular discourse of workplace literacy centers on the skills that people lack, sometimes “basic” literacy skills and sometimes “higher order” thinking skills. These skills that workers need but do not possess are sometimes determined by experts on blue-ribbon panels (for example, SCANS, 1991), and they are sometimes based on opinion surveys of employers and round table discussions of business executives and educational experts (for example, Carnevale, Gainer, & Meltzer, 1988). But startlingly, such judgments are almost never informed by observations of work, particularly observations that incorporate the
understandings of workers.\(^9\) Instead, skills are listed as abstract competencies and represented as context-free and universal. At best, the skill lists are skimpily customized — for instance, a job requires that a worker “signs forms appropriately,” “uses listening skills to identify procedures to follow,” or “speaks face to face coherently” (Hull & Sechler, 1987, p. vii).

I am sympathetic to the impulse to understand the knowledge and skills needed in particular jobs. But an uncritical acceptance of the skill metaphor — that is, of the belief that literacy as a skill is a neutral, portable technique — can lead to problems in how we conceptualize literacy and literacy instruction. We think of reading or writing as generic, the intellectual equivalent of all-purpose flour, and we assume that, once mastered, these skills can and will be used in any context for any purpose, and that they are ideologically neutral and culture-free. This view of literacy underlies a great deal of research and teaching, but of late it has begun to be challenged (see de Castell, Luke, & MacLennan, 1986; de Castell & Luke, 1989; Street, 1984). The questioning generally focuses on the ways in which it seems erroneous to think of literacy as a unitary phenomenon. On one level, this could simply mean that literacy might be viewed as a set of skills rather than one skill, that a person can perform differently at reading or writing in different situations; for example, that a person will read well when the material is job-related but less well when it’s unconnected to what he or she knows, a point that Sticht makes in his research on the reading performance of military recruits (Sticht, Fox, Hauke, & Zapf, 1977), and that Diehl and Mikulecky (1980) refer to in their work on occupation-specific literacy.

A related implication is that not only will the literacy performances of individuals differ on various tasks, but the uses that people in different communities find for reading and writing will vary too, as Heath (1983) demonstrates in her research on the uses of literacy in three communities in the South. In a later work, she described literacy as having “different meanings for members of different groups, with a corresponding variety of acquisition modes, functions, and uses” (1986, p. 25). A notable instance of these differences occurs among biliterate populations, in which people have a choice of languages in which to speak or write — English and Spanish, for example, or English and Hmong — and choose one or the other based on the social meanings associated with their uses.

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\(^9\) Despite the many and frequent claims concerning the skills, including the literacies, required in reorganized, technologically sophisticated workplaces, as well as what skills workers lack, little is known about the actual skill demands of these workplaces or the kinds of training new jobs might require. There have been studies of the “reading difficulty level” of job-related materials through the application of readability formulas (see Diehl & Mikulecky, 1980; Duffy, 1985; Mikulecky, 1982; Rush, Moe, & Storlie, 1986), as well as attempts to differentiate reading at school from reading at work (see Diehl & Mikulecky, 1980; Sticht, 1979; Sticht, Armstrong, Hickey, & Caylor, 1987; Sticht & Hickey, 1987). And there have been a handful of projects that examined literacy at work within larger ethnographic studies of knowledge acquisition in real-world settings (e.g., Jacob, 1986; Martin & Scribner, 1988; Scribner, 1985, 1987; Scribner & Sachs, 1991). However, for the most part, complaints about worker “illiteracy” arise, as Darrah (1990, 1992) points out, not from detailed observations of work, but from surveys and anecdotal reports (see also Baba, 1991).
But there are other implications of viewing literacy as a multiple construct that offer a different, more sobering critique of the skills metaphor. Consider the following commentary about “what is suppressed in the language of skills”:

Skill in our taken-for-granted sense of the word is something real, an objective set of requirements, an obvious necessity: what’s needed to ride a bicycle, for example. It is a technical issue pure and simple. However, what is forgotten when we think about skills this way is that skills are always defined with reference to some socially defined version of what constitutes competence. (Simon, 1983, p. 243)

Simon reminds us that particular activities, characteristics, and performances are labelled “skills,” depending on which activities, characteristics, and performances are believed to accomplish particular purposes, to serve certain ends, or to promote special interests—usually the purposes, ends, and interests of those in the position to make such judgments. “Listening” in order to “identify procedures to follow” is a valued skill because employers want workers who will follow directions. “Sign[ing] forms appropriately” is a valued skill because supervisors need to keep records and to hold workers accountable. Conversely, Darrah (1990) discovered that there are skills that supervisors don’t acknowledge but that workers recognize and develop — such as learning to represent their decisions in such a way as to “establish their plausibility should they later be challenged” (p. 21; see also Wenger, 1991). “The concept of skill,” Simon argues, “is not just a technical question but is also a question of power and interest” (1983, p. 243).

This point is driven home by Gowen (1990), in her study of the effectiveness of a workplace literacy program serving African-American entry-level workers at a large urban hospital in the southern United States. Gowen examined, among other things, the program’s classroom practices and participant structures, the social relationships among workers and management, and the history of race relations in the region. The program was based on a “functional context approach” in which literacy instruction was linked to job content. Thus, instructors developed a series of lessons based on the memos that one supervisor regularly sent his housekeeping staff. These memos were called “Weekly Tips” and the supervisor thought they were important, although he suspected that employees did not read them. The Tips covered such topics as “Dust Mopping, Daily Vacuuming, Damp Mopping of Corridors and Open Areas, Damp Mopping of Patients’ Rooms, and Spray Buffing Corridors” (p. 253), and lessons devised on the basis of this material asked students to discuss, read, and write about the information in the Weekly Tips.

Gowen found that the employees disliked this instruction. For one thing, they felt they knew a lot more about cleaning than did their supervisors, and they developed “tricks” — Kusterer (1978) would call this “working knowledge” — to get the job done efficiently. One worker commented, “I’ve been at King Memorial for 23 years, and I feel like if I don’t know how to clean now, I will not learn. . . . That’s not going to help me get my GED I don’t think” (Gowen, 1990, p. 261). Another explained in an evaluation of the curriculum: “I didn’t like
rewriting things concerning mopping, cleaning, and dish washing. I felt I already knewed that” (p. 262). Workers reacted to the functional context curriculum by resisting: they stopped coming to class, they finished the work as quickly as possible, or they lost their packet of “Weekly Tips.” Said one student, “So we off that Weekly Tips junk? I don’t want to know nothing about no mopping and dusting” (p. 260). Gowen interpreted such classroom resistance as arising from several factors, including the longstanding African-American tradition of resisting control by the dominant class and the use of the functional context approach to literacy training to exercise control. Another factor was the disparity between the workers’ goals for taking part in the literacy program and the goals that employers and literacy educators had for employee participation.

Gowen’s research throws open the doors of workplace literacy programs, letting us examine reading and writing instruction within one such setting in its many layered complexity. As we plan literacy programs for the North American work force, we would do well to keep her portrait in mind, allowing it to remind us of the ways in which learning to read and write involves something other than acquiring decontextualized decoding, comprehension, and production skills. Literacy can more appropriately be defined as “literacies,” as socially constructed and embedded practices based upon cultural symbol systems and organized around beliefs about how reading and writing might be or should be used to serve particular social and personal purposes and ends (see Cook-Gumperz, 1986; Dyson, 1992; Lankshear & Lawler, 1987; Levine, 1986; Scribner & Cole, 1981; Street, 1984). Thus, to understand literacy, to investigate its effect upon people, to construct situations in which it can empower, is to ask what version of literacy is being offered, and to take into account the socio-cultural, political, and historical contexts in which that version is taught and practiced.

Rethinking the Literacy Requirements of Work and the Nature of Work-Related Training

There is much worry recently that the changing nature of work — the shift toward high-technology manufacturing and service-oriented industries — will bring changing literacy requirements, both in basic literacy skills and advanced or higher literacy skills for workers previously termed blue-collar (Sum, Harrington, & Goedicke, 1986). There is, of course, some disagreement over just how quickly work is changing and whether such changes will indeed result in jobs that require different, additional, or more complex skills (Bailey, 1990; Barton & Kirsch, 1990; Levin & Rumberger, 1983; Mishel & Teixeira, 1991). But the uncertainties that are sometimes expressed in the research literature rarely make their way into the popular discourse on workplace literacy. The descriptions I have seen of recent workplace literacy projects — I have examined descriptions of and proposals for approximately sixty of them — regularly take as a given that literacy is a requirement for everything and anticipate benefits from a literacy program, both for the worker and the company, that are numerous and wide-ranging, such as productivity, promotions, accuracy, on-time delivery, self-esteem, and job retention. There are almost no attempts at qualifying this rhet-
oric. The requirements and benefits of literacy, however, are certainly much more complicated than this.

A case in point is a recent *Los Angeles Times* story about the relocation of a large part of one California-based technology firm to Bangkok (Richards, 1990). The chairman of the company reported that there he had access to cheap labor — Thai women who are "conscientious and compliant." "In Thailand," he said, "there is a lot of close work under microscopes," whereas "it is pretty tough to find people in the U.S. to do that kind of work" (p. D3). So his most highly paid and educated employees — about one-fourth of the company — stayed in the United States, while he looked to Asia for the low-cost portion of his work force. The women in the Bangkok factory speak only Thai (no mention is made of whether they read and write it), as do most of the native-born managers. It seems, then, that being able to converse or write in English is not crucial for most of these workers. Nonetheless, the company provides instruction in English as a Second Language (ESL), during which the young women also acquire, according to an account oblivious to stereotyping, "a sense of urgency," being "asked to set aside a typically gentle, easy-going nature that would rather avoid than confront a problem" (p. D3).

We should keep such stories as this in mind. The relocation of the California high-tech firm to Thailand was a move not to seek out a more literate population, but to take advantage of a cheaper one, whether it is literate or not. In light of economic policies favoring "free trade" agreements with countries such as Mexico, we are likely to hear many more such reports. We need to listen with a skeptical ear when blanket pronouncements are made about literacy and its relation to work — when we are told, for example, that high-tech employment necessarily means increased demands for literacy, that foreign workers are illiterate and therefore only too happy to work for peanuts, or that most workers in industries that are non-information-based lack literate competence. We should be skeptical not in order to deny literacy instruction to anyone nor to disparage efforts to create workplace literacy programs, but to appraise more realistically what literacy as it is defined and practiced in a given context can offer, and to assess what else we need to be concerned about if our sights are set on improving the conditions as well as the products of work.

Another case in point is provided by Zuboff (1988), who has studied, among other industries, several pulp and paper mills, where experienced workers are trying to make the transition from older craft know-how to computer-based knowledge. Instead of walking about the vats and rollers, judging and controlling the conditions of production by touching the pulp, smelling the chemicals, and manually adjusting the levers of machines — relying, that is, on "sentient involvement" (p. 60) — workers are now sequestered in glass booths, their work mediated by algorithms and digital symbols, a computer interface, and reams of data. Here is how one worker expressed the sense of displacement he felt as a result of this change in his job:

With computerization I am further away from my job than I have ever been before. I used to listen to the sounds the boiler makes and know just how it
was running. I could look at the fire in the furnace and tell by its color how it was burning. I knew what kinds of adjustments were needed by the shades of color I saw. A lot of the men also said that there were smells that told you different things about how it was running. I feel uncomfortable being away from these sights and smells. Now I only have numbers to go by. I am scared of that boiler, and I feel that I should be closer to it in order to control it. (Zuboff, 1988, p. 63)

Zuboff’s research demonstrates in riveting detail how some jobs are changing because of new technologies and how some workers will, as a result, be faced with losing those jobs or retooling by acquiring new work practices and skills. To be sure, finding the best means we can to ease the way for workers in such situations is a worthy goal. I believe it is a mistake, though, as we try to understand what skills are needed, to focus all our attention on technology per se, to assume that once we understand Zuboff’s “intellective skills” — those capabilities involved in information-based knowledge — that we are home free. When we think of a worker in front of a computer, we do tend to focus on the individual abilities that a person needs in order to interact with a program. Wenger (1991) points out, however, that if we view intellective skills only as individual abilities, we will overlook important social components in work, such as membership in work-based communities through which particular work practices are generated and sustained (see also Lave & Wenger, 1991).

Wenger (1991) studied the claims-processing center of a large insurance company where workers, mostly women, received claims by mail, “processed” them — determining whether and for what amount a claimant’s policy would cover specific medical costs — and entered them into a computer system. He found that there are crucial differences between the institutional setting that an employer provides and the communal setting that workers themselves construct, and he assigns great importance to the latter: “The practice of a community is where the official meets the non-official, where the visible rests on the invisible, where the canonical is negotiated with the non-canonical” (p. 181). If the objectives of the institution are somehow at cross purposes with the ways of functioning that are developed in these communities of practice — as happened in Darrah’s (1990) computer company and as was often the case in this insurance company — serious problems occur. For example, Wenger noted an aggravating mismatch between how workers were evaluated and the work their jobs required. Although workers needed to spend time and energy answering telephone calls from irate, puzzled, or misinformed claimants — and this service was a necessary interface with customers — the company evaluated the claims processors only on the basis of their speed and accuracy in production. Such mismatches between community practice and institutional demands resulted in what Wenger called “identities of non-participation” (p. 182). That is, workers thought of themselves as only peripherally involved in the meaning of their work, and this disengagement seriously limited the success of the business. It is worth noting, too, that although the insurance workers were evaluated on literacy-related tasks, much of their work involved interpersonal communication, which did not, in contrast, seem to count.
Wenger’s research alerts us to the fact that difficulties will arise when competencies and tools are defined and developed in isolation from workers’ “communities of practice,” and this holds true as much for Zuboff’s mill workers as for the insurance adjusters. As we imagine the training and literacy programs that will greet technological transformations in the workplace, we might question whether the “intellectual skills” we teach are in any way anchored in the practice of the workplace community, and if they are not, what difference our instruction will make. This is another reminder that — contrary to the popular discourse — neither all the problems nor all solutions will reside in illiteracy and literacy. Management and workers have a history, and that history more often than not is one of conflicting interests. Among others, Shaiken (1984) argues that the history of machine automation has been the history of de-skilling — the effort to reduce reliance on workers’ knowledge and thereby to eliminate workers’ control. Thus, rather than welcoming advanced technology with enthusiasm, Shaiken wants to see its development proceed in what he views as more socially responsible ways — creating or maintaining jobs and improving the conditions of work.

In like manner, we might be vigilant against uses of literacy in the workplace that are socially irresponsible. Increasingly, businesses and corporations employ literacy-related tests and assessment instruments to determine whether workers are qualified for hiring and promotions; to certify workers (as with the exterminators’ exam); and to determine whether workers are proficient at the skills their current or future jobs require. These tests and assessment devices may be administered with good intentions. Literacy audits — tests of workers’ reading, writing, math, and reasoning skills — for example, are supposed to result in a customized curriculum. There are several issues worth worrying about, however. Although the courts have ruled that literacy cannot legally be used as a screening device unless the literacy skills required on the test reflect actual job demands (Griggs et al. v. Duke Power Company, 1971), such tests may still eliminate qualified job-seekers through literacy-related demands that do not reflect job performance. Others fear a more deliberate discriminatory use of literacy tests and audits (see Carnevale, Gainer, & Meltzer, 1988). “I am concerned that workplace literacy programs will be used to admit a few and eliminate many,” writes Añorve (1989, p. 40), a workplace literacy specialist. Añorve goes on to predict that high-tech positions may provide excuses to get rid of employees with low reading skills, and he also worries that new communication criteria such as accentless speech may be used to discriminate against immigrants.10 For similar reasons, the AFL-CIO’s Union Guide to Workplace Literacy (Sarmiento & Kay, 1990) also looks on the use of literacy audits in the workplace as potentially abusive, as

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10 His worries are realistic. In Massachusetts, parents recently objected to the transfer of a teacher who spoke English with a Spanish accent from a bilingual class to a “regular” one and drew up a petition to prevent anyone not demonstrating “the accepted and standardized use of pronunciation” from taking teaching jobs in elementary school. The petitioners claimed that they were attempting through their proposed ban to protect the quality of public education during a current period of budget cuts (Canellos, 1992, p. 27).
providing a too-handly rationale to justify decisions that jeopardize workers' earnings and even their jobs.

Understanding the literacy requirements of work is not, then, so simple an issue. Some jobs that are coupled with new technologies may not require much literacy at all (which is not to say they do not require considerable working knowledge). Other, more traditional occupations may involve surprisingly frequent literacy-related activities (see Scribner, 1985). And radically altered jobs may require radically altered literacy capabilities, though the development and exercise of those capabilities will depend on more than literacy alone. Similarly, the complexity that characterizes literacy, literacy learning, and the literacy requirements of work ought to spill over into our conceptions of workplace or work-related literacy programs. It would be needlessly naive to assume, for example, that in order to design a workplace program, one need only collect representative texts used at work and then teach to those documents (one variant of the “functional context approach”), or that whatever is learned in a literacy program will translate directly to promotions or productivity, or even that work-related literacy is something that all workers want to acquire (see Gowen, 1990).

Again, the point is not to argue against work-related literacy projects, but to speak in favor of a serious rethinking of the nature of the instruction we imagine for workers. As we rush headlong to design curricula and programs and to measure reading rates and writing quality, we pay precious little attention to how people experience curricula and programs and for what purposes they choose and need to engage in reading and writing. We steer our ships instead by what corporate and government leaders think they want in a work force and by our own enculturated notions of what teaching is about, even when our students are adults rather than children. Schooling is a bad memory for many adults who are poor performers at literacy, and workplace instruction that is school-based — that relies upon similar participant structures, materials, and assessment techniques — will likely be off-putting by association. I am dismayed, then, to see how frequently proposals for and descriptions of workplace literacy programs rely on school-based notions of teaching and learning. Categories for instruction tend to follow traditional models: ESL, basic skills, GED preparation, or commercially available computer-based programs. Basic skills instruction may be dressed up with occupationally specific materials — hotel workers might practice reading with menus, for example — but the format for this instruction is a teacher in front of a classroom of students with workbooks and readers. Perhaps this approach grows out of the commonplace deficit thinking concerning workers' abilities described earlier. If adult workers lack the literate competencies that we expect children to acquire, then the temptation is to imagine for workers the same instructional practices believed to be appropriate for children.

This is a good time to recall Reder's (1987) research on the comparative aspects of literacy development in three U.S. communities — an Eskimo fishing
village, a community of Hmong immigrants, and a partially migrant, partially settled Hispanic community. In these communities, Reder found that adults often acquired literacy spontaneously, without participating in formal literacy education classes, in response to the perceived needs they had for literacy in their lives. They acquired literacy because they needed to, and they did so in collaboration with others. Reder points out that individuals participated in collaborative literacy practices in a variety of ways. Some were "technically engaged"; that is, they were proficient with paper and pencil and other media. Others were "functionally engaged," helping with the literacy practice by providing specialized knowledge and expertise, such as political savvy. Others were "socially engaged," lending background knowledge and approval and thereby certifying the literacy practice.

Perhaps such research can help us rethink traditional conceptions of adult literacy instruction in the workplace. Like Resnick (1990), Reder proposes an "apprenticeship" model for literacy learning:

Participant structures that provide opportunities for individuals to be functionally engaged in the practice before they have the requisite technological knowledge and skills may be a very successful means of socializing functional knowledge and knowledge of social meanings essential to accomplishment of the practice, stimulating individuals' acquisition of literacy even as they may be just learning basic technological skills. (1987, p. 267)

Instead of (or in addition to) pull-out programs in which workers are sequestered in classrooms, we might imagine apprenticeship arrangements whereby a worker who needs to carry out a complex task involving literacy learns on the job with someone who can already perform that task and, in this way, acquires the requisite technological, functional, and social knowledge. It may be that if we study the workplace to see how such literacy learning occurs "spontaneously," in the absence of formal instruction provided through literacy programs, we may see something similar to this kind of participant structure. We might also find distributed literacy knowledge, where workers typically carry out certain tasks that involve literacy in collaboration with each other, with one person supplying one kind of knowledge and others, different proficiencies. Rather than assuming that structures and practices for learning literacy must be imported from school-based models of teaching and learning, we might do well to study workplaces and communities to see what kinds of indigenous structures and practices might be supported and built upon. What we learn may enrich our school-based versions of literacy and instruction as well.

11 For other attempts to rethink adult literacy instruction in the workplace, see Soifer et al. (1990) and Jurmo (1989).
Different Voices and Other Stories

At the time I knew Alma and Jackie, the students whose comments on literacy at work provide the headnote for this article, they were both enrolled in a short-term vocational program on banking and finance in a community college. Both of these African-American women said that they needed and wanted to work and that they longed to get off public assistance. They dreamed, in fact, of professional, white-collar jobs in banks. Before she enrolled in the banking program, Jackie had been out of high school only two years and had held several short-term jobs, in addition to working at McDonald’s: she had been an aspiring rapper, a janitor at an army base, and a food helper at a park and recreation facility. Alma, on the other hand, was in her forties; she had grown up in Arkansas, raised several children, and had worked only at a convalescent home and as a teacher’s aide. I don’t think either of these women thought of themselves as having a literacy problem, but, rather, as the headnote suggests, they expected to do reading, writing, and calculation at their future bank jobs as a matter of course. I do think, though, that they would be viewed both by potential employers and society at large as having a literacy problem, and that this problem would be seen as an impediment to their success at work.

Both women said they expected to do well in the banking and finance program and at work. “All you have to do is try,” said Jackie. “I think I can master it, whatever it is,” said Alma. And both did do well in the program, coming to class regularly, participating in the “simulated” bank-teller exercises, practicing on the ten-key adding machine, and taking their turn at doing proofs — feeding debit and credit slips through a machine the size and shape of a refrigerator lying on its side. Two months into the semester, representatives of a local bank came to test students’ ten-key skills, administer a timed written exam, and carry out interviews. Jackie did just fine and was hired right away, but Alma failed the written exam, which consisted of visual discriminations and problem-solving. To the relief of everyone, Alma passed the test on her second try, though she confided in me that, rather than working the problems, she had memorized the answers to the problem-solving portion during some practice sessions the instructor had arranged and then simply filled them in during the test.

Jackie and Alma were hired part-time at $6.10 an hour at the same proof-operation center. This center takes up an entire floor of a large bank building and is filled with proof machines — a hundred or so are going at the same time when work is in full-swing — most of them operated by women of color. Workers arrive at 4 p.m. and continue until all their bundles are “proved,” which is around 11 p.m., except on the busiest day, Friday, when work sometimes continues until

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12 The stories of Alma and Jackie, reported below, come from a larger ethnographic study (Hull, 1992). I am aware that in presenting their stories so briefly here I increase the risk of oversimplifying the complexities of their situations and views. Interested readers are urged, then, to examine the longer report. See also Fine (1992), who provides some helpful cautionary comments on the use of personal stories and voices in qualitative research.
after midnight. Jackie worked at this proof-operation center for two months, until she was late three times, the third time by three minutes, and was asked to resign. She blamed her lateness on transportation problems; she had to drop her baby off at a distant, low-cost child-care center, she said, and then take the bus back to the subway stop, and sometimes she was late or the trains did not arrive right on time. Jackie added, though, that she liked working at the proof center: “I would have stayed. . . . I liked the environment and everything . . . you have to even have a card just to get on the elevator.” And she believed that if she could have held on to this job, and if her hours had been increased, she might have been able to make enough money to support herself.  

Being late was not a problem for Alma, but being left-handed was. To make production in the proof-operation center, workers have to process twelve-hundred items an hour — that is, they have to feed twelve-hundred credit and debit slips into a machine with one hand and enter calculations on a ten-key pad with the other. The machines all have the keypad on the right, so if you are left-handed you are at a distinct disadvantage. When I talked to Alma a few months after she, too, had lost her job, she said she felt good about having worked at the bank. “I was doing the work,” she said. “I had no problem opening the machine and closing the machine. I was doing that work.” She was adamant, though, about the lack of relationship between the test she had failed and the job she had performed.  

Right now, both Alma and Jackie are at home taking care of their children. They are presently receiving Aid for Families with Dependent Children, but they both look forward to getting another bank job. The vocational program in banking and finance is thriving, and so, for that matter, is the bank. The program had thirty new students last semester, some of whom will be offered the jobs that Jackie, Alma, and others have vacated.  

Certainly there are literacy practices that Jackie and Alma are not acquainted with; perhaps they even could have benefitted from a workplace literacy program or from “academic” training integrated into their vocational program. But there are many other complex factors in their situations that push literacy from a central concern to the periphery. These factors include short-term, narrowly focused vocational training; the lack of child care at work; part-time employment with no benefits, stressful tasks, few rights, and low pay; and workplaces where women of color inherit the most tedious jobs an industry can offer. To blame the problem on illiteracy in this instance, and I believe in many others, is simply to miss the mark.  

We need to look from other perspectives, to hear other voices and the different stories they can tell. Many people from a variety of disciplines and perspectives are beginning to talk these days about honoring difference. Part of the impetus for these conversations comes simply from the increasing diversity of our country, where different cultures, languages, and orientations by virtue of their numbers and presence are forcing a recognition of North America’s plurality. Part of it comes from educators who are pressed daily to find ways to teach
in classrooms that are nothing if not richly diverse. Part of it comes, too, from a sense among many in academic communities that times are changing intellectually, that a "post-modern" age is now upon us, an age in which there is no widespread belief in a common rationality or a shared knowledge, but, rather, a growing conception of the world as "continuously changing, irreducibly various, and multiply configurable" (Greene, 1989).

In this age of difference, diversity, otherness, and change, we are lost if we do not learn to admit other views, to hear other voices, other stories. This means, for those workers whose situations have been represented univocally in the popular discourse of workplace illiteracy, looking anew at training programs and workplaces, not simply by measuring reading rates, collecting work-based literacy materials, or charting productivity — the customary focuses of much previous research and even teaching (see Grubb, Kalman, Castellano, Brown, & Bradby, 1991; Sticht, 1988). We need, rather, to seek out the personal stories of workers like Jackie and Alma, and to learn what it is like to take part in a vocational program or a literacy class and what effect such an experience has, really, on work and living. We need to look with a critical eye at how work gets accomplished and to examine what roles literacy has within work and what relationships exist between skills at work and the rights of workers. We must ask what is meant by literacy, and in what contexts and under what circumstances, this literacy will be empowering. We need to ask, then, with Maxine Greene (1989), "How much, after all, depends on literacy itself?" What else must we be concerned with, besides literacy, if we want to improve the conditions and products of work?

In the popular discourse of workplace literacy, we seem to tell just a few stories. We are able to tell sad tales of people who live impoverished lives and cause others to suffer because they don't know how to read and write. Or we are able to tell happy, Horatio Alger-type stories of people who prosper and contribute to the common good because they have persevered and become literate. We have our dominant myths — our story grammars, if you will — of success and work, from which it is hard to break free. Other stories, with their alternate viewpoints, different voices, and other realities, can help us amend, qualify, and fundamentally challenge the popular discourse of literacy and work.

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