

A Pedagogy of Multiliteracies: Designing Social Futures

THE NEW LONDON GROUP¹

In this article, the New London Group presents a theoretical overview of the connections between the changing social environment facing students and teachers and a new approach to literacy pedagogy that they call "multiliteracies." The authors argue that the multiplicity of communications channels and increasing cultural and linguistic diversity in the world today call for a much broader view of literacy than portrayed by traditional language-based approaches. Multiliteracies, according to the authors, overcomes the limitations of traditional approaches by emphasizing how negotiating the multiple linguistic and cultural differences in our society is central to the pragmatics of the working, civic, and private lives of students. The authors maintain that the use of multiliteracies approaches to pedagogy will enable students to achieve the authors' twin goals for literacy learning: creating access to the evolving language of work, power, and community, and fostering the critical engagement necessary for them to design their social futures and achieve success through fulfilling employment.

If it were possible to define generally the mission of education, one could say that its fundamental purpose is to ensure that all students benefit from learning in ways that allow them to participate fully in public, community, and economic life. Literacy pedagogy is expected to play a particularly important role in fulfilling this mission. Pedagogy is a teaching and learning relationship that creates the potential for building learning conditions leading to full and equitable social participation. Literacy pedagogy has traditionally meant teaching and learning

¹ This discussion of the future of literacy pedagogy is coauthored by: Courtney Cazden, Harvard University, Graduate School of Education, USA; Bill Cope, National Languages and Literacy Institute of Australia, Centre for Workplace Communication and Culture, University of Technology, Sydney, and James Cook University of North Queensland, Australia; Norman Fairclough, Centre for Language in Social Life, Lancaster University, UK; Jim Gee, Hiatt Center for Urban Education, Clark University, USA; Mary Kalantzis, Institute of Interdisciplinary Studies, James Cook University of North Queensland, Australia; Gunther Kress, Institute of Education, University of London, UK; Allan Luke, Graduate School of Education, University of Queensland, Australia; Carmen Luke, Graduate School of Education, University of Queensland, Australia; Sarah Michaels, Hiatt Center for Urban Education, Clark University, USA; Martin Nakata, School of Education, James Cook University of North Queensland, Australia.

to read and write in page-bound, official, standard forms of the national language. Literacy pedagogy, in other words, has been a carefully restricted project — restricted to formalized, monolingual, monocultural, and rule-governed forms of language.

In this article, we attempt to broaden this understanding of literacy and literacy teaching and learning to include negotiating a multiplicity of discourses. We seek to highlight two principal aspects of this multiplicity. First, we want to extend the idea and scope of literacy pedagogy to account for the context of our culturally and linguistically diverse and increasingly globalized societies, for the multifarious cultures that interrelate and the plurality of texts that circulate. Second, we argue that literacy pedagogy now must account for the burgeoning variety of text forms associated with information and multimedia technologies. This includes understanding and competent control of representational forms that are becoming increasingly significant in the overall communications environment, such as visual images and their relationship to the written word — for instance, visual design in desktop publishing or the interface of visual and linguistic meaning in multimedia. Indeed, this second point relates closely back to the first; the proliferation of communications channels and media supports and extends cultural and subcultural diversity. As soon as our sights are set on the objective of creating the learning conditions for full social participation, the issue of differences becomes critically important. How do we ensure that differences of culture, language, and gender are not barriers to educational success? And what are the implications of these differences for literacy pedagogy?

This question of differences has become a main one that we must now address as educators. And although numerous theories and practices have been developed as possible responses, at the moment there seems to be particular anxiety about how to proceed. What is appropriate education for women, for indigenous peoples, for immigrants who do not speak the national language, for speakers of non-standard dialects? What is appropriate for all in the context of the ever more critical factors of local diversity and global connectedness? As educators attempt to address the context of cultural and linguistic diversity through literacy pedagogy, we hear shrill claims and counterclaims about political correctness, the canon of great literature, grammar, and back-to-basics.

The prevailing sense of anxiety is fueled in part by the sense that, despite goodwill on the part of educators, despite professional expertise, and despite the large amounts of money expended to develop new approaches, there are still vast disparities in life chances — disparities that today seem to be widening still further. At the same time, radical changes are occurring in the nature of public, community, and economic life. A strong sense of citizenship seems to be giving way to local fragmentation, and communities are breaking into ever more diverse and subculturally defined groupings. The changing technological and organizational shape of working life provides some with access to lifestyles of unprecedented affluence, while excluding others in ways that are increasingly related to the outcomes of education and training. It may well be that we have to rethink what we are teaching, and, in particular, what new learning needs literacy pedagogy might now address.

The ten authors of this text are educators who met for a week in September 1994 in New London, New Hampshire, in the United States, to discuss the state of literacy pedagogy. Members of the group had either worked together or drawn from each other's work over a number of years. The main areas of common or complementary concern included the pedagogical tension between immersion and explicit models of teaching; the challenge of cultural and linguistic diversity; the newly prominent modes and technologies of communication; and changing text usage in restructured workplaces. When we met in 1994, our purpose was to consolidate and extend these relationships in order to address the broader issue of the purposes of education, and, in this context, the specific issue of literacy pedagogy. It was our intention to pull together ideas from a number of different domains and a number of different English-speaking countries. Our main concern was the question of life chances as it relates to the broader moral and cultural order of literacy pedagogy.

Being ten distinctly different people, we brought to this discussion a great variety of national, life, and professional experiences. Courtney Cazden from the United States has spent a long and highly influential career working on classroom discourse, on language learning in multilingual contexts, and, most recently, on literacy pedagogy. Bill Cope, from Australia, has written curricula addressing cultural diversity in schools, and has researched literacy pedagogy and the changing cultures and discourses of workplaces. From Great Britain, Norman Fairclough is a theorist of language and social meaning, and is particularly interested in linguistic and discursive change as part of social and cultural change. James Gee, from the United States, is a leading researcher and theorist on language and mind, and on the language and learning demands of the latest "fast capitalist" workplaces. Mary Kalantzis, an Australian, has been involved in experimental social education and literacy curriculum projects, and is particularly interested in citizenship education. Gunther Kress, from Great Britain, is best known for his work on language and learning, semiotics, visual literacy, and the multimodal literacies that are increasingly important to all communication, particularly the mass media. Allan Luke, from Australia, is a researcher and theorist of critical literacy who has brought sociological analysis to bear on the teaching of reading and writing. Carmen Luke, also from Australia, has written extensively on feminist pedagogy. Sarah Michaels, from the United States, has had extensive experience in developing and researching programs of classroom learning in urban settings. Martin Nakata, an Australian, has researched and written on the issue of literacy in indigenous communities.

Creating a context for the meeting were our differences of national experience and differences of theoretical and political emphasis. For instance, we needed to debate at length the relative importance of immersion and explicit teaching; our differing expert interests in the areas of multimedia, workplace literacies, and cultural and linguistic diversity; and the issue of the extent to which we should compromise with the learning expectations and ethos of new forms of workplace organization. We engaged in the discussions on the basis of a genuine commitment to collaborative problem-solving, bringing together a

team with different knowledge, experiences, and positions in order to optimize the possibility of effectively addressing the complex reality of schools.

Being aware of our differences, we shared the concern that our discussion might not be productive, yet it was: *because* of our differences, combined with our common sense of unease, we were able to agree on the fundamental problem — that is, that the disparities in educational outcomes did not seem to be improving. We agreed that we should get back to the broad question of the social outcomes of language learning, and that we should, on this basis, rethink the fundamental premises of literacy pedagogy in order to influence practices that will give students the skills and knowledge they need to achieve their aspirations. We agreed that in each of the English-speaking countries we came from, what students needed to learn was changing, and that the main element of this change was that there was not a singular, canonical English that could or should be taught anymore. Cultural differences and rapidly shifting communications media meant that the very nature of the subject — literacy pedagogy — was changing radically. This article is a summary of our discussions.

The structure of this article evolved from the New London discussions. We began the discussions with an agenda that we had agreed upon in advance, which consisted of a schematic framework of key questions about the forms and content of literacy pedagogy. Over the course of our meeting, we worked through this agenda three times, teasing out difficult points, elaborating on the argument, and adapting the schematic structure that had been originally proposed. One team member typed key points, which were projected onto a screen so we could discuss the wording of a common argument. By the end of the meeting, we developed the final outline of an argument, subsequently to become this article. The various members of the group returned to their respective countries and institutions, and worked independently on the different sections; the draft was circulated and modified; and, finally, we opened up the article to public discussion in a series of plenary presentations and small discussion groups led by the team at the Fourth International Literacy and Education Research Network Conference held in Townsville, Australia, in June-July 1995.

This article is the result of a year's exhaustive discussions, yet it is by no means a finished piece. We present it here as a programmatic manifesto, as a starting point of sorts, open and tentative. The article is a theoretical overview of the current social context of learning and the consequences of social changes for the content (the "what") and the form (the "how") of literacy pedagogy. We hope that this article might form the basis for open-ended dialogue with fellow educators around the world; that it might spark ideas for possible new research areas; and that it might help frame curriculum experimentation that attempts to come to grips with our changing educational environment.

We decided that the outcomes of our discussions could be encapsulated in one word — multiliteracies — a word we chose to describe two important arguments we might have with the emerging cultural, institutional, and global order: the multiplicity of communications channels and media, and the increasing saliency of cultural and linguistic diversity. The notion of multiliteracies supple-

ments traditional literacy pedagogy by addressing these two related aspects of textual multiplicity. What we might term “mere literacy” remains centered on language only, and usually on a singular national form of language at that, which is conceived as a stable system based on rules such as mastering sound-letter correspondence. This is based on the assumption that we can discern and describe correct usage. Such a view of language will characteristically translate into a more or less authoritarian kind of pedagogy. A pedagogy of multiliteracies, by contrast, focuses on modes of representation much broader than language alone. These differ according to culture and context, and have specific cognitive, cultural, and social effects. In some cultural contexts — in an Aboriginal community or in a multimedia environment, for instance — the visual mode of representation may be much more powerful and closely related to language than “mere literacy” would ever be able to allow. Multiliteracies also creates a different kind of pedagogy, one in which language and other modes of meaning are dynamic representational resources, constantly being remade by their users as they work to achieve their various cultural purposes.

Two main arguments, then, emerged in our discussions. The first relates to the increasing multiplicity and integration of significant modes of meaning-making, where the textual is also related to the visual, the audio, the spatial, the behavioral, and so on. This is particularly important in the mass media, multimedia, and in an electronic hypermedia. We may have cause to be skeptical about the sci-fi visions of information superhighways and an impending future where we are all virtual shoppers. Nevertheless, new communications media are reshaping the way we use language. When technologies of meaning are changing so rapidly, there cannot be one set of standards or skills that constitute the ends of literacy learning, however taught.

Second, we decided to use the term “multiliteracies” as a way to focus on the realities of increasing local diversity and global connectedness. Dealing with linguistic differences and cultural differences has now become central to the pragmatics of our working, civic, and private lives. Effective citizenship and productive work now require that we interact effectively using multiple languages, multiple Englishes, and communication patterns that more frequently cross cultural, community, and national boundaries. Subcultural diversity also extends to the ever broadening range of specialist registers and situational variations in language, be they technical, sporting, or related to groupings of interest and affiliation. When the proximity of cultural and linguistic diversity is one of the key facts of our time, the very nature of language learning has changed.

Indeed, these are fundamental issues about our future. In addressing these issues, literacy educators and students must see themselves as active participants in social change, as learners and students who can be active designers — makers — of social futures. We decided to begin the discussion with this question of social futures.

Accordingly, the starting point of this article is the shape of social change — changes in our working lives, our public lives as citizens, and our private lives as members of different community lifeworlds. The fundamental question is this: What do these changes mean for literacy pedagogy? In the context of these

changes we then go on to conceptualize the “what” of literacy pedagogy. The key concept we introduce is that of Design, in which we are both inheritors of patterns and conventions of meaning and at the same time active designers of meaning. And, as designers of meaning, we are designers of social futures — workplace futures, public futures, and community futures. The article goes on to discuss six design elements in the meaning-making process: those of Linguistic Meaning, Visual Meaning, Audio Meaning, Gestural Meaning, Spatial Meaning, and the Multimodal patterns of meaning that relate the first five modes of meaning to each other. In its last major section, the article translates the “what” into a “how.” Four components of pedagogy are suggested: Situated Practice, which draws on the experience of meaning-making in lifeworlds, the public realm, and workplaces; Overt Instruction, through which students develop an explicit metalanguage of Design; Critical Framing, which interprets the social context and purpose of Designs of meaning; and Transformed Practice, in which students, as meaning-makers, become Designers of social futures. In the International Multiliteracies Project upon which we are now embarking, we hope to set up collaborative research relationships and programs of curriculum development that test, exemplify, extend, and rework the ideas tentatively suggested in this article.

The Changing Present and Near Futures: Visions for Work, Citizenship, and Lifeworlds

The languages needed to make meaning are radically changing in three realms of our existence: our working lives, our public lives (citizenship), and our private lives (lifeworld).

Changing Working Lives

We are living through a period of dramatic global economic change, as new business and management theories and practices emerge across the developed world. These theories and practices stress competition and markets centered around change, flexibility, quality, and distinctive niches — not the mass products of the “old” capitalism (Boyett & Conn, 1992; Cross, Feather, & Lynch, 1994; Davidow & Malone 1992; Deal & Jenkins, 1994; Dobyns & Crawford-Mason, 1991; Drucker, 1993; Hammer & Champy, 1993; Ishikawa, 1985; Lipnack & Stamps, 1993; Peters, 1992; Sashkin & Kiser, 1993; Senge, 1991). A whole new terminology crosses and re-crosses the borders between these new business and management discourses, on the one hand, and discourses concerned with education, educational reform, and cognitive science, on the other (Bereiter & Scardamalia, 1993; Bruer, 1993; Gardner, 1991; Lave & Wenger, 1991; Light & Butterworth, 1993; Perkins, 1992; Rogoff, 1990). The new management theory uses words that are very familiar to educators, such as knowledge (as in “knowledge worker”), learning (as in “learning organization”), collaboration, alternative assessments, communities of practice, networks, and others (Gee, 1994a). In addition, key terms and interests of various postmodern and critical discourses focusing on liberation, the destruction of hierarchies, and the honoring of di-

versity (Faigley, 1992; Freire, 1968, 1973; Freire & Macedo, 1987; Gee, 1993; Giroux, 1988; Walkerdine, 1986) have found their way into these new business and management discourses (Gee, 1994b).

The changing nature of work has been variously called "postFordism" (Piore & Sable, 1984) and "fast capitalism" (Gee, 1994b). *PostFordism* replaces the old hierarchical command structures epitomized in Henry Ford's development of mass production techniques and represented in caricature by Charlie Chaplin in *Modern Times* — an image of mindless, repetitive unskilled work on the industrial production line. Instead, with the development of postFordism or fast capitalism, more and more workplaces are opting for a flattened hierarchy. Commitment, responsibility, and motivation are won by developing a workplace culture in which the members of an organization identify with its vision, mission, and corporate values. The old vertical chains of command are replaced by the horizontal relationships of teamwork. A division of labor into its minute, deskilled components is replaced by "multiskilled," well-rounded workers who are flexible enough to be able to do complex and integrated work (Cope & Kalantzis, 1995). Indeed, in the most advanced of postFordist, fast capitalist workplaces, traditional structures of command and control are being replaced by relationships of pedagogy: mentoring, training, and the learning organization (Senge, 1991). Once divergent, expert, disciplinary knowledges such as pedagogy and management are now becoming closer and closer. This means that, as educators, we have a greater responsibility to consider the implications of what we do in relation to a productive working life.

With a new worklife comes a new language. A good deal of this change is the result of new technologies, such as the iconographic, text, and screen-based modes of interacting with automated machinery; "user-friendly" interfaces operate with more subtle levels of cultural embeddedness than interfaces based on abstract commands. But much of the change is also the result of the new social relationships of work. Whereas the old Fordist organization depended upon clear, precise, and formal systems of command, such as written memos and the supervisor's orders, effective teamwork depends to a much greater extent on informal, oral, and interpersonal discourse. This informality also translates into hybrid and interpersonally sensitive informal written forms, such as electronic mail (Sproull & Kiesler, 1991). These examples of revolutionary changes in technology and the nature of organizations have produced a new language of work. They are all reasons why literacy pedagogy has to change if it is to be relevant to the new demands of working life, if it is to provide all students with access to fulfilling employment.

But fast capitalism is also a nightmare. Corporate cultures and their discourses of familiarity are more subtly and more rigorously exclusive than the most nasty — honestly nasty — of hierarchies. Replication of corporate culture demands assimilation to mainstream norms that only really works if one already speaks the language of the mainstream. If one is not comfortably a part of the culture and discourses of the mainstream, it is even harder to get into networks that operate informally than it was to enter into the old discourses of formality. This

is a crucial factor in producing the phenomenon of the glass ceiling, the point at which employment and promotion opportunities come to an abrupt stop. And fast capitalism, notwithstanding its discourse of collaboration, culture, and shared values, is also a vicious world driven by the barely restrained market. As we remake our literacy pedagogy to be more relevant to a new world of work, we need to be aware of the danger that our words become co-opted by economically and market-driven discourses, no matter how contemporary and “post-capitalist” these may appear. The new fast capitalist literature stresses adaptation to constant change through thinking and speaking for oneself, critique and empowerment, innovation and creativity, technical and systems thinking, and learning how to learn. All of these ways of thinking and acting are carried by new and emerging discourses. These new workplace discourses can be taken in two very different ways — as opening new educational and social possibilities, or as new systems of mind control or exploitation. In the positive sense, for instance, the emphases on innovation and creativity may fit well with a pedagogy that views language and other modes of representation as dynamic and constantly being remade by meaning-makers in changing and varied contexts. However, it may well be that market-directed theories and practices, even though they sound humane, will never authentically include a vision of meaningful success for all students. Rarely do the proponents of these ideas seriously consider them relevant to people destined for skilled and elite forms of employment. Indeed, in a system that still values vastly disparate social outcomes, there will never be enough room “at the top.” An authentically democratic view of schools must include a vision of meaningful success for all, a vision of success that is not defined exclusively in economic terms and that has embedded within it a critique of hierarchy and economic injustice.

In responding to the radical changes in working life that are currently underway, we need to tread a careful path that provides students the opportunity to develop skills for access to new forms of work through learning the new language of work. But at the same time, as teachers, our role is not simply to be technocrats. Our job is not to produce docile, compliant workers. Students need to develop the capacity to speak up, to negotiate, and to be able to engage critically with the conditions of their working lives.

Indeed, the twin goals of access and critical engagement need not be incompatible. The question is, how might we depart from the latest views and analyses of high-tech, globalized, and culturally diverse workplaces and relate these to educational programs that are based on a broad vision of the good life and an equitable society? Paradoxically, the new efficiency requires new systems of getting people motivated that might be the basis for a democratic pluralism in the workplace and beyond. In the realm of work, we have called this utopian possibility productive diversity, the idea that what seems to be a problem — the multiplicity of cultures, experiences, ways of making meaning, and ways of thinking — can be harnessed as an asset (Cope & Kalantzis, 1995). Cross-cultural communication and the negotiated dialogue of different languages and discourses can be a basis for worker participation, access, and creativity, for the

formation of locally sensitive and globally extensive networks that closely relate organizations to their clients or suppliers, and structures of motivation in which people feel that their different backgrounds and experiences are genuinely valued. Rather ironically, perhaps, democratic pluralism is possible in workplaces for the toughest of business reasons, and economic efficiency may be an ally of social justice, though not always a staunch or reliable one.

Changing Public Lives

Just as work is changing, so is the realm of citizenship. Over the past two decades, the century-long trend towards an expanding, interventionist welfare state has been reversed. The domain of citizenship, and the power and importance of public spaces, is diminishing. Economic rationalism, privatization, deregulation, and the transformation of public institutions such as schools and universities so that they operate according to market logic are changes that are part of a global shift that coincides with the end of the Cold War. Until the eighties, the global geopolitical dynamic of the twentieth century had taken the form of an argument between communism and capitalism. This turned out to be an argument about the role of the state in society, in which the interventionist welfare state was capitalism's compromise position. The argument was won and lost when the Communist Bloc was unable to match the escalating cost of the capitalist world's fortifications. The end of the Cold War represents an epochal turning point. Indicative of a new world order is a liberalism that eschews the state. In just a decade or two, this liberalism has prevailed globally almost without exception (Fukuyama, 1992). Those of us who work either in state-funded or privately funded education know what this liberalism looks like. Market logic has become a much bigger part of our lives.

In some parts of the world, once strong centralizing and homogenizing states have all but collapsed, and states everywhere are diminished in their roles and responsibilities. This has left space for a new politics of difference. In worst case scenarios — in Los Angeles, Sarajevo, Kabul, Belfast, Beirut — the absence of a working, arbitrating state has left governance in the hands of gangs, bands, paramilitary organizations, and ethnonationalist political factions. In best case scenarios, the politics of culture and identity have taken on a new significance. Negotiating these differences is now a life and death matter. The perennial struggle for access to wealth, power, and symbols of recognition is increasingly articulated through the discourse of identity and recognition (Kalantzis, 1995).

Schooling in general and literacy teaching in particular were a central part of the old order. The expanding, interventionary states of the nineteenth and twentieth centuries used schooling as a way of standardizing national languages. In the Old World, this meant imposing national standards over dialect differences. In the New World, it meant assimilating immigrants and indigenous peoples to the standardized "proper" language of the colonizer (Anderson, 1983; Dewey, 1916/1966; Gellner, 1983; Kalantzis & Cope, 1993a).

Just as global geopolitics have shifted, so has the role of schools fundamentally shifted. Cultural and linguistic diversity are now central and critical issues. As a

result, the meaning of literacy pedagogy has changed. Local diversity and global connectedness mean not only that there can be no standard; they also mean that the most important skill students need to learn is to negotiate regional, ethnic, or class-based dialects; variations in register that occur according to social context; hybrid cross-cultural discourses; the code switching often to be found within a text among different languages, dialects, or registers; different visual and iconic meanings; and variations in the gestural relationships among people, language, and material objects. Indeed, this is the only hope for averting the catastrophic conflicts about identities and spaces that now seem ever ready to flare up.

The decline of the old, monocultural, nationalistic sense of “civic” has a space vacated that must be filled again. We propose that this space be claimed by a civic pluralism. Instead of states that require one cultural and linguistic standard, we need states that arbitrate differences. Access to wealth, power, and symbols must be possible no matter what one’s identity markers — such as language, dialect, and register — happen to be. States must be strong again, but not to impose standards: they must be strong as neutral arbiters of difference. So must schools. And so must literacy pedagogy. This is the basis for a cohesive sociality, a new civility in which differences are used as a productive resource and in which differences are the norm. It is the basis for the postnationalist sense of common purpose that is now essential to a peaceful and productive global order (Kalanitzis & Cope, 1993b).

To this end, cultural and linguistic diversity is a classroom resource just as powerfully as it is a social resource in the formation of new civic spaces and new notions of citizenship. This is not just so that educators can provide a better “service” to “minorities.” Rather, such a pedagogical orientation will produce benefits for all. For example, there will be a cognitive benefit to all children in a pedagogy of linguistic and cultural pluralism, including for “mainstream” children. When learners juxtapose different languages, discourses, styles, and approaches, they gain substantively in meta-cognitive and meta-linguistic abilities and in their ability to reflect critically on complex systems and their interactions. At the same time, the use of diversity in tokenistic ways — by creating ethnic or other culturally differentiated commodities in order to exploit specialized niche markets or by adding festive, ethnic color to classrooms — must not paper over real conflicts of power and interest. Only by dealing authentically with them can we create out of diversity and history a new, vigorous, and equitable public realm.

Civic pluralism changes the nature of civic spaces, and with the changed meaning of civic spaces, everything changes, from the broad content of public rights and responsibilities to institutional and curricular details of literacy pedagogy. Instead of core culture and national standards, the realm of the civic is a space for the negotiation of a different sort of social order: where differences are actively recognized, where these differences are negotiated in such a way that they complement each other, and where people have the chance to expand their cultural and linguistic repertoires so that they can access a broader range of cultural and institutional resources (Cope & Kalantzis, 1995).

Changing Private Lives

We live in an environment where subcultural differences — differences of identity and affiliation — are becoming more and more significant. Gender, ethnicity, generation, and sexual orientation are just a few of the markers of these differences. To those who yearn for “standards,” such differences appear as evidence of distressing fragmentation of the social fabric. Indeed, in one sense it is just this historical shift in which singular national cultures have less hold than they once did. For example, one of the paradoxes of less regulated, multi-channel media systems is that they undermine the concept of collective audience and common culture, instead promoting the opposite: an increasing range of accessible subcultural options and the growing divergence of specialist and subcultural discourses. This spells the definitive end of “the public” — that homogeneous imagined community of modern democratic nation states.

Yet, as subcultural differences become more significant, we also witness another, somewhat contradictory development — the increasing invasion of private spaces by mass media culture, global commodity culture, and communications and information networks. Childhood cultures are made up of interwoven narratives and commodities that cross TV, toys, fast-food packaging, video games, T-shirts, shoes, bed linen, pencil cases, and lunch boxes (Luke, 1995). Parents find these commodity narratives inexorable, and teachers find their cultural and linguistic messages losing power and relevance as they compete with these global narratives. Just how do we negotiate these invasive global texts? In some senses, the invasion of the mass media and consumerism makes a mockery of the diversity of its media and channels. Despite all the subcultural differentiation of niche markets, not much space is offered in the marketplace of childhood that reflects genuine diversity among children and adolescents.

Meanwhile, private lives are being made more public as everything becomes a potential subject of media discussion, resulting in what we refer to as a “conversationalization” of public language. Discourses that were once the domain of the private — the intricacies of the sexual lives of public figures, discussion of repressed memories of child abuse — are now made unashamedly public. In some senses, this is a very positive and important development, insofar as these are often important issues that need a public airing. The widespread conversationalization of public language, however, involves institutionally motivated simulation of conversational language and the personae and relationships of ordinary life. Working lives are being transformed so they operate according to metaphors that were once distinctively private, such as management by “culture,” teams dependent on interpersonal discourses, and paternalistic relationships of mentoring. Much of this can be regarded as cynical, manipulative, invasive, and exploitative, as discourses of private life and community are appropriated to serve commercial and institutional ends. This is a process, in other words, that in part destroys the autonomy of private and community lifeworlds.

The challenge is to make space available so that different *lifeworlds* — spaces for community life where local and specific meanings can be made — can flourish. The new multimedia and hypermedia channels can and sometimes do pro-

vide members of subcultures with the opportunity to find their own voices. These technologies have the potential to enable greater autonomy for different lifeworlds, for example, multilingual television or the creation of virtual communities through access to the Internet.

Yet, the more diverse and vibrant these lifeworlds become and the greater the range of the differences, the less clearly bounded the different lifeworlds appear to be. The word “community” is often used to describe the differences that are now so critical — the Italian-American community, the gay community, the business community, and so on — as if each of these communities had neat boundaries. As lifeworlds become more divergent in the new public spaces of civic pluralism, their boundaries become more evidently complex and overlapping. The increasing divergence of lifeworlds and the growing importance of differences is the blurring of their boundaries. The more autonomous lifeworlds become, the more movement there can be: people entering and leaving, whole lifeworlds going through major transitions, more open and productive negotiation of internal differences, freer external linkage and alliances.

As people are simultaneously members of multiple lifeworlds, so their identities have multiple layers that are in complex relation to each other. No person is a member of a singular community. Rather, they are members of multiple and overlapping communities—communities of work, of interest and affiliation, of ethnicity, of sexual identity, and so on (Kalantzis, 1995).

Language, discourse, and register differences are markers of lifeworld differences. As lifeworlds become more divergent and their boundaries more blurred, the central fact of language becomes the multiplicity of meanings and their continual intersection. Just as there are multiple layers to everyone’s identity, there are multiple discourses of identity and multiple discourses of recognition to be negotiated. We have to be proficient as we negotiate the many lifeworlds each of us inhabits, and the many lifeworlds we encounter in our everyday lives. This creates a new challenge for literacy pedagogy. In sum, this is the world that literacy pedagogy now needs to address:

| | <i>Changing Realities</i> | | <i>Designing Social Futures</i> |
|-----------------------|-----------------------------|---|---------------------------------|
| <i>Working Lives:</i> | Fast Capitalism/PostFordism | > | Productive Diversity |
| <i>Public Lives:</i> | Decline of Public Pluralism | > | Civic Pluralism |
| <i>Private Lives:</i> | Invasion of Private Space | > | Multilayered Lifeworlds |

What Schools Can Do

What Schools Do and What We Can Do in Schools

Schools have always played a critical role in determining students’ life opportunities. Schools regulate access to *orders of discourse* — the relationship of discourses in a particular social space — to *symbolic capital* — symbolic meanings that have currency in access to employment, political power, and cultural recog-

nition. They provide access to a hierarchically ordered world of work; they shape citizenries; they provide a supplement to the discourses and activities of communities and private lifeworlds. As these three major realms of social activity have shifted, so the roles and responsibilities of schools must shift.

Institutionalized schooling traditionally performed the function of disciplining and skilling people for regimented industrial workplaces, assisting in the making of the melting pot of homogenous national citizenries, and smoothing over inherited differences between lifeworlds. This is what Dewey (1916/1966) called the assimilatory function of schooling, the function of making homogeneity out of differences. Now, the function of classrooms and learning is in some senses the reverse. Every classroom will inevitably reconfigure the relationships of local and global difference that are now so critical. To be relevant, learning processes need to recruit, rather than attempt to ignore and erase, the different *subjectivities* — interests, intentions, commitments, and purposes — students bring to learning. Curriculum now needs to mesh with different subjectivities, and with their attendant languages, discourses, and registers, and use these as a resource for learning.

This is the necessary basis for a pedagogy that opens possibilities for greater access. The danger of glib and tokenistic pluralism is that it sees differences to be immutable and leaves them fragmentary. Insofar as differences are now a core, mainstream issue, the core or the mainstream has changed. Insofar as there cannot be a standard, universal, national language and culture, there are new universals in the form of productive diversity, civic pluralism, and multilayered lifeworlds. This is the basis for a transformed pedagogy of access — access to symbolic capital with a real valence in the emergent realities of our time. Such a pedagogy does not involve writing over existing subjectivities with the language of the dominant culture. These old meanings of “access” and “mobility” are the basis for models of pedagogy that depart from the idea that cultures and languages other than those of the mainstream represent a deficit. Yet in the emergent reality, there are still real deficits, such as a lack of access to social power, wealth, and symbols of recognition. The role of pedagogy is to develop an epistemology of pluralism that provides access without people having to erase or leave behind different subjectivities. This has to be the basis of a new norm.

Transforming schools and schooled literacy is both a very broad and a narrowly specific issue, a critical part of a larger social project. Yet there is a limit to what schools alone can achieve. The broad question is, what will count for success in the world of the imminent future, a world that can be imagined and achieved? The narrower question is, how do we transform incrementally the achievable and apt outcomes of schooling? How do we supplement what schools already do? We cannot remake the world through schooling, but we can instantiate a vision through pedagogy that creates in microcosm a transformed set of relationships and possibilities for social futures, a vision that is lived in schools. This might involve activities such as simulating work relations of collaboration, commitment, and creative involvement; using the school as a site for mass media access and learning; reclaiming the public space of school citizenship for diverse

communities and discourses; and creating communities of learners that are diverse and respectful of the autonomy of lifeworlds.

In the remainder of this article, we develop the notion of pedagogy as design. Our purpose is to discuss the proposition that *curriculum is a design for social futures* and to debate the overall shape of that design as we supplement literacy pedagogy in the ways indicated by the notion of multiliteracies. In this sense, this article is not immediately practical: it is more in the nature of a programmatic manifesto. The call for practicality is often misconceived insofar as it displaces the kind of foundational discussions we have here. There is another sense, however, in which discussion at this level is eminently practical, albeit in a very general way. Different conceptions of education and society lead to very specific forms of curriculum and pedagogy, which in turn embody designs for social futures. To achieve this, we need to engage in a critical dialogue with the core concepts of fast capitalism, of emerging pluralistic forms of citizenship, and of different lifeworlds. This is the basis for a new social contract, a new commonwealth.

The “What” of a Pedagogy of Multiliteracies

In relation to the new environment of literacy pedagogy, we need to reopen two fundamental questions: the “what” of literacy pedagogy, or what it is that students need to learn; and the “how” of literacy pedagogy, or the range of appropriate learning relationships.

Designs of Meaning

In addressing the question of the “what” of literacy pedagogy, we propose a metalanguage of multiliteracies based on the concept of “design.” Design has become central to workplace innovations, as well as to school reforms for the contemporary world. Teachers and managers are seen as designers of learning processes and environments, not as bosses dictating what those in their charge should think and do. Further, some have argued that educational research should become a design science, studying how different curricular, pedagogical, and classroom designs motivate and achieve different sorts of learning. Similarly, managers have their own design science, studying how management and business theories can be put into practice and continually adjusted and reflected on in practice. The notion of design connects powerfully to the sort of creative intelligence the best practitioners need in order to be able, continually, to redesign their activities in the very act of practice. It connects as well to the idea that learning and productivity are the results of the designs (the structures) of complex systems of people, environments, technology, beliefs, and texts.

We have also decided to use the term design to describe the forms of meaning because it is free of the negative associations for teachers of terms such as “grammar.” It is a sufficiently rich concept upon which to found a language curriculum and pedagogy. The term also has a felicitous ambiguity: it can identify either the organizational structure (or morphology) of products, or the process of design-

ing. Expressions like “the design of the car,” or “the design of the text,” can have either sense: the way it is — has been — designed, or the process of designing it. We propose to treat any semiotic activity, including using language to produce or consume texts, as a matter of Design involving three elements: Available Designs, Designing, and The Redesigned. Together these three elements emphasize the fact that meaning-making is an active and dynamic process, and not something governed by static rules.

This framework is based upon a particular theory of discourse. It sees semiotic activity as a creative application and combination of conventions (resources — Available Designs) that, in the process of Design, transforms at the same time it reproduces these conventions (Fairclough, 1992a, 1995). That which determines (Available Designs) and the active process of determining (Designing, which creates The Redesigned) are constantly in tension. This theory fits in well with the view of social life and social subjects in fast-changing and culturally diverse societies, which we described earlier.

—Available Designs

Available Designs — the resources for Design — include the “grammars” of various semiotic systems: the grammars of languages, and the grammars of other semiotic systems such as film, photography, or gesture. Available Designs also include “orders of discourse” (Fairclough, 1995). An *order of discourse* is the structured set of conventions associated with semiotic activity (including use of language) in a given social space — a particular society, or a particular institution such as a school or a workplace, or more loosely structured spaces of ordinary life encapsulated in the notion of different lifeworlds. An order of discourse is a socially produced array of discourses, intermeshing and dynamically interacting. It is a particular configuration of Design elements. An order of discourse can be seen as a particular configuration of such elements. It may include a mixture of different semiotic systems — visual and aural semiotic systems in combination with language constitute the order of discourse of TV, for instance. It may involve the grammars of several languages — the orders of discourse of many schools, for example.

Order of discourse is intended to capture the way in which different discourses relate to (speak to) each other. Thus, the discourse of African American gangs in Los Angeles is related to the discourse of L.A. police in historical ways. They and other related discourses shape and are shaped by each other. For another example, consider the historical and institutional relations between the discourse of biology and the discourse of religious fundamentalism. Schools are particularly crucial sites in which a set or order of discourses relate to each other — disciplinary discourses, the discourses of being a teacher (teacher culture), the discourse of being a student of a certain sort, community discourses, ethnic discourses, class discourses, and public sphere discourses involving business and government, for instance. Each discourse involves producing and reproducing and transforming different kinds of people. There are different kinds of African Americans, teachers, children, students, police, and biologists. One and the same person can be different kinds of people at different times and places.

Different kinds of people connect through the intermeshed discourses that constitute orders of discourse.

Within orders of discourse there are particular Design conventions — Available Designs — that take the form of discourses, styles, genres, dialects, and voices, to name a few key variables. A *discourse* is a configuration of knowledge and its habitual forms of expression, which represents a particular set of interests. Over time, for instance, institutions produce discourses — that is, their configurations of knowledge. *Style* is the configuration of all the semiotic features in a text in which, for example, language may relate to layout and visual images. *Genres* are forms of text or textual organization that arise out of particular social configurations or the particular relationships of the participants in an interaction. They reflect the purposes of the participants in a specific interaction. In an interview, for example, the interviewer wants something, the interviewee wants something else, and the genre of interview reflects this. *Dialects* may be region or age related. *Voice* is more individual and personal, including, of course, many discursive and generic factors.

The overarching concept of orders of discourse is needed to emphasize that, in designing texts and interactions, people always draw on systems of sociolinguistic practice as well as grammatical systems. These may not be as clearly or rigidly structured as the word “system” suggests, but there are nevertheless always some conventional points of orientation when we act semiotically. Available Designs also include another element: the linguistic and discursive experience of those involved in Designing, in which one moment of Designing is continuous with and a continuation of particular histories. We can refer to this as the intertextual context (Fairclough, 1989), which links the text being designed to one or more series (“chains”) of past texts.

–Designing

The process of shaping emergent meaning involves re-presentation and recontextualization. This is never simply a repetition of Available Designs. Every moment of meaning involves the transformation of the available resources of meaning. Reading, seeing, and listening are all instances of Designing.

According to Halliday (1978), a deep organizing principle in the grammars of human languages is the distinction among macrofunctions of language, which are the different functions of Available Designs: ideational, interpersonal, and textual functions. These functions produce distinctive expressions of meaning. The ideational function handles the “knowledge,” and the interpersonal function handles the “social relations.” As for orders of discourse, the generative interrelation of discourses in a social context, their constituent genres can be partly characterized in terms of the particular social relations and subject positions they articulate, whereas discourses are particular knowledges (constructions of the world) articulated with particular subject positions.

Any semiotic activity — any Designing — simultaneously works on and with these facets of Available Designs. Designing will more or less normatively reproduce, or more or less radically transform, given knowledges, social relations, and identities, depending upon the social conditions under which Designing occurs.

But it will never simply reproduce Available Designs. Designing transforms knowledge in producing new constructions and representations of reality. Through their co-engagement in Designing, people transform their relations with each other, and so transform themselves. These are not independent processes. Configurations of subjects, social relations, and knowledges are worked upon and transformed (becoming The Redesigned) in the process of Designing. Existing and new configurations are always provisional, though they may achieve a high degree of permanence. Transformation is always a new use of old materials, a re-articulation and recombination of the given resources of Available Designs.

The notion of Design recognizes the iterative nature of meaning-making, drawing on Available Designs to create patterns of meaning that are more or less predictable in their contexts. This is why The Redesigned has a ring of familiarity to it. Yet there is something ineluctably unique to every utterance. Most written paragraphs are unique, never constructed in exactly that way ever before and — bar copying or statistical improbability — never to be constructed that way again. Similarly, there is something irreducibly unique about every person's voice. Designing always involves the transformation of Available Designs; it always involves making new use of old materials.

It is also important to stress that listening as well as speaking, and reading as well as writing, are productive activities, forms of Designing. Listeners and readers encounter texts as Available Designs. They also draw upon their experience of other Available Designs as a resource for making new meanings from the texts they encounter. Their listening and reading is itself a production (a Designing) of texts (though texts-for-themselves, not texts-for-others) based on their own interests and life experiences. And their listening and reading in turn transforms the resources they have received in the form of Available Designs into The Redesigned.

—The Redesigned

The outcome of Designing is a new meaning, something through which meaning-makers remake themselves. It is never a reinstantiation of one Available Design or even a simple recombination of Available Designs. The Redesigned may be variously creative or reproductive in relation to the resources for meaning-making available in Available Designs. But it is neither a simple reproduction (as the myth of standards and transmission pedagogy would have us believe), nor is it simply creative (as the myths of individual originality and personal voice would have us believe). As the play of cultural resources and uniquely positioned subjectivity, The Redesigned is founded on historically and culturally received patterns of meaning. At the same time it is the unique product of human agency: a transformed meaning. And, in its turn, The Redesigned becomes a new Available Design, a new meaning-making resource.

Through these processes of Design, moreover, meaning-makers remake themselves. They reconstruct and renegotiate their identities. Not only has The Redesigned been actively made, but it is also evidence of the ways in which the active intervention in the world that is Designing has transformed the designer.

Designs of Meaning

| | |
|---------------------------|--|
| <i>Available Designs:</i> | Resources for meaning; Available Designs of meaning |
| <i>Designing:</i> | The work performed on/with Available Designs in the semiotic process |
| <i>The Redesigned:</i> | The resources that are reproduced and transformed through Designing |

Dimensions of Meaning

Teachers and students need a language to describe the forms of meaning that are represented in Available Designs and The Redesigned. In other words, they need a *metalanguage* — a language for talking about language, images, texts, and meaning-making interactions.

One objective of the International Multiliteracies Project, as initiated and planned during the New London meeting and as it is now entering a collaborative research and experimental curriculum phase, is to develop an educationally accessible functional grammar; that is, a metalanguage that describes meaning in various realms. These include the textual and the visual, as well as the multi-modal relations between the different meaning-making processes that are now so critical in media texts and the texts of electronic multimedia.

Any metalanguage to be used in a school curriculum has to match up to some taxing criteria. It must be capable of supporting sophisticated critical analysis of language and other semiotic systems, yet at the same time not make unrealistic demands on teacher and learner knowledge, and not immediately conjure up teachers' accumulated and often justified antipathies towards formalism. The last point is crucial, because teachers must be motivated to work on and work with the metalanguage.

A metalanguage also needs to be quite flexible and open ended. It should be seen as a tool kit for working on semiotic activities, not a formalism to be applied to them. We should be comfortable with fuzzy-edged, overlapping concepts. Teachers and learners should be able to pick and choose from the tools offered. They should also feel free to fashion their own tools. Flexibility is critical because the relationship between descriptive and analytical categories and actual events is, by its nature, shifting, provisional, unsure, and relative to the contexts and purposes of analysis.

Furthermore, the primary purpose of the metalanguage should be to identify and explain differences between texts, and relate these to the contexts of culture and situation in which they seem to work. The metalanguage is not to impose rules, to set standards of correctness, or to privilege certain discourses in order to "empower" students.

The metalanguage we are suggesting for analyzing the Design of meaning with respect to orders of discourse includes the key terms "genres" and "discourses," and a number of related concepts such as voices, styles, and probably others (Fairclough, 1992a; Kress, 1990; van Leeuwen, 1993). More informally, we might ask of any Designing, What's the game? and What's the angle?

“The game” points us in the direction of purpose, and the notion of genre. Sometimes the game can be specified in terms of a clearly defined and socially labeled genre, like church liturgy; sometimes there is no clear generic category. Semiotic activity and the texts it generates regularly mixes genres (for example, doctor-patient consultations, which are partly like medical examinations and partly like counseling sessions, or even informal conversations).

In trying to characterize game and genre, we should start from the social context, the institutional location, the social relations of texts, and the social practices within which they are embedded. Genre is an intertextual aspect of a text. It shows how the text links to other texts in the intertextual context, and how it might be similar in some respects to other texts used in comparable social contexts, and its connections with text types in the order(s) of discourse. But genre is just one of a number of intertextual aspects of a text, and it needs to be used in conjunction with others, especially discourses.

A *discourse* is a construction of some aspect of reality from a particular point of view, a particular angle, in terms of particular interests. As an abstract noun, discourse draws attention to use of language as a facet of social practice that is shaped by — and shapes — the orders of discourse of the culture, as well as language systems (grammars). As a count noun (discourses in the plural rather than discourse in general), it draws attention to the diversity of constructions (representations) of various domains of life and experience associated with different voices, positions, and interests (subjectivities). Here again, some discourses are clearly demarcated and have conventional names in the culture (for example, feminist, party-political, or religious discourses), whereas others are much more difficult to pinpoint. Intertextual characterizations of texts in terms of genres and discourses are best regarded as provisional approximations, because they are cultural interpretations of texts that depend on the analyst’s fuzzy but operationally adequate feel for the culture, as well as for specialist knowledges.

Design Elements

One of the key ideas informing the notion of multiliteracies is the increasing complexity and inter-relationship of different modes of meaning. We have identified six major areas in which functional grammars — the metalanguages that describe and explain patterns of meaning — are required: Linguistic Design, Visual Design, Audio Design, Gestural Design, Spatial Design, and Multimodal Design. Multimodal Design is of a different order to the other five modes of meaning; it represents the patterns of interconnection among the other modes. We are using the word “grammar” here in a positive sense, as a specialized language that describes patterns of representation. In each case, our objective is to come up with no more than approximately ten major Design elements.

–Linguistic Design

The metalanguage we propose to use to describe Linguistic Design is intended to focus our attention on the representational resources. This metalanguage is not a category of mechanical skills, as is commonly the case in grammars de-

signed for educational use. Nor is it the basis for detached critique or reflection. Rather, the Design notion emphasizes the productive and innovative potential of language as a meaning-making system. This is an action, a generative description of language as a means of representation. As we have argued earlier in this article, such an orientation to society and text will be an essential requirement of the economies and societies of the present and the future. It will also be essential for the production of particular kinds of democratic and participatory subjectivity. The elements of Linguistic Design that we foreground help describe the representational resources that are available, the various meanings these resources will have if drawn upon in a particular context, and the innovative potential for reshaping these resources in relation to social intentions or aims.

Consider this example: "Lung cancer death rates are clearly associated with increased smoking," and "Smoking causes cancer." The first sentence can mean what the second means, though it can mean many other things as well. The first sentence is more explicit in some ways than the second (e.g., reference to lung cancer), and less explicit in other ways (e.g., "associated with" versus "cause"). Grammar has been recruited to design two different instruments. Each sentence is usable in different discourses. For example, the first is a form typical of much writing in the social sciences and even the hard sciences. The second is a form typical of public health discussion. Grammar needs to be seen as a range of choices one makes in designing communication for specific ends, including greater recruitment of nonverbal features. These choices, however, need to be seen as not just a matter of individual style or intention, but as inherently connected to different discourses with their wider interests and relationships of power.

Our suggested metalanguage for analyzing the designs of language is built around a highly selective checklist of features of texts, which experience has shown to be particularly worth attending to (see also Fowler, Hodge, Kress, & Trent, 1979; Fairclough, 1992a). The following table lists some key terms that might be included as a metalanguage of Linguistic Design. Other potentially significant textual features are likely to be alluded to from time to time, but we think that a facility in using the features on the checklist itself constitutes a substantive, if limited, basis for critical language awareness.

We will examine two of these now in order to illustrate our notion of Linguistic Design: nominalization and transitivity. *Nominalization* involves using a phrase to compact a great deal of information, somewhat like the way a trash compactor compacts trash. After compacting, you cannot always tell what has been compacted. Consider the expression, "Lung cancer death rates." Is this "rates" at which people die of lung cancer, or rates at which lungs die from cancer? You can't know this unless you are privy to what the discussion has been. Nominalizations are used to compact information — whole conversations — that we assume people (or at least "experts") are up on. They are signals for those "in the game" and thus are also ways to keep people out.

Transitivity indicates how much agency and effect one designs into a sentence. "John struck Mary" has more effect (on Mary) than "John struck out at Mary,"

and “John struck Mary” has more agency than “Mary was struck.” Since we humans connect agency and effect with responsibility and blame in many domains (discourses), these are not just matters of grammar. They are ways of designing language to engage in actions like blaming, avoiding blame, or backgrounding certain things against others.

Some Elements of Linguistic Design

| | |
|-------------------------------------|--|
| <i>Delivery:</i> | Features of intonation, stress, rhythm, accent, etc. |
| <i>Vocabulary and Metaphor:</i> | Includes colocation, lexicalization, and word meaning. |
| <i>Modality:</i> | The nature of the producer’s commitment to the message in a clause. |
| <i>Transitivity:</i> | The types of process and participants in the clause. Vocabulary and metaphor, word choice, positioning, and meaning. |
| <i>Nominalization of Processes:</i> | Turning actions, qualities, assessments, or logical connection into nouns or states of being (e.g., “assess” becomes “assessment”; “can” becomes ability). |
| <i>Information Structures:</i> | How information is presented in clauses and sentences. |
| <i>Local Coherence Relations:</i> | Cohesion between clauses, and logical relations between clauses (e.g., embedding, subordination). |
| <i>Global Coherence Relations:</i> | The overall organizational properties of texts (e.g., genres). |

–Designs for Other Modes of Meaning

Increasingly important are modes of meaning other than Linguistic, including Visual Meanings (images, page layouts, screen formats); Audio Meanings (music, sound effects); Gestural Meanings (body language, sensuality); Spatial Meanings (the meanings of environmental spaces, architectural spaces); and Multimodal Meanings. Of the modes of meaning, the Multimodal is the most significant, as it relates all the other modes in quite remarkably dynamic relationships. For instance, mass media images relate the linguistic to the visual and to the gestural in intricately designed ways. Reading the mass media for its linguistic meanings alone is not enough. Magazines employ vastly different visual grammars according to their social and cultural content. A script of a sitcom such as *Roseanne* would have none of the qualities of the program if you didn’t have a “feel” for its unique gestural, audio, and visual meanings. A script without this knowledge would only allow a very limited reading. Similarly, a visit to a shopping mall

involves a lot of written text. However, either a pleasurable or a critical engagement with the mall will involve a multimodal reading that not only includes the design of language, but a spatial reading of the architecture of the mall and the placement and meaning of the written signs, logos, and lighting. McDonalds has hard seats — to keep you moving. Casinos do not have windows or clocks — to remove tangible indicators of time passing. These are profoundly important spatial and architectonic meanings, crucial for reading Available Designs and for Designing social futures.

In a profound sense, all meaning-making is multimodal. All written text is also visually designed. Desktop publishing puts a new premium on visual design and spreads responsibility for the visual much more broadly than was the case when writing and page layout were separate trades. So, a school project can and should properly be evaluated on the basis of visual as well as linguistic design, and their multimodal relationships. To give another example, spoken language is a matter of audio design as much as it is a matter of linguistic design understood as grammatical relationships.

Texts are designed using the range of historically available choices among different modes of meaning. This entails a concern with absences from texts, as well as presences in texts: “Why not that?” as well as “Why this?” (Fairclough, 1992b). The concept of Design emphasizes the relationships between received modes of meaning (Available Designs), the transformation of these modes of meaning in their hybrid and intertextual use (Designing), and their subsequent to-be-received status (The Redesign). The metalanguage of meaning-making applies to all aspects of this process: how people are positioned by the elements of available modes of meaning (Available Designs), yet how the authors of meanings in some important senses bear the responsibility of being consciously in control of their transformation of meanings (Designing), and how the effects of meaning, the sedimentation of meaning, become a part of the social process (The Redesign).

Of course, the extent of transformation from Available Designs to The Redesign as a result of Designing can greatly vary. Sometimes the designers of meaning will reproduce the Available Designs in the form of The Redesign more closely than at other times — a form letter as opposed to a personal letter, or a classified as opposed to a display advertisement, for instance. Some Designing is more premeditated — planned, deliberate, systematized — than other instances, for example, a conversation as opposed to a poem. At times, Designing is based on clearly articulated, perhaps specialist, metalanguages describing Design elements (the language of the professional editor or the architect), while other Designing may be no more or less transformative, even though the designers may not have an articulated metalanguage to describe the elements of their meaning-making processes (the person who “fixes up” what they have just written or the home renovator). Notwithstanding these different relationships of structure and agency, all meaning-making always involves both.

Two key concepts help us describe multimodal meanings and the relationships of different designs of meaning: hybridity and intertextuality (Fairclough,

1992a, 1992b). The term *hybridity* highlights the mechanisms of creativity and of culture-as-process particularly salient in contemporary society. People create and innovate by hybridizing — that is, articulating in new ways — established practices and conventions within and between different modes of meaning. This includes the hybridization of established ways modes of meaning (of discourses and genres), and multifarious combinations of modes of meaning cutting across boundaries of convention and creating new conventions. Popular music is a perfect example of the process of hybridity. Different cultural forms and traditions are constantly being recombined and restructured — where the musical forms of Africa meet audio electronics and the commercial music industry. And new relations are constantly being created between linguistic meanings and audio meanings (pop versus rap) and between linguistic/audio and visual meanings (live performance versus video clips).

Intertextuality draws attention to the potentially complex ways in which meanings (such as linguistic meanings) are constituted through relationships to other texts (real or imaginary), text types (discourse or genres), narratives, and other modes of meaning (such as visual design, architectonic or geographical positioning). Any text can be viewed historically in terms of the intertextual chains (historical series of texts) it draws upon, and in terms of the transformations it works upon them. For instance, movies are full of cross references, either made explicitly by the movie maker or read into the movie by the viewer-as-Designer: a role, a scene, an ambiance. The viewer takes a good deal of their sense of the meaning of the movie through these kinds of intertextual chains.

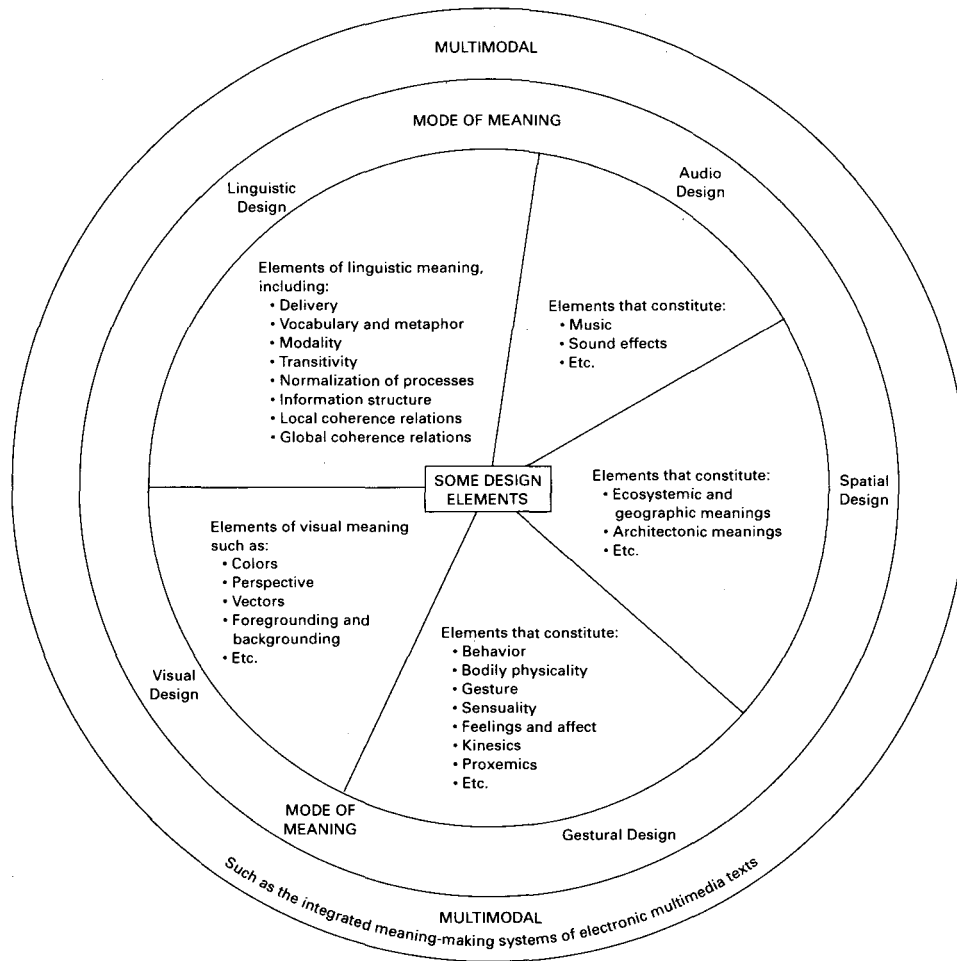
The “How” of a Pedagogy of Multiliteracies

A Theory of Pedagogy

Any successful theory of pedagogy must be based on views about how the human mind works in society and classrooms, as well as about the nature of teaching and learning. While we certainly believe that no current theory in psychology, education, or the social sciences has “the answers,” and that theories stemming from these domains must always be integrated with the “practical knowledge” of master practitioners, we also believe that those proposing curricular and pedagogical reforms must clearly state their views of mind, society, and learning in virtue of which they believe such reforms would be efficacious.

Our view of mind, society, and learning is based on the assumption that the human mind is embodied, situated, and social. That is, human knowledge is initially developed not as “general and abstract,” but as embedded in social, cultural, and material contexts. Further, human knowledge is initially developed as part and parcel of collaborative interactions with others of diverse skills, backgrounds, and perspectives joined together in a particular epistemic community, that is, a community of learners engaged in common practices centered around a specific (historically and socially constituted) domain of knowledge. We believe that “abstractions,” “generalities,” and “overt theories” come out of this initial ground and must always be returned to it or to a recontextualized version of it.

FIGURE 1
Multiliteracies: Metalanguages to Describe and Interpret the Design Elements of Different Modes of Meaning



This view of mind, society, and learning, which we hope to explicate and develop over the next few years as part of our joint international project, leads us to argue that pedagogy is a complex integration of four factors: Situated Practice based on the world of learners' Designed and Designing experiences; Overt Instruction through which students shape for themselves an explicit metalanguage of Design; Critical Framing, which relates meanings to their social contexts and purposes; and Transformed Practice in which students transfer and re-create Designs of meaning from one context to another. We will briefly develop these themes below.

Recent work in cognitive science, social cognition, and sociocultural approaches to language and literacy (Barsalou, 1992; Bereiter & Scardamalia, 1993; Cazden, 1988; Clark, 1993; Gardner, 1991; Gee, 1992; Heath, 1983; Holland, Holyoak, Nisbett, & Thagard, 1986; Lave & Wenger, 1991; Light & Butterworth, 1993; Perkins, 1992; Rogoff, 1990; Scollon & Scollon, 1981; Street, 1984; Wertsch, 1985) argues that if one of our pedagogical goals is a degree of mastery in practice, then immersion in a community of learners engaged in authentic versions of such practice is necessary. We call this *Situated Practice*. Recent research (Barsalou, 1992; Eiser, 1994; Gee, 1992; Harre & Gillett, 1994; Margolis, 1993; Nolan, 1994) argues that the human mind is not, like a digital computer, a processor of general rules and decontextualized abstractions. Rather, human knowledge, when it is applicable to practice, is primarily situated in sociocultural settings and heavily contextualized in specific knowledge domains and practices. Such knowledge is inextricably tied to the ability to recognize and act on patterns of data and experience, a process that is acquired only through experience, since the requisite patterns are often heavily tied and adjusted to context, and are, very often, subtle and complex enough that no one can fully and usefully describe or explicate them. Humans are, at this level, contextual and sociocultural “pattern recognizers” and actors. Such pattern recognition underlies the ability to act flexibly and adaptably in context — that is, mastery in practice.

However, there are limitations to *Situated Practice* as the sole basis for pedagogy. First, a concern for the situatedness of learning is both the strength and the weakness of progressivist pedagogies (Kalantzis & Cope, 1993a). While such situated learning can lead to mastery in practice, learners immersed in rich and complex practices can vary quite significantly from each other (and from curricular goals), and some can spend a good deal of time pursuing the “wrong” leads, so to speak. Second, much of the “immersion” that we experience as children, such as in acquiring our “native” language, is surely supported by our human biology and the normal course of human maturation and development. Such support is not available in later school immersion in areas such as literacy and academic domains, since these are far too late on the human scene to have garnered any substantive biological or evolutionary support. Thus, whatever help biology and maturation give children in their early primary socialization must be made up for — given more overtly — when we use “immersion” as a method in school. Third, *Situated Practice* does not necessarily lead to conscious control and awareness of what one knows and does, which is a core goal of much school-based learning. Fourth, such *Situated Practice* does not necessarily create learners or communities who can critique what they are learning in terms of historical, cultural, political, ideological, or value-centered relations. And, fifth, there is the question of putting knowledge into action. People may be able to articulate their knowledge in words. They could be consciously aware of relationships, and even able to engage in “critique.” Yet they might still be incapable of reflexively enacting their knowledge in practice.

Thus, *Situated Practice*, where teachers guide a community of learners as “masters” of practice, must be supplemented by several other components (see

Cazden, 1992). Beyond mastery in practice, an efficacious pedagogy must seek critical understanding or cultural understanding in two different senses. Critical in the phrase “critical understanding” means conscious awareness and control over the intra-systematic relations of a system. Immersion, notoriously, does not lead to this. For instance, children who have acquired a first language through immersion in the practices of their communities do not thereby, in virtue of that fact, become good linguists. Vygotsky (1978, 1987), who certainly supported collaboration in practice as a foundation of learning, argued also that certain forms of Overt Instruction were needed to supplement immersion (acquisition) if we wanted learners to gain conscious awareness and control of what they acquired.

There is another sense of “critical,” as in the ability to critique a system and its relations to other systems on the basis of the workings of power, politics, ideology, and values (Fairclough, 1992b). In this sense, people become aware of, and are able to articulate, the cultural locatedness of practices. Unfortunately, neither immersion in Situated Practices within communities of learners, nor Overt Instruction of the sort Vygotsky (1987) discussed, necessarily gives rise to this sort of critical understanding or cultural understanding. In fact, both immersion and many sorts of Overt Instruction are notorious as socializing agents that can render learners quite uncritical and unconscious of the cultural locatedness of meanings and practices.

The four components of pedagogy we propose here do not constitute a linear hierarchy, nor do they represent stages. Rather, they are components that are related in complex ways. Elements of each may occur simultaneously, while at different times one or the other will predominate, and all of them are repeatedly revisited at different levels.

Situated Practice

This is the part of pedagogy that is constituted by immersion in meaningful practices within a community of learners who are capable of playing multiple and different roles based on their backgrounds and experiences. The community must include experts, people who have mastered certain practices. Minimally, it must include expert novices, people who are experts at learning new domains in some depth. Such experts can guide learners, serving as mentors and designers of their learning processes. This aspect of the curriculum needs to recruit learners’ previous and current experiences, as well as their extra-school communities and discourses, as an integral part of the learning experience.

There is ample evidence that people do not learn anything well unless they are both motivated to learn and believe that they will be able to use and function with what they are learning in some way that is in their interest. Thus, the Situated Practice that constitutes the immersion aspect of pedagogy must crucially consider the affective and sociocultural needs and identities of all learners. It must also constitute an arena in which all learners are secure in taking risks and trusting the guidance of others — peers and teachers.

Within this aspect of pedagogy, evaluation, we believe, should never be used to judge, but should be used developmentally, to guide learners to the experiences and the assistance they need to develop further as members of the community capable of drawing on, and ultimately contributing to, the full range of its resources.

Overt Instruction

Overt Instruction does not imply direct transmission, drills, and rote memorization, though unfortunately it often has these connotations. Rather, it includes all those active interventions on the part of the teacher and other experts that scaffold learning activities, that focus the learner on the important features of their experiences and activities within the community of learners, and that allow the learner to gain explicit information at times when it can most usefully organize and guide practice, building on and recruiting what the learner already knows and has accomplished. It includes centrally the sorts of collaborative efforts between teacher and student wherein the student is both allowed to accomplish a task more complex than they can accomplish on their own, and where they come to conscious awareness of the teacher's representation and interpretation of that task and its relations to other aspects of what is being learned. The goal here is conscious awareness and control over what is being learned — over the intra-systematic relations of the domain being practiced.

One defining aspect of Overt Instruction is the use of metalanguages, languages of reflective generalization that describe the form, content, and function of the discourses of practice. In the case of the multiliteracies framework proposed here, this would mean that students develop a metalanguage that describes both the “what” of literacy pedagogy (Design processes and Design elements) and the scaffolds that constitute the “how” of learning (Situated Practice, Overt Instruction, Critical Framing, Transformed Practice).

Much assessment in traditional curriculum required replication of the generalities of Overt Instruction. As in the case of Situated Practice, evaluation in Overt Instruction should be developmental, a guide to further thought and action. It should also be related to the other aspects of the learning process — the connections, for example, between evolving metalanguages as they are negotiated and developed through Overt Instruction, on the one hand, and Situated Practice, Critical Framing, and Transformed Practice, on the other hand.

Critical Framing

The goal of Critical Framing is to help learners frame their growing mastery in practice (from Situated Practice) and conscious control and understanding (from Overt Instruction) in relation to the historical, social, cultural, political, ideological, and value-centered relations of particular systems of knowledge and social practice. Here, crucially, the teacher must help learners to denaturalize and make strange again what they have learned and mastered.

For example, the claim “DNA replicates itself” framed within biology is obvious and “true.” Framed within another discourse in the following way, it becomes

less natural and less “true”: Put some DNA in some water in a glass on a table. It certainly will not replicate itself, it will just sit there. Organisms replicate themselves using DNA as a code, but that code is put into effect by an array of machinery involving proteins. In many of our academic and Western discourses, we have privileged information and mind over materials, practice, and work. The original claim foregrounds information and code and leaves out, or backgrounds, machinery and work. This foregrounding and backgrounding becomes apparent only when we reframe, when we take the sentence out of its “home” discourse and place it in a wider context. Here, the wider context is actual processes and material practices, not just general statements in a disciplinary theory (the DNA example is from Lewontin, 1991).

Through critical framing, learners can gain the necessary personal and theoretical distance from what they have learned, constructively critique it, account for its cultural location, creatively extend and apply it, and eventually innovate on their own, within old communities and in new ones. This is the basis for Transformed Practice. It also represents one sort of transfer of learning, and one area where evaluation can begin to assess learners and, primarily, the learning processes in which they have been operating.

Transformed Practice

It is not enough to be able to articulate one’s understanding of intra-systematic relations or to critique extra-systematic relations. We need always to return to where we began, to Situated Practice, but now a re-practice, where theory becomes reflective practice. With their students, teachers need to develop ways in which the students can demonstrate how they can design and carry out, in a reflective manner, new practices embedded in their own goals and values. They should be able to show that they can implement understandings acquired through Overt Instruction and Critical Framing in practices that help them simultaneously to apply and revise what they have learned. In Transformed Practice we are offered a place for situated, contextualized assessment of learners and the learning processes devised for them. Such learning processes, such a pedagogy, needs to be continually reformulated on the basis of these assessments.

In Transformed Practice, in one activity we try to re-create a discourse by engaging in it for our own real purposes. Thus, imagine a student having to act and think like a biologist, and at the same time as a biologist with a vested interest in resisting the depiction of female things — from eggs to organisms — as “passive.” The student now has to both juxtapose and integrate (not without tension) two different discourses, or social identities, or “interests” that have historically been at odds. Using another example, how can one be a “real” lawyer and, at the same time, have one’s performance influenced by being an African American. In his arguments before the U.S. Supreme Court for desegregating schools, Thurgood Marshall did this in a classic way. And, in mixing the discourse of politics with the discourse of African American religion, Jesse Jackson has transformed the former. The key here is juxtaposition, integration, and living with tension.

| | |
|------------------------------|--|
| <i>Situated Practice:</i> | Immersion in experience and the utilization of available discourses, including those from the students' lifeworlds and simulations of the relationships to be found in workplaces and public spaces. |
| <i>Overt Instruction:</i> | Systematic, analytic, and conscious understanding. In the case of multiliteracies, this requires the introduction of explicit metalanguages, which describe and interpret the Design elements of different modes of meaning. |
| <i>Critical Framing:</i> | Interpreting the social and cultural context of particular Designs of meaning. This involves the students' standing back from what they are studying and viewing it critically in relation to its context. |
| <i>Transformed Practice:</i> | Transfer in meaning-making practice, which puts the transformed meaning to work in other contexts or cultural sites. |

The International Multiliteracies Project

Let us tie the "what" and the "how" of literacy pedagogy back to the large agenda with which we began this article: focusing on Situated Practices in the learning process involves the recognition that differences are critical in workplaces, civic spaces, and multilayered lifeworlds. Classroom teaching and curriculum have to engage with students' own experiences and discourses, which are increasingly defined by cultural and subcultural diversity and the different language backgrounds and practices that come with this diversity. Overt Instruction is not intended to tell — to empower students in relation to the "grammar" of one proper, standard, or powerful language form. It is meant to help students develop a metalanguage that accounts for Design differences. Critical Framing involves linking these Design differences to different cultural purposes. Transformed Practice involves moving from one cultural context to another; for example, redesigning meaning strategies so they can be transferred from one cultural situation to another.

The idea of Design is one that recognizes the different Available Designs of meaning, located as they are in different cultural contexts. The metalanguage of multiliteracies describes the elements of Design, not as rules, but as an heuristic that accounts for the infinite variability of different forms of meaning-making in relation to the cultures, the subcultures, or the layers of an individual's identity that these forms serve. At the same time, Designing restores human agency and cultural dynamism to the process of meaning-making. Every act of meaning both appropriates Available Designs and recreates in the Designing, thus producing new meaning as The Redesigned. In an economy of productive diversity, in civic spaces that value pluralism, and in the flourishing of interrelated, multilayered, complementary yet increasingly divergent lifeworlds, work-

ers, citizens, and community members are ideally creative and responsible makers of meaning. We are, indeed, designers of our social futures.

Of course, the necessary negotiation of differences will be difficult and often painful. The dialogue will encounter chasms of difference in values, grossly unjust inequalities, and difficult but necessary border crossings. The differences are not as neutral, colorful, and benign as a simplistic multiculturalism might want us to believe. Yet as workers, citizens, and community members, we will all need the skills required to negotiate these differences.

This article represents a statement of general principle. It is highly provisional, and something we offer as a basis for public debate. The objective of the International Multiliteracies Project is to test and develop these ideas further, particularly the metalanguage of Design and the pedagogy of Situated Practice, Overt Instruction, Critical Framing, and Transformed Practice. We also want to establish relationships with teachers and researchers, developing and testing curriculum and revising the theoretical propositions of the project.

This article is a provisional statement of intent and a theoretical overview of the connections between the changing social environment and the “what” and the “how” of literacy pedagogy. As the project moves into its next phase, the group that met in New London is writing a book that explores the ideas of multiliteracies further, relating the idea to classrooms and our own educational experiences. We are also beginning to conduct classroom-based research, experimenting with multiliteracies as a notion that might supplement and support literacy curriculum. And we are actively engaged in ongoing public dialogue. In September 1996, the group will be opening the argument up to public discussion once again at the Domains of Literacy Conference at London University, and again in 1997 at the Literacy and Education Research Network Conference in Australia. We want to stress that this is an open-ended process — tentative, exploratory, and welcoming of multiple and divergent collaborations. And above all, our aim is to make some sort of difference for real children in real classrooms.

These activities will be informed by a number of key principles of action. First, the project will supplement, not critique, existing curricula and pedagogical approaches to the teaching of English language and literacy. This will include further developing the conceptual framework of the International Multiliteracies Project, and mapping this against existing curriculum practices in order to extend teachers’ pedagogical and curriculum repertoires. Second, the project team will welcome collaborations with researchers, curriculum developers, teachers, and communities. The project framework represents a complex and difficult dialogue; these complexities and difficulties will be articulated along with an open invitation for all to contribute to the development of a pedagogy that does make some difference. And third, it will strive continually towards reformulations of theory that are of direct use in educational practice.

This article is a tentative starting point for that process.

References

- Anderson, B. (1983). *Imagined communities: Reflections on the origin and spread of nationalism*. London: Verso.
- Barsalou, L. W. (1992). *Cognitive psychology: An overview for cognitive scientists*. Hillsdale, NJ: Lawrence Erlbaum.
- Bereiter, C., & Scardamalia, M. (1993). *Surpassing ourselves: An inquiry into the nature and implications of expertise*. Chicago: Open Court.
- Boyett, J. H., & Conn, H. P. (1992). *Workplace 2000: The revolution reshaping American business*. New York: Plume/Penguin.
- Bruer, J. T. (1993). *Schools for thought: A science of learning in the classroom*. Cambridge, MA: MIT Press.
- Cazden, C. (1988). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann.
- Cazden, C. (1992). *Whole language plus: Essays on literacy in the United States and New Zealand*. New York: Teachers College Press.
- Clark, A. (1993). *Associative engines: Connections, concepts, and representational change*. Cambridge, Eng.: Cambridge University Press.
- Cope, B., & Kalantzis, M. (1995). *Productive diversity: Organizational life in the age of civic pluralism and total globalisation*. Sydney: Harper Collins.
- Cross, K. F., Feather, J. J., & Lynch, R. L. (1994). *Corporate renaissance: The art of reengineering*. Oxford, Eng.: Basil Blackwell.
- Davidow, W. H., & Malone, M. S. (1992). *The virtual corporation: Structuring and revitalizing the corporation for the 21st century*. New York: Harper Business.
- Deal, T. E., & Jenkins, W. A. (1994). *Managing the hidden organization: Strategies for empowering your behind-the-scenes employees*. New York: Warner.
- Dewey, J. (1966). *Democracy and education*. New York: Free Press. (Original work published 1916)
- Dobyns, L., & Crawford-Mason, C. (1991). *Quality or else: The revolution in world business*. Boston: Houghton Mifflin.
- Drucker, P. F. (1993). *Post-capitalist society*. New York: Harper.
- Eiser, J. R. (1994). *Attitudes, chaos, and the connectionist mind*. Oxford, Eng.: Basil Blackwell.
- Faigley, L. (1992). *Fragments of rationality: Postmodernity and the subject of composition*. Pittsburgh: University of Pittsburgh Press.
- Fairclough, N. (1989). *Language and power*. London: Longmans.
- Fairclough, N. (1992a). *Discourse and social power*. London: Polity Press.
- Fairclough, N. (1992b). Discourse and text: Linguistic and intertextual analysis within discourse analysis. *Discourse and Society*, 3, 193–217.
- Fairclough, N. (1995). *Critical discourse analysis*. London: Longmans.
- Fowler, R., Hodge, R., Kress, G., & Trent, T. (1979). *Language and control*. London: Routledge.
- Freire, P. (1968). *Pedagogy of the oppressed*. New York: Seabury Press.
- Freire, P. (1973). *Education for critical consciousness*. New York: Seabury Press.
- Freire, P., & Macedo, D. (1987). *Literacy: Reading the word and the world*. South Hadley, MA: Bergin & Garvey.
- Fukuyama, F. (1992). *The end of history and the last man*. London: Penguin.
- Gardner, H. (1991). *The unschooled mind: How children think and how schools should teach*. New York: Basic Books.
- Gee, J. P. (1992). *The social mind: Language, ideology, and social practice*. New York: Bergin & Garvey.
- Gee, J. P. (1993). Postmodernism, discourses, and linguistics. In C. Lankshear & P. McLaren (Eds.), *Critical literacy: Radical and postmodernist perspectives* (pp. 271–295). Albany: State University of New York Press.

- Gee, J. P. (1994a). *Quality, science, and the lifeworld: The alignment of business and education* (Focus: Occasional Papers in Adult Basic Education, No. 4). Leichhardt, Australia: Adult Literacy and Basic Skills Action Coalition.
- Gee, J. P. (1994b). New alignments and old literacies: From fast capitalism to the canon. In B. Shortland-Jones, B. Bosich, & J. Rivalland (Eds.), *Conference papers: 1994 Australian Reading Association Twentieth National Conference* (pp. 1–35). Carlton South: Australian Reading Association.
- Gellner, E. (1983). *Nations and nationalism*. London: Basil Blackwell.
- Giroux, H. (1988). *Schooling and the struggle for pedagogies: Critical and feminist discourses as regimes of truth*. New York: Routledge.
- Halliday, M. A. K. (1978). *Language as social semiotic*. London: Edward Arnold.
- Hammer, M., & Champy, J. (1993). *Reengineering the corporation: A manifesto for business revolution*. New York: Harper Business.
- Harre, R., & Gillett, G. (1994). *The discursive mind*. Thousand Oaks, CA: Sage.
- Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. Cambridge, Eng.: Cambridge University Press.
- Holland, J. H., Holyoak, K. J., Nisbett, R. E., Thagard, P. R. (1986). In J. H. Holland, K. J. Holyoak, R. E. Nisbett, & P. R. Thagard (Eds.), *Induction: Processes of inference, learning, and discovery*. Cambridge, MA: MIT Press.
- Ishikawa, K. (1985). *What is total quality control? The Japanese way*. Englewood Cliffs, NJ: Prentice Hall.
- Kalantzis, M. (1995). The new citizen and the new state. In W. Hudson (Ed.), *Rethinking Australian citizenship*. Sydney: University of New South Wales Press.
- Kalantzis, M., & Cope, B. (1993a). Histories of pedagogy, cultures of schooling. In B. Cope & M. Kalantzis (Eds.), *The powers of literacy* (pp. 38–62). London: Falmer Press.
- Kalantzis, M., & Cope, B. (1993b). Republicanism and cultural diversity. In W. Hudson & D. Carter (Eds.), *The Republicanism debate* (pp. 118–144). Sydney: University of New South Wales Press.
- Kress, G. (1990). *Linguistic process and sociocultural change*. Oxford, Eng.: Oxford University Press.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, Eng.: Cambridge University Press.
- Lewontin, R. C. (1991). *Biology as ideology: The doctrine of DNA*. New York: Harper.
- Light, P., & Butterworth, G. (Eds.). (1993). *Context and cognition: Ways of learning and knowing*. Hillsdale, NJ: Lawrence Erlbaum.
- Lipnack, J., & Stamps, J. (1993). *The team net factor: Bringing the power of boundary crossing into the heart of your business*. Essex Junction, VT: Oliver Wright.
- Luke, C. (1995). Media and cultural studies. In P. Freebody, S. Muspratt, & A. Luke (Eds.), *Constructing critical literacies*. Crosskill, NJ: Hampton Press.
- Margolis, H. (1993). *Paradigms and barriers: How habits of mind govern scientific beliefs*. Chicago: University of Chicago Press.
- Nolan, R. (1994). *Cognitive practices: Human language and human knowledge*. Oxford, Eng.: Blackwell.
- Piore, M., & Sable, C. (1984). *The second industrial divide*. New York: Basic Books.
- Perkins, D. (1992). *Smart schools: From training memories to educating minds*. New York: Free Press.
- Peters, T. (1992). *Liberation management: Necessary disorganization for the nanosecond nineties*. New York: Vintage Books.
- Rogoff, B. (1990). *Apprenticeship in thinking*. New York: Oxford University Press.
- Sashkin, M., & Kiser, K. J. (1993). *Putting total quality management to work*. San Francisco: Berrett-Koehler.
- Scollon, R., & Scollon, S. B. K. (1981). *Narrative, literacy, and face in interethnic communication*. Norwood, NJ: Ablex.

- Senge, P. M. (1991). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.
- Sproull, L., & Kiesler, S. (1991). *Connections: New ways of working in the networked organization*. Cambridge, MA: MIT Press.
- Street, B. V. (1984). *Literacy in theory and practice*. Cambridge, Eng.: Cambridge University Press.
- van Leeuwen, T. (1993). Genre and field in critical discourse analysis. *Discourse and Society*, 4, 193–223.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1987). *The collected works of L. S. Vygotsky: Vol. 1. Problems of general psychology, including the volume thinking and speech* (R. W. Rieber & A. S. Carton, Eds.; Trans. N. Minick). New York: Plenum.
- Walkerdine, V. (1986). *Surveillance, subjectivity and struggle: Lessons from pedagogic and domestic practices*. Minneapolis: University of Minnesota Press.
- Wertsch, J. V. (Ed.). (1985). *Culture, communication, and cognition: Vygotskian perspectives*. Cambridge, Eng.: Cambridge University Press.

This article and the collaborative work upon which it is based were made possible in a significant part by the support of the National Languages and Literacy Institute of Australia and the Spencer Foundation.

The members of the International Multiliteracies Project Team would like to encourage others to join them in this project. The team is also developing a project mailing list and a home page on the World Wide Web in order to link educators with similar or complementary interests. For further information, contact the International Multiliteracies Project, C/-NLLIA Centre for Workplace Communication and Culture, University of Technology, Sydney, Australia, and James Cook University of North Queensland, P.O. Box K481, Haymarket, Sydney 2000, Australia: *International Facsimile*: +61 77 81 4031; *International Telephone*: +61 77 81 5533.