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# ONE

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

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*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. But they do not doubt, even were such skills unimportant in carrying out the job itself, that literacy (or some credential attesting to it) would be a requirement for getting hired in the first place.

From what I can tell by examining a 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 American workers to a disturbing extent are “illiterate”; 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 chapter I hope to show why. To begin, I will illustrate some widely held, fundamental assumptions about literacy, work, and workers—the debatable though largely uncontested beliefs which 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 at home and internationally. I want to give space to this dominant rhetoric—the calls to arms by leaders in business, industry, and government to educate American workers before it is too late—for efforts proceed apace to design, implement, and evaluate workplace literacy programs largely on the basis of these notions.

The remainder of this chapter (and the subsequent chapters in this book) is spent complicating and challenging these views. Drawing on recent sociocognitive and historical research on literacy and work, I will suggest that many current characterizations of literacy, literacy at work, and workers as illiterate—as 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 programs for work. Nor is it common, in studies of work or 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 a prayer 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 introductory chapter is that we must allow different voices be heard, voices like those of Alma and Jackie. We must see, as we will in the remainder of this book, how different

stories and other voices can amend, qualify, and fundamentally challenge the popular, dominant myths of literacy, skills, 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.<sup>1</sup> 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 these voices and ideologies as a specific instance 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), being 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 skills 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 and committed literacy specialists, well-meaning business people and eager students, interested academics and progressive politicians, worried parents, and a host of others as well—many people, I want to suggest, 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 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 deliveryman. 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 which 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 often specify as well which groups among the American population will dominate in future work—that is, women, minorities, 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)

American employers, such excerpts suggest, feel put upon and without option; 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.<sup>2</sup> 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 calculations such as addition and subtraction. 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 bell is rung 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 & Pacer, 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)

Here is a much-cited list compiled by the U.S. Department of Labor and the American Society for Training and Development 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 et al., 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" workforce is very high indeed: not only must workers master the traditional basic skills of reading, writing, and arithmetic, they are now also expected to demonstrate facility with supposedly newer competencies like problem-solving and teamwork, competencies which often require "nuanced judgment 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 judgment, 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:<sup>3</sup>

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 et al., 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. (Wiggenhorn, 1989, pp. 21–22)

In the wake of calls for training programs,<sup>4</sup> 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.<sup>5</sup> Many of these guides give tips on how to relate literacy training to job tasks, thereby creating programs to provide “functional context training.” 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).<sup>6</sup>

## 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 want now 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 there is not a problem in helping people 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 underlie popular beliefs about literacy, work, and learning. In particular, I will object to the tendency in current discussions to place too great a faith in the power of literacy and to put too little credence in people's abilities, particularly those of non-traditional and blue-collar workers (those whom



Ehrlich & Garland, 1988, p. 107, decry 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 that literacy alone cannot solve. They also provide a smokescreen, covering up certain key societal problems by drawing our attention to other issues that, while important, are only symptomatic of larger ills.<sup>7</sup>

### *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. There was a time when 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’s adult literacy campaigns in so-called “developing nations” being a prime example (see UNESCO, 1976).

Graff (1979, 1986), 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, at many times and in many places there have been 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 philosophy, 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).<sup>8</sup>

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. (See also Darrah's chapter in this volume.)

In the company Darrah studied, workers with the same job title had 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 decision-making, felt a greater commitment to the company's fortunes. In fact, the team concept failed, and when it did, the management 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 production flow.

Darrah acknowledges that it would have been possible to find instances of workers who did not have the skills the managers 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 this concept was introduced and experienced. From the beginning workers were skeptical about management's intentions. For example, the production manager and his supervisors announced the team concept on Thursday, scheduled team discussion 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). Moreover, 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 (cf. Mikulecky, 1982). Further, they ought to at least slow us down when we reason that, if only people were literate, they could all get jobs. Research on the consequences of literacy tells us that there are various complex forces—political, economic, social, personal—that either can 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 (1986) 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 Maxine 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 burden of causality 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 (1989), human resources, which include education and training, is only one factor among ten which affect a country's international competitiveness. Others include the dynamism of the economy, industrial efficiency, state interference, and sociopolitical stability. Some have argued (see, for example, Brint & Karabel, 1989; Sarmiento, 1989), in fact, that claims of illiteracy and other deficiencies make workers convenient scapegoats for problems which 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 aptly 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 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 (Zehm, 1973; Cuban & Tyack, 1989; Fingeret, 1989; Hull, Rose, Fraser, & Castellano, 1991) and is carried into the workplace. We have tended to think of children, adolescents, and young adults who have done poorly at English and math as intellectually and morally inferior and have used these labels to segregate 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 long-standing tendency in our society and even throughout history to view skeptically the abilities of people who work at physical labor (cf. 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. 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 still organize work 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 environments (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 minorities, women, and immigrants—“groups where human resource investments have been historically deficient” (*The Bottom Line*, 1988)—the tendency to view as deficient, different, and separate those who are not or do not appear to be conventionally literate is likely to grow. 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 (e.g., Heath, 1983). This kind of scholarship also demonstrates that there are other literate traditions besides 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 (e.g., 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 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 underprepared 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 (e.g., Shaughnessy, 1977; Bartholomae, 1985; Hull & Rose, 1989, 1990). 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 (1986) 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” (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 these 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 all 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 tradition growing out of an interest in and respect for everyday phenomena that attempts to understand and study knowledge and skill in work (cf. 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). What this kind of research has tended to show is 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 labeled "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 labeling 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 we usually recognize the basic knowledge necessary to do even highly routinized work, but 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 workers as deficient, incapable, and passive.

Research such as Kusterer's valorizes the abilities and potential of human workers, and rightly so. 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 adjusters at an insurance agency, and by Scribner (1985, 1987) and her colleague (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—which 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 (e.g., SCANS, 1991), and they are sometimes based on opinion surveys of employers and round table discussions of business executives and educational experts (e.g., Carnevale et al., 1988). But startlingly, such judgments are almost never informed by observations of work, particularly observations which incorporate the understandings of workers.<sup>9</sup> 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. Bundled with the notion of skills are notions of generality and neutral technique. We think of reading or writing as generic, the intellectual equivalent of all-purpose flour, and we believe that, once mastered, these skills can and will be used in any context for any purpose. This view of literacy underlies a great deal of research and teaching, but of late it has begun to be challenged (cf. Street, 1984; de Castell, Luke, & MacLennan, 1986; de Castell & Luke, 1989). 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, that a person will read well, for example, 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 (e.g., Sticht, Fox, Hauke, & Zapf, 1976), 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 among non-mainstream communities in the North American 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.

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 labeled “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 (1991) discovered in his ethnographic study of a wire and cable company that there are skills that supervisors don’t acknowledge but 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; cf. Wenger, 1991). “The concept of skill,” Simon (1983) argues, “is not just a technical question but is also a question of power and interest” (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 this 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 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 “supplementary 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 at the end of the unit, “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 long-standing 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. (See also the chapters in this volume by Kalman & Losey; D’Amico & Schnee; and Gowen & Bartlett.) As we plan literacy programs for the North American workforce, 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 sociocultural, 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, service-oriented industries, and new forms of organization such as self-directed work teams—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 which require different, additional, or more complex skills (e.g., Levin & Rumberger, 1983; Bailey, 1990; Barton & Kirsch, 1990). 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 rhetoric. 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 workforce. 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 relations 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 what Zuboff calls “sentient involvement” (p. 60)—workers are now sequestered in glass booths and 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. (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 intellectual 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 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 simply 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