'Multiliteracies':
New Literacies, New Learning

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ABSTRACT

This paper examines the changing landscape of literacy teaching and learning, revisiting the case for a 'pedagogy of Multiliteracies' first put by the New London Group ten years ago. It describes the dramatically changing social and technological contexts of communication and learning, develops a language with which to talk about representation and communication in educational contexts, and addresses the question of what constitutes appropriate literacy pedagogy for our times. It ends with an overview of recent work in the field and provides some examples of attempts to translate the Multiliteracies ideas into educational practice.

The New London Group[1] first came together in the mid nineties to consider the state and future of literacy pedagogy. After a meeting in September 1994 the New London Group published an article-long manifesto (New London Group, 1996) and then a book (Cope and Kalantzis, 2000a) outlining an agenda for what we called a 'pedagogy of multiliteracies'. Experts, colleagues, friends, all with a concern for language and education, we had set aside that initial week in 1994 to talk through what was happening in the world of communications and what was happening, or not happening but perhaps should happen, in the teaching of language and literacy in schools.

During that week, we used what then seemed to be a daringly novel mix of technologies, a portable computer with a data projector and screen. With these we jointly built a schema—a series of headings and notes—which was to be the structure and argument of the 1996 article and the 2000 book. Not much more than a decade late, portable computers are called 'laptops'. The term 'data projector' has also entered our language more recently. Back then, the machine in question, a very expensive glass-screened device that you laid on a conventional overhead projector, was only known by its forgettable brand name. Today, such tools of text and talk are commonplace, even though they are now nearly always framed by the 'bullet point'

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[1] Few members of the New London Group are still in the positions they were in 1996. Courtney Cazden has retired from the Graduate School of Education, Harvard University USA but remains as active as ever as Charles William Eliot Professor Emerita; Bill Cope is Research Professor in the Department of Educational Policy Studies, University of Illinois, Urbana-Champaign; Norman Fairclough has retired from Lancaster University, UK, and now lives and writes from Bucharest; Jim Gee is Mary Lou Fulton Presidential Professor of Literacy Studies at Arizona State University, USA; Mary Kalantzis is Dean of the College of Education, University of Illinois, Urbana-Champaign; Gunther Kress is Head of the Department of Culture, Language and Communication at the Institute of Education, University of London; Allan Luke is a research professor at the Queensland University of Technology, Australia; Carmen Luke is a professor in the Centre for Critical and Cultural Studies, University of Queensland, Australia; Sarah Michaels is at the Hiatt Center for Urban Education, Clark University, USA; and Martin Nakata is Director of Indigenous Academic Programs at Jumbunna Indigenous House of Learning, University of Technology, Sydney, Australia. In writing this revised paper we also involved colleagues with whom we have developed close working relations as they have tested and extended the Multiliteracies ideas over the past ten years: Denise Newfield and Pippa Stein of the University of the Witwatersrand, South Africa; Ambigapathy Pandian and Shanthi Balraj of Universiti Sains Malaysia, Penang, Malaysia; and Vangelis Intzidis and Eleni Karantzola of the University of the Aegean, Rhodes, Greece. We want to thank the other members of the New London Group for their comments and suggestions, and Nicola Yelland for her suggestion that it was time to write it.

lists of PowerPoint 'slides' in a didactic 'presentation' rather than the scrolling text of a word processor which we used as our joint thinking and writing tool over that week.

Using these then-unusual technologies, we did another strange thing for a group of academics. We committed ourselves to a collaborative writing exercise which involved, not two or three people, but ten. During the week we had to listen hard to what other people had to say, pick up on the cadences in their arguments, capture the range of perspectives represented by the members of the group, negotiate our differences, hone the key conceptual terms and shape a statement which represented a shared view at the common ground of our understandings.

Since 1996, we have often come together in a virtual sense, worked together on various projects and published together. Members of the New London Group have also met annually at the International Conference on Learning: in Townsville Australia, 1995; Alice Springs, Australia, 1997; Penang, Malaysia, 1999; Melbourne, Australia, 2000; Spetses, Greece, 2001; Beijing, China, 2002; London, UK, 2003; Havana, Cuba, 2004; Granada, Spain, 2005; Montego Bay, Jamaica, 2006; and Johannesburg, South Africa, 2007. Numerous new relationships have been formed and old ones consolidated at these conferences, and many publications have followed in the *International Journal of Learning* (http://www.Learning-Journal.com). The intellectual genesis of this vibrant conference and the journal can be traced back to the New London Group. For the most part, the New London Group has continued to work together. We have met irregularly and in different combinations. We have created networks and affiliations and worked in joint projects with new colleagues in their varied institutions and national settings. Ideas have developed, friendships have deepened and relationships have spread to encompass new people and exciting endeavours.

Beyond this personal experience of the life of ideas, none of us could have predicted the reach and the influence the multiliteracies idea would have, way beyond our own circles of personal and professional association. Even the idea of a 'Google search' was unimaginable ten years ago. However, a 2006 search shows that more than 100,000 web pages which mention 'multiliteracies', an unusually accurate figure because we coined the word during our New London meeting to capture the essence of our deliberations and our case.

In the initial article and book, we presented 'A Pedagogy of Multiliteracies' as a programmatic manifesto. The world was changing, the communications environment was changing, and it seemed to us to follow that literacy teaching and learning would to have to change, as well. This was the gist of our argument. The details were in an analysis of the questions of 'why', 'what' and 'how' of literacy pedagogy.

To the 'why' question, we responded with an interpretation of what was happening to meaning making and representation in the worlds of work, citizenship and personal life which might prompt a reconsideration of our approaches to literacy teaching and learning. We were interested in the growing significance of two 'multi' dimensions of 'literacies' in the plural—the multilingual and the multimodal. Not only was multilingualism an increasingly significant phenomenon requiring a more adequate educational response in the case of minority languages and the context of globalisation (Cazden, 2006b; Ismail and Cazden, 2005). We also felt that discourse differences within a language had not been adequately taken into account. Central to our broader of interpretation of multilingualism was the burgeoning variety of what Gee calls 'social languages' in professional, national, ethnic, subcultural, interest or affinity group contexts (Gee, 1996). For all the signs that English was becoming a world language, it was also diverging into multiple Englishes. Whereas traditional

literacy curriculum taught to a singular standard (grammar, the literary canon, standard national forms of the language), the everyday experience of meaning making was increasingly one of negotiating discourse differences. A pedagogy of Multiliteracies would need to address this as a fundamental aspect of contemporary teaching and learning.

In response to the question of 'what' we spoke of the need to conceive meaning-making as a form of design or active and dynamic transformation of the social world, and its contemporary forms increasingly multimodal, in which the linguistic, the visual, the audio, the gestural and the spatial modes of meaning were increasingly integrated in everyday media and cultural practices. These constituted the second of the 'multis'—the inherent multimodality of contemporary forms of representation. As a consequence, the traditional emphasis on alphabetical literacy (letter sounds in words in sentences in texts in literatures) would need to be supplemented in a pedagogy of Multiliteracies by learning how to read and write multimodal texts which integrated the other modes with language.

And to the question of 'how', we analysed the limitations both of traditional literacy teaching which set out to transmit language rules and instil good practice from literary models ('Overt Instruction'), and progressivisms which considered the immersion or natural learning models that worked for oral language learning to be an adequate and sufficient model for literacy learning ('Situated Practice'). Instead, we suggested that a pedagogy of Multiliteracies would involve a range of pedagogical moves, including both 'Situated Practice' and 'Overt Instruction', but also entailing 'Critical Framing' and 'Transformed Practice'.

Do these generalisations still hold? So much has happened over these past ten years. When we met back in 1994, email was new; the web was barely known and it was impossible to imagine its impact; almost no-one had mobile telephones; and writing on a phone or using a phone to take photographs were unthinkable. Now we live a world of iPods, wikis, blogs and SMS messages. Not even nameable a decade ago, these are just a few of the new spaces in which representation now occurs. With these new communication practices, new literacies have emerged. And these new literacies are embodied in new social practices—ways of working in new or transformed forms of employment, new ways of participating as a citizen in public spaces, and even perhaps, new forms of identity and personality.

This article revisits the propositions in the original article and book in the light of the remarkable changes that have occurred in the world over the last ten years, as well as what we and other colleagues have learnt from extensive and intensive experiences of testing the ideas in the manifesto in school realities. Rather than write a blow-by-blow analysis of what's the same and what's changed in the world and our collective and various views of the world, we have decided to put the case afresh. We've found that the basic shape of our original position has stood the test of time. In fact, it has proved a useful guide to understanding and practice—the centrality of diversity, the notion of design as active meaning making, the significance of multimodality and the need for a more holistic approach to pedagogy. However, the original case does need to be restated in the light of experience, its examples updated, its language adapted to contemporary circumstances and its pedagogical agenda sharpened in the context of today's politics of education.

This article was drafted by Mary Kalantzis and Bill Cope after canvassing the original members of the New London Group for their current reflections and reviewing their subsequent writings. We also spent several very productive days with Courtney Cazden in Melbourne in January 2006. And we were provided extensive

documentation of recent work from colleagues who have sought to apply the Multiliteracies theories in Australia, South Africa, Malaysia and Greece. The text was then reviewed and commented upon by the original members of the New London Group, as well as the colleagues whose work appears in the form of case studies.

The 'Why' of Multiliteracies

First, why literacy? Or even more fundamentally, why education (in which literacy is a 'basic')? On this front, not much has changed in ten years. The two sides of the political spectrum, characterised loosely as 'left' and 'right', remain poles apart in what they see as the appropriate role of literacy learning in society, and indeed, education in general.

There is no dispute, however, that education provides access to material resources in the form of better paid employment; that it affords an enhanced capacity to participate in civic life; that it promises personal growth. Upon education still rests one of the key promises of modern societies. People of the 'right' call this promise 'equity'. They say that the world is inevitably and irreducibly unequal. However, inequality is not unjust insofar as education is one of society's 'opportunities'. It is free and compulsory, and through education you can become anything you like and succeed on your own terms—if you have the will and the 'ability', that is. Education is one of the key sources of social equity. People of the 'left', however, maintain that the goal of education is equality. Whether their vision is wishful or utopian, nothing less than equality is an acceptable objective, even if in the short term all that can be achieved in education is to pursue an ongoing struggle to reduce the gap between the haves and the have-nots—hence the compensatory programs, the remedial curriculum for children who have been 'left behind' and the special efforts made in schools in poor neighbourhoods.

Whether the rhetoric is based on notions of equity or equality, education continues to fail to meet these promises. If it could provide either greater equity or equality, it is doing neither. The gap between the rich and the poor is growing, and even when the poor sometimes become slightly less poor, it is rarely because education has improved. Maybe it is a delusion to think education could ever be an instrument that ameliorates society's most fundamental ills. Nevertheless, education, and literacy teaching in particular, does continue to make such promises.

But an odd thing has happened over the past decade. Education has become more prominent topic in the public discourse of social promise. The expectations of education have been ratcheted up, in the rhetoric of the right as much as that of the left. More than ever before, our political leaders are saying that education is pivotal to social and economic progress. They express this in the rhetoric of the 'new economy' and 'knowledge society'. Business leaders also tell us that knowledge is now a key factor of production, a fundamental basis of competitiveness—at the personal, enterprise and national levels. And as knowledge is the result of learning, education is more important than ever. This does not necessarily translate into greater public investment in education (a businesslike approach, one would think). But today's rhetoric about the importance of education does give educators greater leverage in the public discourse than we had a decade ago (Kalantzis and Cope, 2006a).

And literacy education in particular? What is its role in underwriting equity/equality in the knowledge society, or even investment in the 'knowledge economy'? How is that tug of war playing out in reality as well as in teaching and learning practices? To answer these questions, we will look once again at what's

happening in work, what's happening in the public lives of citizens and what's happening in the personal lives and identities of people.

Workers

In our original formulations, we contrasted the new capitalism with the old. The old capitalism was a place of rigid hierarchy, a top-down discourse of discipline and command, and an ever-finer division of labour which deskilled workers. Meanwhile, school was a place which inculcated a rudimentary 'basics'. Literacy, in fact, was two of the 'three R's': reading, writing and arithmetic. Children memorised spelling lists, and learnt the parts of speech and correct grammar. School was a universe of straightforwardly right and wrong answers, of authoritative texts and authoritarian teachers. The underlying lesson of the basics was about the social order and its sources of authority, a lesson which was appropriate for a society which expected its workers to be passively disciplined.

The trends in the 'new capitalism' we described ten years ago have if anything accelerated over the ensuing decade, or at least they have in the more prosperous parts of 'advanced' economies. As befits the public rhetoric about the 'knowledge economy', 'human capital' is now presented as the key to having a 'competitive edge', whether that be the skills and knowledge of an individual seeking employment, or the aggregate of human capital in an enterprise, or the international competitiveness of a regional or national workforce in the world economy. This is one of a number of intangibles which have come to figure as of equal or sometimes even greater importance than fixed capital. Others include intellectual property, technological know-how, business processes, organisational flexibility, corporate memory, brand identity, design aesthetics, customer relationships and service values. These intangibles are all the stuff of learning, whether that is informal or tacit learning in the 'corporate culture', or explicit learning via 'knowledge management' in the 'learning organisation', or human qualities that can be acquired in formal institutions of education or special training programs (Kalantzis, 2004a).

The everyday life experience of work has also changed in 'new economy' organisations. Replacing the hierarchical command structures of the old workplace are the horizontal relations of teamwork. Replacing the logic of the division of labour and deskilling is the logic of 'multiskilling' or creating the rounded and flexible worker whose skills repertoire is ever-broadening. Replacing mass production of uniform products is customisation of products and services for niche markets, each representing a kind of identity in the commodity space of the new capitalism. Replacing the orders of the boss are 'flattened hierarchy' and the supposedly self-motivating dynamics of belonging to the corporate culture, enacting its vision and personifying its mission. Replacing the formalities of the old primary discourses of command are the informalities of an apparent egalitarianism—the conversational meetings and chatty emails instead of the stiff old memos, the chummy retreats that aim to build interpersonal relationships and the training sessions that build corporate culture instead of the deference one used to show to the boss. Replacing self-interest and competition are relationships of sharing and collaboration, exemplified in open source software which is socially constructed, freely available and extremely valuable. And replacing line management are relationships of pedagogy: mentoring, training, and managing corporate knowledge in the learning organisation. These kinds of change, surely, provide educators reason to claim to be a central part of the main game of the 'new economy'.

In this interpretation of the dynamics of today's capitalism, how do we create a literacy pedagogy which promotes a culture of flexibility, creativity, innovation and initiative? Even more clearly than was the case ten years ago, the old literacy and its underlying moral economy, are no longer adequate on their own. In the pedagogy of Multiliteracies, we have attempted to develop a literacy pedagogy which will work pragmatically for the 'new economy', and for the most ordinarily conservative of reasons—what will help students get a decent job, particularly if the dice of opportunity seem to be loaded against them. Literacy needs much more than the traditional basics of reading and writing the national language; in the new economy workplace it is a set of supple, variable, communication strategies, ever-diverging according the cultures and social languages of technologies, functional groups, types of organisation and niche clienteles.

Equally plausible is another, perhaps more sanguine reading of today's capitalism, born of the global convulsions of the last decade and the transformations that have occurred in the economy and education. In this reading, we should be under no illusions about the liberatory potential of the new economy or even about how 'new' it is. The discourses and practices of today's workplace can equally be read as a highly sophisticated form co-option—the co-option of team work, vision and mission and corporate culture, for instance, in which everyone is supposed to personify the enterprise, to think and will and act the enterprise. The more you feel you belong to this kind of enterprise, its inequalities, its iniquities indeed, recede into the inevitability of common sense. And a lot of people are left out of the new economy: the service workers in hospitality and catering who wash dishes and make beds; the illegal immigrants who pick fruit and clean people's houses; and the people who work in old-style factories in China or call centres in India. Patterns of exclusion remain endemic. And even in the heart of the new economy, those who don't manage to clone to the corporate culture and buy into its feigned egalitarianism, people who find their difference makes them an outsider, however subtlety, find their aspirations to social mobility hitting 'glass ceilings'. In this case, a pedagogy of Multiliteracies may go one step further, to help create conditions of critical understanding of the discourses of work and power, a kind of knowing from which newer, more productive and genuinely more egalitarian working conditions might emerge (Cope and Kalantzis, 1997; Gee, 2000; Gee, 2002; Gee et al., 1996; Kalantzis, 2004a; Kalantzis and Cope, 2000b).

Citizens
Now that the dust of has settled after the Cold War, the last years of the twentieth century represent a turning point in the history of the nation-state and the nature of the relationship of states to citizenries. The welfare state had been the capitalist world's answer to communism. Twentieth century capitalism felt it had to afford a program of redistributive justice, a large and expensive 'nanny' state which blunted its sharper edges and worst inequalities.

Over the past decade, states in capitalist societies have began a conscious program of retreat, shrinking the state and reducing the scale of its welfare programs. They have developed policies of deregulation in which professional and business communities create their own standards of operation. They have privatised formerly public assets, selling them to corporations. These changes have been articulated through the ideology of 'neoliberalism', whose key mantra is that small states afford citizens greater liberty. In this theory, society is created through the market, and the state should stay out of social and economic affairs to as great a degree as possible.

Every tax cut, every program cut, is made in the name of this neoliberal interpretation of liberty.

These developments have been experienced in schools as shrinking state funding, pressure for teaching to become a self-regulating profession, self-managing schools that are run more like businesses or corporations, and increasing the numbers of private schools and even privately owned for-profit schools. Education is conceived more as a market than a service provided to citizens by a welfare state. In the context of the shrinking the state, its role is being reduced to the most basic of basics—literacy as phonics and numeracy as algorithmic procedures—on the assumption that the market can do the rest for those who can afford the tuition fees and find value for their money.

Today's state of affairs can be interpreted in two ways. The first interpretation is bleak, in which one set of evils is being replaced by another, albeit quite different, set. The spread of the ideology and practices of the market exacerbates inequality. Neoliberalism in practice reduces the quality and status of education for many, particularly those who have no alternative but public schooling.

Ten years after our initial observation of these trends, and without denying their veracity, we would also like to suggest a parallel, strategic interpretation. As the state shrinks, we witness the rise of self-governing structures in civil society. The Internet is governed, not by any state or coalition of states, but by the World Wide Web Consortium, a group of interested experts and professionals who cohere around elaborate processes of consensus building and decision making. Professional standards are increasingly developed by the professions themselves—teaching less so than other professions, but it may be a worthwhile agenda for teachers to take increasing control of their own standards. And organisations such as schools which were formerly the objects of command at the nether reaches of bureaucratic hierarchy increasingly have to regard themselves as sites of self-managing corporate bodies.

For better at the same time as for worse, the old top-down relationship of state to citizen is being replaced by multiple layers of self-governing community, from the local to national and global levels. Old schooling inculcated loyalty to the nation-state. We would argue today that new schooling needs to promote a very different kind of citizenship—an active, bottom-up citizenship in which people can take a self-governing role in the many divergent communities of their lives—the work teams, their professions, their neighbourhoods, their ethnic associations, their environments, their voluntary organisations, their affinity groups (Kalantzis, 2000). Some of these may be local and physically co-located; others may be dispersed and virtual and even global.

To the extent that these self-governing spaces in civil society are opened up by government retreat and tax cuts, they may been doomed to penury and failure. They may also contribute to a dangerous fragmentation into a not-so-civil society. This is the basis of the case against neoliberalism. Its long-term success as a strategy for governance is by no means assured, and its desirability is, to say the least, debateable.

Either way, the old literacy is no longer adequate either to support decentralised governance along neoliberal lines, nor a civil society capable of making reasonable demands of its state. The Multiliteracies approach suggests a pedagogy for active citizenship, centred on learners as agents in their own knowledge processes, capable of contributing their own as well as negotiating the differences between one community and the next.

Persons

Perhaps even more central to the case for Multiliteracies today is the changing nature of everyday life itself over the past decade. We are in the midst of a profound shift in the balance of agency, in which as workers, citizens and persons, we are more and more required to be users, players, creators and discerning consumers rather than the spectators, delegates, audiences or quiescent consumers of an earlier modernity. Albeit in fits and starts, the command society is being displaced by the society of reflexivity. Take something so ordinary and pervasive as narrative. In everyday family and community life, the narratives of gaming have over the past decade become an even bigger business than Hollywood. From the most impressionable of ages, children of the Nintendo, PlayStation and X-Box generation have become inured to the idea that they can be characters in narratives, capable of determining or and at the very least influencing the story's end (Gee, 2003; Gee, 2005). They are content with being no less than actors rather than audiences, players rather than spectators, agents rather than voyeurs, users rather than readers of narrative. Not content with programmed radio, these children build their own play lists on their iPods. Not content with programmed television, they read the narratives of DVD and Internet streamed video at varying depth (the movie, the documentary about the making of the movie) and dip into 'chapters' at will. Not content with the singular vision of sports telecasting of mass television, they choose their own angles, replays and statistical analyses on interactive digital TV (Kalantzis, 2006b). Old logics of literacy and teaching are profoundly challenged by this new media environment. There are bound to fall short, not only disappointing young people whose expectations of engagement are greater, but also for failing to direct their energies to the developing the kinds of persons required for the new domains of work, citizenship and personality (Yelland, 2006).

The trends, of course, are contradictory. For every moment of in which agency is passed over to users and consumers, power is also centralised ways that become more disturbing with time. The ownership of commercial media, communications channels and software platforms is becoming alarmingly concentrated (Jenkins, 2004). Besides, what extent are the new media which engage user agency, such as games, an escape from reality instead of a preparation for it? And for every dazzling new opening to knowledge and cultural expression in the new 'gift economy' of the Internet—and Google is a prime example of this—there are disturbing new possibilities for the invasion of privacy, cynically targeted advertising and control over knowledge sources and media (Lanchester, 2006).

One thing that is clear, however. Diversity is pivotal in today's lifeworlds, and much more profoundly and pervasively so than the straightforward demographic groupings which underwrote an earlier identity politics of gender, ethnicity, race and disability—forms of politics which first unsettled the hoped-for homogeneity of mass society and the nation-state. The moment one allows any more scope for agency, one finds oneself facing layers upon layer of difference—in workplaces, markets, self-governing communities, amongst, between and within personalities. One discovers actually existing agencies in the massively plural, and not the fabrications and falsifications the command society with its one people, one state nationalism, its regime of mass production and uniform mass consumption, and the pretensions to cultural homogeneity of the old mass media and mass culture. These go far deeper than simple demographics, uncovering deep differences of experience, interest, orientation to the world, values, dispositions, sensibilities, social languages and discourses. And insofar as one person inhabits many lifeworlds (home, professional,

interest, affiliation), their identities are multilayered. Diversity, in fact, has become a paradoxical universal. The kind of person who can live well in this world is someone who has acquired the capacity to navigate from one domain of social activity to another, who is resilient in their capacity to articulate and enact their own identities and who can find ways of entering into dialogue with and learn new and unfamiliar social languages (Cope and Kalantzis, 1998). One of the fundamental goals of a pedagogy of Multiliteracies is to create the conditions or learning which support the growth of this kind of person, a person comfortable with themselves as well as flexible enough to collaborate and negotiate with others who are different to themselves in order to forge a common interest.

Whether it be in the domains of governance, work or cultural life, the homogenising command society is tending to give way to the society of diversity and reflexivity. Or so we might say in one reading of our contemporary situation. In another reading we might experience these same phenomena as fragmentation, ego-centrism, randomness, ambiguity and anarchy. Or we might pronounce it a mere illusion in the context of the centralisation of 'knowledge economy' power in the hands of fewer people. In either view, the ramifications for teaching and learning are enormous. A pedagogy of Multiliteracies can be agnostic about the stance learners and teachers may wish to take in relation to changing social conditions. They might take the route of compliance or that of critique. If they take the former route, education will help them develop capacities which will enable them to access the new economy and share in its benefits. Or they may reject its values and their consequences in the name of an emancipatory view of education's possibilities. Either way, their choices will be more explicit and open to scrutiny.

Over the past ten years we have tried to track, document, reflect on enactments of Multiliteracies in action and as a consequence witness the huge variations in interpretation that have resulted—from 'make-over' practices that bolt on the new onto the old, to breakthrough learning relationships that are genuinely innovative. Whatever the path, schooling in general and literacy pedagogy in particular, cannot afford to ignore the trajectories of change. And they need to be able to justify the pedagogical paths they choose to take.

	Recent Pasts		Near Futures
Workers	- Hierarchical command structures - Deskilling - Discipline - Rudimentary basics	>	- Human capital, value in 'intangibles' - Knowledge economy - Learning is critically related to work - New lines of inequality
Citizens	- Command politics - The 'nanny state' - Nation-state cultural and linguistic uniformity	>	- Neoliberalism - Globalism - Self-governing communities
Persons	- Command personalities and compliant personalities - Pressures to homogeneity	>	- Rebalancing of agency - Deep diversity

The 'What' of Multiliteracies

Over the past ten years, we have struggled to articulate and apply the pedagogy of 'design' and 'multimodality'. During that time, our tone and our emphasis has changed. Three major innovations over that time have been: to focus less on the teachable specificities of meaning-system and more on the heuristics of learners' discovering specificities amongst the enormously varied field of possibly-relevant

texts; to develop a theory of semiotic transformation as a theory of learning itself; and to re-configure the modalities of multimodality.

In a pedagogy of Multiliteracies, all forms of representation, including language, should be regarded as dynamic processes of transformation rather than processes of reproduction. That is, meaning makers are not simply replicators of representational conventions. Their meaning-making resources may be found in representational objects, patterned in familiar and thus recognisable ways. However, they rework these objects. Meaning makers don't simply use what they have been given; they are fully makers and remakers of signs and transformers of meaning.

The pedagogical implications of this shift in the underlying conception of meaning making or semiosis are enormous. In the old literacy, learners were passive recipients or at best agents of reproduction of received, sanctioned and authoritative representational forms. The logic of literacy pedagogy was one that made it an instrument of social design which buttressed a regime of apparent stability and uniformity. A pedagogy of Multiliteracies, in contrast, requires that the enormous role of agency in the meaning making process be recognised, and in that recognition, it seeks to create a more productive, relevant, innovative, creative and even perhaps emancipatory, pedagogy. Literacy teaching is not about skills and competence; it is aimed a creating a kind of person, an active designer of meaning, with a sensibility open to differences, change and innovation. The logic of Multiliteracies is one which recognises that meaning making is an active, transformative process, and a pedagogy based on that recognition is more likely to open up viable lifecourses for a world of change and diversity.

Designing Meanings
When developing the key ideas for a pedagogy of Multiliteracies a decade ago, we sought to replace static conceptions of representation such as 'grammar' or 'the literary canon' with a dynamic conception of representation as 'design'. The word 'design' has a fortuitous double meaning, simultaneously describing intrinsic structure or morphology, and the act of construction. Design in the sense of construction is something you do in the process of representing meanings, to oneself in sense-making processes such as reading, listening or viewing, or to the world in communicative processes such as writing, speaking or making pictures. The Multiliteracies view of design has three aspects: Available Designs (found representational forms); the Designing one does (the work you do when you make meaning, how you appropriate and revoice and transform Available Designs); and The Redesigned (how, through the act of Designing, the world and the person are transformed).

Available Designs are the found or discernable patterns and conventions of representation. There are many ways to describe similarities and dissimilarities in meaning making, including mode (such as linguistic, visual, audio, gestural, tactile and spatial), genre (the shape a text has) and discourse (the shape meaning-making takes in a social institution) (Gee, 1996; Kress, 2003). It was the project of old literacy teaching to create a definitive catalogue of useable and advisedly useful conventions of meaning, conveniently confined to a standard national form of written language. In the contemporary domains of work, citizenship and everyday life, however, relevant conventions are hugely variable and inherently dynamic. This is even more so than was the case ten years ago. They are hugely variable across modes (for instance, the deep multimodality of contemporary communications channels and technologies), and also between diverging social languages (for instance, of affinity,

profession, expertise, ethnicity, subculture and style). Catalogues of convention can only ever be partial, and they embody an understanding of agency (here is the catalogue, so you should learn it) which, if our analysis of changing work, citizenship and personal life is correct, becomes less and less germane to our changing times.

Rather than address the specificities meaning-making systems (which we tended to do earlier), we propose that the conventions of any domain be addressed with open-ended questions about meaning, such as:

- *Representational:* What do the meanings refer to?
- *Social:* How do the meanings connect the persons they involve?
- *Structural:* How are the meanings organised?
- *Intertextual:* How do the meanings fit into the larger world of meaning?
- *Ideological:* Whose interests are the meanings skewed to serve?

A pedagogy of Multiliteracies speaks to the question of conventions in meaning, not to tell of their morphology in a formalistic fashion, but in order to describe their open-ended and shifting representational processes and account for their purposes. These processes have a cultural and situational basis. Their regularities are the reason for their context-specific legibility; their unfamiliarity is what we need to deal with when we cross into a new domain. Our aim is not simply to teach the structures or forms of modalities, or genres or discourses because, in today's world especially, that can only open up the receding horizons of complexity and diversity. Rather it is to design learning experiences through which learners develop strategies for reading the new and unfamiliar in whatever form they may manifest themselves. Instead of simply telling of authoritative designs, it asks the question of design, or the relation of meaning form to meaning function. In addressing this question, learners may be able draw upon various metalanguages describing the forms of contemporary meaning—professional and specialist, for instance—and from these construct their own frames of functional explanation.

Designing is the act of doing something with Available Designs of meaning, be that communicating to others (such as writing, speaking, making pictures) or representing the world to oneself or others' representations of it (such as reading, listening or viewing). Against the inert notions of acquisition, articulation, competence or interpretation that underpin the old literacy teaching, a pedagogy of design recognises the role of subjectivity and agency in this process. The meaning-maker-as-designer draws selectively from the infinite breadth and complexity of Available Designs in the many domains of action and representation that make up the layers of their past and new experience. The act of representation is interested and motivated. It is directed, purposive and selective. It is an expression of an individual's identity at the unique junction of intersecting lines of social and cultural experience. In Designing, the meaning maker enacts a new design. However, in putting Available Designs to use, they are never simply replicating found designs even if their inspiration is established patterns of meaning making. What the meaning maker creates is a new design, an expression of their voice which draws upon the unique mix of meaning making resources, the codes and conventions they happen to have found in their contexts and cultures. The moment of design is a moment of transformation, of remaking the world by representing the world afresh. Creativity, innovation, dynamism and divergence are normal semiotic states. This is a prospective view of semiosis, a view which puts imagination and creative reappropriation of the world at the centre of representation, and thus learning. The old literacy, by contrast, required of its teachers and learners a retrospective view of meaning which relied on the successful transmission and acquisition of received conventions and canons.

Repetition, replication, stability and uniformity had to be imposed by the old literacy, against the grain of the human-semiotic nature of designing.

The Redesigned is the residue, the traces of transformation that are left in the social world. The texts of Designing become The Redesigned, new resources for meaning in the open and dynamic play of subjectivities and meanings. One person's Designing becomes a resource in another person's universe of Available Designs. This is how the world is left changed as a consequence of the transformational work of Designing. In the life of the meaning-maker, this process of transformation is the essence of learning. The act of representing to oneself the world and others' representations of it, transforms the learner themselves. The act of Designing leaves the designer Redesigned. As the designer makes meanings, they exert their subjectivity in the representational process, and as these meanings are always new ('insights', 'expressions', 'perspectives'), they remake themselves. The result of their representational work, their exertion of subjectivity, is transformed subjectivity—and thus learning (Cope and Kalantzis, 2000b; Kress, 2000a; Kress, 2003). This is one of the key developments in the Multiliteracies theory over the past ten years: the development of a theory of learning in which transformation or redesign is a pivotal microdynamic.

<div align="center">Designs of Meaning</div>

Available Designs:	Found and findable resources for meaning: culture, context and purpose-specific patterns and conventions of meaning making.
Designing:	The act of meaning: work performed on/with Available Designs in representing the world or other's representations of it, to oneself or others.
The Redesigned:	The world transformed, in the form of new Available Designs, or the meaning designer who, through the very act of Designing, has transformed themselves (learning).

Modalities of Meaning

Of all the changes currently underway in the environment of meaning-design, one of the most significant challenges to the old literacy teaching is the increasing multimodality of meaning. Traditionally, literacy teaching has confined itself to the forms of written language. The new media mix modes more powerfully than was culturally the norm and even technically possible in the earlier modernity dominated by the book and the printed page. Through the theorisations and curriculum experimentations of the past ten years, we have reconfigured the range of possible modalities. We have separated written and oral language as fundamentally different modes (Kress, 2003), added a tactile mode and redefined the contents and scope of the other modes:

- *Written Language:* writing (representing meaning to another) and reading (representing meaning to oneself)—handwriting, the printed page, the screen.
- *Oral Language:* live or recorded speech (representing meaning to another); listening (representing meaning to oneself).
- *Visual Representation:* still or moving image, sculpture, craft (representing meaning to another); view, vista, scene, perspective (representing meaning to oneself).
- *Audio Representation:* music, ambient sounds, noises, alerts (representing meaning to another); hearing, listening (representing meaning to oneself).
- *Tactile Representation:* touch, smell and taste: the representation to oneself of bodily sensations and feelings or representations to others which 'touch' them bodily. Forms of tactile representation include kinaesthesia, physical contact,

skin sensations (heat/cold, texture, pressure), grasp, manipulable objects, artefacts, cooking and eating, aromas.

- *Gestural Representation:* movements of the hands and arms, expressions of the face, eye movements and gaze, demeanours of the body, gait, clothing and fashion, hair style, dance, action sequences (Scollon, 2001), timing, frequency, ceremony and ritual. Here gesture is understood broadly and metaphorically as a physical act of signing (as in 'a gesture to ...'), rather than the narrower literal meaning of hand and arm movement. Representation to oneself may take the form of feelings and emotions or rehearsing action sequences in one's mind's eye.
- *Spatial Representation:* proximity, spacing, layout, interpersonal distance, territoriality, architecture/building, streetscape, cityscape, landscape.

We have also undertaken new work on the capacity of different modes to express many of the same kinds of things; the representational potentials that are unique unto themselves. In other words, between the various modes, there are inherently different or incommensurate affordances as well the parallel or translatable aspects of the representational jobs they do.

On the side of parallelism, a grammar of the visual can explain the ways in which images work like language. Action expressed by verbs in sentences may be expressed by vectors in images. Locative prepositions in language are like foregrounding or backgrounding in images. Comparatives in language are like sizing and placement in images. The given and the new of English clause structures are like left/right placement in images (in the cultures of left to right, viewing, at least), and the real/ideal in language is like top/down placement in images (Kress, 2000b; Kress and van Leeuwen, 1996). The process of shifting between modes and re-representing the same thing from one mode to another is called synaesthesia. Representational parallels make synaesthesia possible.

Traditional literacy does not by and large recognise or adequately use the meaning and learning potentials inherent in synaesthesia. It tries to confine itself to the monomodal formalities of written language, as if the modality of written language could be isolated as a system unto itself. This was always a narrowing agenda. Today, even more than a decade ago, such narrowing is unrealistic given the multimodal realities of the new media and broader changes in the communications environment.

However, the consequences of narrowing of representation and communication to the exclusive study of written language (sound-letter correspondences, parts of speech and the grammar of sentences, literary works and the like) are more serious than its still powerful, though declining, relevance to contemporary conditions. Synaesthesia is integral to representation. In a very ordinary, material sense, our bodily sensations are holistically integrated, even if our focus of meaning-making attentions in any particular moment might be one particular mode. Gestures may come with sound; images and text sit side by side on pages; architectural spaces are labelled with written signs. Much of our everyday representational experience is intrinsically multimodal. Indeed, some modes are naturally close to others, so close in fact that the one easily melds into the others in the multimodal actualities of everyday meaning. Written language is closely connected to the visual in its use of spacing, layout and typography. Spoken language is closely associated with the audio mode in the use of intonation, inflection, pitch, tempo and pause. Gesture may need to be planned or rehearsed, either in inner speech (talking to oneself), or by visualisation. Children have natural synaesthetic capacities, and rather than build upon and extend these, school literacy attempts over a period of time to separate them off, to the extent even

of creating different subjects or disciplines, literacy in one cell of the class timetable and art in another (Kress, 1997).

The different modes of meaning are, however, not simply parallel, and this is something we have come to recognise more clearly in the work we have done over the past decade. Meaning expressed in one mode cannot be directly and completely translated into another. The movie can never be the same as the novel. The image can never do the same thing as the description of a scene in language. The parallelism allows the same thing to be depicted in different modes, but the meaning is never quite the same. In fact, some of the differences in meaning potential afforded by the different modes are fundamental. Writing (along the line, sentence by sentence, paragraph by paragraph, one page after the next) sequences elements in time and so favours the genre of narrative. Image collocates elements according to the logic of simultaneous space, and so favours the genre of display. Writing's intrinsic temporality orients it to causality; image to location. Written language is open to a wide range of possible visualisations (is the movie how you visualised things when you were reading the book?). The words have to be filled in with visual meaning. Visuals, however, require that the viewer creates order (time, causation, purpose, effect) by arranging elements that are already visually complete (Kress, 2003). Reading and viewing, in other words, require different kinds of imagination and different kinds of transformational effort in the re-representation of their meanings to oneself. They are fundamentally different ways of knowing and learning the world.

This paradoxical mix of parallelism and incommensurability between modalities is what makes addressing multimodality integral to the pedagogy of Multiliteracies. In the face of the 'back to basics' movement, we would put the case that synaesthesia is a pedagogical move which makes for powerful learning in a number of ways. Some learners may be more comfortable in one mode than another. This may be their preferred mode of representation—what comes to them easiest, what they're good at, the mode in which they best express the world to themselves and themselves to the world. One person may prefer to conceive a project as a list of instructions; another as a flow diagram. The parallelism means that you can do a lot of the same things in one mode that you can do in the next, so a pedagogy which restricts learning to one artificially segregated mode will favour some types of learners over others. It also means that the starting point for meaning in one mode may be a way of extending one's representational repertoire by shifting from favoured modes to less comfortable ones. If the words don't make sense, the diagram might, and then the words start to make sense. But the incommensurability of modes works pedagogically, too. The words make sense because the picture conveys meaning that words could never (quite or in a completely satisfactorily way) do. Conscious mode switching makes for more powerful learning.

If the Multiliteracies agenda captures some generalities of multimodality which extend beyond the contemporary moment, changes in the contemporary communications environment simply add urgency to the call to consciously deploy multimodality in learning. We are in the midst of a seismic shift in communications, from the world told through the medium of writing on the page of the book, magazine or newspaper, to the world shown through the medium of the visual on the screen. There was a compelling linearity to the traditional page of written text. Its reading path was clear, even if you had to fill in what the referents of the words looked and felt like. The lexis of writing may have demanded some semantic filling, but its syntax was clear. In the case of images, the elements of meaning are given (lexis) but, despite some loose reading conventions (left to right, top to bottom) influenced by the

culture of reading scripts that run in this way, the reading path is more open that of writing. The syntax is in the hands of the viewer (Kress, 2003). In this regard, in the construction of the text, the balance of agency in meaning construction has shifted in favour of the viewer.

Web-pages today are full of written text, but the logic of their reading is more like the syntax of the visual than that of the written language. Reading the screen requires considerable navigational effort. Today's screens are designed for many viewing paths, allowing for diverse interests and subjectivities amongst viewers, and the reading path they choose will reflect the considerable design effort viewer has put into their reading. In fact, the commonsense semantics is telling—'readers' of books have become 'users' now that they are on the web. Nor this only shift only happening on the web—printed pages more and more resemble screens. The mix of image, and caption, and list, and breakout box is such that the reading paths of the image are now to be found on the page—the science textbook, the glossy magazine, the contemporary newspaper or the instruction manual, for instance. And where writing is found, visual supports allow a simplified syntax for the writing itself, in the form, for instance, of a decreasing clausal complexity. This decreasing complexity of writing, however, is compensated by an increasingly complex multimodality (Kress, 2003).

The reasons for this change are in part practical and material. The elementary modular unit in the manufacture of traditional pages was the character 'type' of Gutenberg's printing press. It wasn't easy to print images on the same page as typography. The elementary modular unit of today's digit media, however, is the pixel, the same unit from which images are rendered. In fact, this process is longer than the history of digitisation. It started with lithographic printing—the application of photographic processes to printing in the mid twentieth century (Cope and Kalantzis, 2004). Today, even sound is rendered from the same source as pixels—the bits and bytes of digitised information storage. This means that the practical business of doing multimodality is easy now, and because it is, we're using the affordances of the complementary modes to ease the semantic load that had been placed on written language. But, in so doing, we have created new complexities in multimodal representation. It is time to accord this the same earnest attention that literacy teaching has applied to language.

For every shift in the direction of the visual in the new communications environment, however, there are other returns to writing, unimaginable when we first wrote the Multiliteracies manifesto—email, SMS and blogging, for instance. None of these, however, are simply returns. They all express new forms of multimodality—the use of icon in SMS and the juxtaposition of image in MMS (sending images with text), the layout of blog pages and email messages, and the trend in all of these new forms of writing to move away from the grammar of the mode of writing to the grammar of the mode of speaking. Then there's the deep paradox of the 'semantic web' in which images, sound and text are only discoverable if they are labelled. The semantic web of the presently emerging internet is built on a kind of multimodal grammar ('structural and semantic markup', semantic schemas or ontologies) by way of running commentary on the images, sound and writing it labels (Cope and Kalantzis, 2004). Which ever way we look, written language is not going away. It just becoming more closely intertwined with the other modes, and in some respects itself becoming more like them. The trend to multimodality we predicted ten years ago has been confirmed, even if the specifics of the changes, and the intensity and speed of change, were inconceivable.

The 'How' of Multiliteracies

Meanwhile, what's happening in schools? What have we been doing differently in literacy teaching over the past ten years? One kind of answer is, depressingly, not much. There's a deadening institutional inertia in schools and their disciplines, in the heritage physical architecture of school buildings and the institutional architecture of educational bureaucracy. Another kind of answer has been to go 'back to the basics', a move in which conservative activists have in many places succeeded to reverse the slow march of progressivist curriculum reform over course of the twentieth century, reform that had started with the influence of educationists like Dewey and Montessori from that century's beginning. A third kind of answer is to move forward, to redesign pedagogy for our changing times. The experimental practices of a pedagogy of Multiliteracies have been one such attempt to move forward.

The 'back to the basics' movement has had considerable success in taking education back over the past decade to what appears, in the retrospective view of its advocates, to be the halcyon days of traditional schooling. One mark of its success has been the imposition of high stakes standardised testing in which the school undertakes, once again, the process of social sifting and sorting against a singular and supposedly universal measure of basic skills and knowledge. Another sign of the success of this movement is the return to didactic, skill and drill curriculum which jams content knowledge to fit the tests.

In literacy, the skill and drill regime starts with phonics. There's something in sound-to-letter correspondence, but not enough to warrant its fetishisation by the back-to-basics people as one of the keys to literacy. When they come to write in English, children encounter forty-four sounds and the twenty-six letters which represent these sounds. Meanwhile, in the motivating spaces of contemporary child culture (such as Pokémon or video games), children quickly master immensely more complex systems without instruction by a teacher (Gee, 2004a: 9-10). The horizons of phonics are set so low and the results so easy to measure, that it's not hard to show improved results, even amongst children who come from communities and cultures which historically have not achieved at school.

Then comes the 'fourth grade slump' where the test results return to form (Gee, 2004a: 18-19). The problem is that writing is not a transliteration of speech, as the phonics people simplistically imply. It is a different mode with a significantly different grammar (Kress, 2003: 27-34, 125-7). Some kinds of learners seem to 'get it'; others don't. The more academic modes of written language make intuitive sense to some but not others. Some can relate to the distinctive forms of written language as a cultural move—being a scientist and writing like one, or being an author and writing like one. Learning to write is about forming an identity; some learners can comfortably work their way into that identity and others can not, and the difference is to do with social class and community background. In the long run, phonics fails to achieve this and thus fails learners who do not come from cultures of writing. Perhaps these learners may have been able to extend their repertoires into the mode of writing and its cultures if the starting point had been other modes and the entry points to literacy were activities of synaesthesia that are more intellectually stimulating and motivating than sound-letter correspondences? Perhaps a pedagogy which built on the multifarious subjectivities of learners might work better than drilling to distraction the ones who don't immediately 'get' the culture of writing?

Meanwhile, we are supposed to be creating learners for the knowledge economy, for new workplaces which place a premium on creativity and self-motivation, for

citizenship which devolves regulatory responsibility to many layers of self-governing community, and for an everyday lifeworld in which the balance of agency has shifted towards users, customers and meaning-makers and in which diversity (not measurable uniformity) prevails. Just as the Iraq war may have increased the global incidence of terror in the name of a War on Terror, so the 'back to basics' people in education may be misreading entirely what society needs from education, even from the most conservative, systems-bolstering point of view. They might, in short, be wrong.

If there's method in the apparent madness, it may be that 'back to the basics' is education on the cheap in the era of neoliberalism (Apple, 2006). The powers that be have no intention of matching all the fine political talk about the knowledge society with commensurate additional resourcing for education. Phonics and tests are all the political system and the electorate wants to pay for, and quality, high end education which moves beyond the horizons of didactic, mass production, uniform, easy-to-measure teaching is something the user will have to pay for. Anything more than the basics is only for those who can afford it. This is a bleak scenario, indeed, and it seems a politically wiser strategy to try to take system promises about things like the knowledge society, at their word.

Didactic teaching promotes mimesis—the transmission and acquisition of the rules of literacy, for instance. Teaching is a process of transmission. Cultural stability and uniformity are the results. Building by contrast on its notions of design and meaning-as-transformation, a pedagogy of Multiliteracies is characteristically transformative. Transformative curriculum recognises that the process of designing redesigns the designer (Kalantzis, 2006a). Learning is a process of self-re-creation. Cultural dynamism and diversity are the results.

Such a transformative pedagogy is, we would argue, based both on a realistic view of contemporary society (how does schooling offer cultural and material access to its institutions of power?) and on an emancipatory view of possible paths to improvement in our human futures (how can we make a better, more equal, less humanly and environmentally damaging world?). Or, insofar as these two goals might at times be at odds, a transformative pedagogy could be used to support either view. Then, it is up to the learner to make of the pedagogy what they will, be that a sensible conservatism (sensible for being realistic about the contemporary forces of technology, globalisation and cultural change) or an emancipatory view which wants to make a future that is different to the present by addressing its crises of poverty, environment, cultural difference and existential meaning (Kalantzis, 2006b).

The transformative pedagogy of Multiliteracies identifies four major dimensions of pedagogy which we originally called Situated Practice, Overt Instruction, Critical Framing and Transformed Practice. In applying these ideas to curriculum realities over the past decade, we have reframed these ideas somewhat and translated them into the more immediately recognisable pedagogical acts or 'knowledge processes' of 'Experiencing', 'Conceptualising', 'Analysing' and 'Applying' (Kalantzis and Cope, 2005). And we have come to characterise the process of moving backwards and forward across and between these different pedagogical moves as 'weaving' (Luke et al., 2003):

- *Experiencing:* Human cognition is situated. It is contextual. Meanings are grounded in real world of patterns of experience, action and subjective interest (Gee, 2004b; Gee, 2006). One of the pedagogical 'weavings' is between school learning and the practical out-of-school experiences of learners. Another is between familiar and unfamiliar texts and experiences. These kinds of cross-connections between school and the rest of life are 'cultural weavings' (Cazden,

2006a; Luke et al., 2003). Experiencing takes two forms. 'Experiencing the Known' involves or reflecting on our own experiences, interests, perspectives, familiar forms of expression and ways of representing the world in one's own understanding. In this regard, learners bring their own, invariably diverse knowledge, experiences, interests and life-texts to the learning situation. 'Experiencing the New' entails observing or reading the unfamiliar, immersion in new situations and texts, reading new texts or collecting new data. Learners are exposed to new information, experiences and texts, but only within zone of intelligibility and safety, sufficiently close to their own lifeworlds to be at least half meaningful in the first instance, yet potentially transformative insofar as the weaving between the known and the new takes the learner into new domains of action and meaning (Kalantzis and Cope, 2005).

- *Conceptualising:* Specialised, disciplinary and deep knowledges based on the finely tuned distinctions of concept and theory typical of those developed by expert communities of practice. Conceptualising is not mere a matter of teacherly or textbook telling based on legacy academic disciplines, but a knowledge process in which the learners become active conceptualisers, making the tacit explicit and generalising from the particular. 'Conceptualising by Naming' involves or drawing distinctions of similarity and difference, categorising and naming. Here, learners give abstract names to things and develop concepts (Vygotsky, 1962). And 'Conceptualising with Theory' means making generalisations and putting the key terms together into interpretative frameworks. Learners build mental models, abstract frameworks and transferable disciplinary schemas. In the same pedagogical territory, didactic pedagogy, would lay out disciplinary schemas for the learners to acquire (the rules of literacy, the laws of physics and the like). Conceptualising requires that learners be active concept and theory-makers. It also requires weaving between the experiential and the conceptual (Kalantzis and Cope, 2005). This kind of weaving is primarily cognitive, between Vygotsky's world of everyday or spontaneous knowledge and the world of science or systematic concepts, or between the Piaget's concrete and abstract thinking (Cazden, 2006a).

- *Analysing:* Powerful learning also entails a certain kind of critical capacity. 'Critical' can mean two things in a pedagogical context—to be functionally analytical or to be evaluative with respect to relationships of power (Cazden, 2006a). Analysing involves both of these kinds of knowledge processes. 'Analysing Functionally' includes processes of reasoning, drawing inferential and deductive conclusions, establishing functional relations such as between cause and effect and analysing logical and textual connections. Learners explore causes and effects, develop chains of reasoning and explain patterns in text. And 'Analysing Critically' (that is, more critically than functionally) involves evaluation of your own and other people's perspectives, interests and motives. In these knowledge processes, learners interrogate the interests behind a meaning or an action, and their own processes of thinking (Kalantzis and Cope, 2005). This critical kind of weaving works bi-directionally between known and new experiences, and between prior and new conceptualisations (Cazden, 2006a).

- *Applying:* 'Applying Appropriately' entails the application of knowledge and understandings to the complex diversity of real world situations and testing their validity. By these means, learners do something in predictable and expected way in a 'real world' situation or a situation that simulates the 'real world'. And

'Applying Creatively' involves making an intervention in the world which is truly innovative and creative and which brings to bear the learner's interests, experiences and aspirations. This is a process of making the world anew with fresh and creative forms of action and perception. Now learners do something that expresses or affects the world in new way, or that transfers their previous knowledge into a new setting (Kalantzis and Cope, 2005). This weaving can take many forms, bringing new experiential, conceptual or critical knowledge back to bear on the experiential world.

These pedagogical orientations or knowledge processes are not a pedagogy in the singular or a sequence-to-be-followed. Rather they are a map of the range of pedagogical moves which may prompt teachers to extend their pedagogical repertoires. Didactic teaching emphasises the overt instruction of conceptual, disciplinary schemas at the expense of other pedagogical orientations. Progressivisms which focus on grounded learner activity locate themselves in experiential activities and often at the expense of deep conceptual work. Transformative pedagogy adds analysis and application to the mix.

In the last decade, there has been increasing recognition of the need to integrate the first two of the pedagogical processes identified in the Multiliteracies schema, Experiencing and Conceptualising. At least in many English-medium countries, the 'reading wars' between 'phonics' and 'whole language' have been replaced by an emphasis on 'balanced literacy'—even though perhaps replaced more in rhetoric than in practice in every classroom. But the critical literacy implied by Analysing has had less uptake in either of its meanings, perhaps because of its latent possibility of arousing controversies. Applying in the sense of Transformed Practice has faced greater barriers. Paradoxically, in many countries, the arguments for educational reform that rest on fears of economic competition lead to programmatic statements about the importance of fostering entrepreneurship, creativity, problem-posing as well as problem-solving—all forms of Applying in a properly transformative sense. But intervening to effect such changes requires overcoming school's notorious resistance to change, and overcoming the more specific problem of opening up entrenched didactic teaching practices, in some contexts exacerbated by large class sizes. In such cases, any opening up must not to simply be to didactic teaching's opposite, a 'progressive' over-reliance on Experiencing, but to a repertoire of the four learning processes for students and complementary teaching strategies for teachers.

Using the heuristic of the different pedagogical orientations to reflect on their practice, teachers may find themselves to have been unreflectively caught in the rut of one or just a few of the knowledge processes, or in knowledge processes that do not in practice align with the stated goals of learning. It is useful to be able to unpack the range of possible knowledge processes in order to decide and justify what's appropriate for a subject or a learner, to track learner inputs and outputs, and in order to extend the pedagogical repertoires of teachers and the knowledge repertoires of learners (Kalantzis and Cope, 2006b). A pedagogy of Multiliteracies suggests a broader range of knowledge processes be used, and that more powerful learning arises from weaving between different knowledge processes in an explicit and purposeful way.

A pedagogy of Multiliteracies also opens access to powerful learning to a broader spread of learners in a world where diversity is becoming all the more critical. The old learning of the command society could at least try to get away with a one-size-fits all approach. But as soon as agency is rebalanced and we have to take learner subjectivities into account, we encounter a panoply of human differences which we

simply can't ignore any longer—material (class, locale), corporeal (race, gender, sexuality, dis/ability) and circumstantial (culture, religion, life experience, interest, affinity). In fact, not dealing with difference means exclusion of those who don't fit the norm. It means ineffectiveness, inefficiencies and thus wasted resources in a form of teaching which does not engage with each and every learner in a way that will optimise their performance outcomes. It even cheats the learners who happen to do well—those whose favoured orientation to learning the one-size-suits all curriculum appears to suit—by limiting their exposure to the cosmopolitan experience of cultural and epistemological differences so integral to the contemporary world (Kalantzis, 2006b).

A pedagogy of Multiliteracies allows alternative starting points for learning (what the learner perceives to be worth learning, what engages the particularities of their identity). It allows for alternative forms of engagement (the varied experiences that need to be brought to bear on the learning, the different conceptual bents of learners, the different analytical perspectives the learner may have on the nature of cause, effect and human interest, and the different settings in which they may apply or enact their knowledge). It allows for divergent learning orientations (preferences, for instance, for particular emphases in knowledge making and patterns of engagement). It allows for different modalities in meaning making, embracing alternative expressive potentials for different learners and promoting synaesthesia as a learning strategy. And it reflects a rebalancing of agency in the recognition of active 'design' and inherent learning potentials in the representational process: every meaning draws on resources of the already designed world of representation; each meaning maker designs the world afresh in a way which is always uniquely transformative of found meanings; and then leaves a representational trace to be found by others and transformed once again (Cope and Kalantzis, 2000a). Finally, a transformative pedagogy allows for alternative pathways and comparable destination points in learning (Kalantzis and Cope, 2004; Kalantzis and Cope, 2005). The measure of success of transformative pedagogy is equally high performance learning outcomes which can produce comparable social effects for learners in terms of material rewards and socially ascribed status (Kalantzis, 2006a).

Pedagogical Orientations - 1996 Formulation	*Knowledge Processes - 2006 Reformulation*
Situated Practice	Experiencing ... the Known ... the New
Overt Instruction	Conceptualising ... by Naming ... with Theory
Critical Framing	Analysing ... Functionally ... Critically
Transformed Practice	Applying ... Appropriately ... Creatively

Multiliteracies in Practice

This updated and revised restatement Multiliteracies agenda is grounded in ten years of practical intervention, research and theoretical work. It remains to mention some of this work briefly, first amongst the members of the New London Group and then others who have worked with us, or the ideas, over the decade.

Courtney Cazden has reissued her now-classic book, 'Classroom Discourse' with a new edition (Cazden, 2001). Although she kept its original subtitle, 'The Language of Teaching and Learning', she did consider changing it to 'The Drama of Teaching and Learning with Speaking Parts for All', emphasising the shift in the balance of agency in learning from the classroom dominated by teacher talk to one which is more dialogical. Her other work over the past ten years has covered the areas of multilingualism (Cazden, 2002b), technology in the service of indigenous language revitalization (Cazden, 2002a; Ismail and Cazden, 2005), multi-modal classroom discourse (Cazden and Beck, 2003) and alternative pedagogies (Cazden, 2000; Cazden, 2006a; Cazden, 2006c). In 2003-2005, she worked for two months each year in with Allan Like at the National Institute of Education in Singapore, and much of her recent work is based directly or indirectly on that experience (Cazden, 2006b; Luke et al., 2003).

Norman Fairclough went on to extend his contribution to the Multiliteracies project be developing perspectives on discourse and intertextuality (Fairclough, 2000). He subsequently published a new edition of his much used book, 'Language and Power' (Fairclough, 2001) and a book on discourse in late modernity (Chouliaraki and Fairclough, 2000). He is currently writing a book on language and war.

James Gee has continued his fundamental work on discourse and the nature of literacy (Gee, 1996). He has also investigated the changing shape of 'new capitalist' workplaces (Gee et al., 1996) and contemporary identities (Gee, 2000; Gee, 2001; Gee, 2002). In 2001, he started analysing video games and has since become a leading researcher and thinker in this field. His contention is that video games embody a more cogent and powerful understanding of the nature of learning than is in evidence in most classrooms. Consistent with the Multiliteracies pedagogy, they are deeply multimodal, engage users as designers of meaning and use a broad range of learning processes (Gee, 2003; Gee, 2005). Based in this research he has developed a critique of traditional schooling and a theory of learning appropriate to today's learners and contemporary times (Gee, 2004a; Gee, 2004b; Gee, 2006).

Kalantzis and Cope have extended their earlier work on changing workplaces (Cope and Kalantzis, 1997; Kalantzis, 2004a), changing citizenship (Cope and Kalantzis, 2000b; Kalantzis, 2000) and changing information and communications technologies (Cope and Kalantzis, 2003; Cope and Kalantzis, 2004; Kalantzis, 2004b), exploring the implications of these changes for literacy teaching. More recently, they have focused on the microdynamics of pedagogy, or the range of pedagogical moves teachers make. Refining and extending the Multiliteracies pedagogy, their 'Learning by Design' project has involved clusters of teachers piloting a web-based system for documenting their pedagogy and sharing this with learners and other teachers (Kalantzis and Cope, 2004; Kalantzis and Cope, 2005). They have also continued to engage in the broader debates about the role of education, directly in a political sense while Mary was President of the Australian Council of Deans of Education (Kalantzis and Cope, 2001b), and intellectually in the development of a vision of the shape of a 'new learning' which moves beyond the constraints and inadequacies of traditional schooling (Kalantzis, 2006a; Kalantzis, 2006b; Kalantzis and Cope, 2006a).

Gunther Kress has further developed his work on the grammar of images (Kress and van Leeuwen, 1996) and the theory of multimodality (Kress, 2000b). He has made a strong case that the new media entail a fundamental shift in the communications environment, a shift in media encapsulated by the shift from book to

screen and a shift in modes in which the mode of the visual is becoming relatively more significant, and the mode of writing less. The implications for learning are enormous, and the question of learning in these changing environments is for him a major preoccupation. In a series of research projects, on Science and on English Classrooms, he has examined how a Multiliteracies approach helps us understand teaching, curriculum, knowledge and pedagogy differently. In these projects, as in some other recent writing, he asks what counts for 'literacy' in schools, and about the deeper question of the development of new kinds of imagination and forms of creativity as a result of theses changing resources and practices. (Kress, 1993; Kress, 1997; Kress, 2001; Kress, 2003). He also highlights the transformative nature of representation and the role of agency in both meaning making and learning (Kress, 2000a).

Allan Luke has been involved in practical pedagogical intervention, large scale research and theoretical reflection over the past ten years. He became Deputy Director General of a large public education system in Australia, the Queensland Department of Education. There he developed the much-acclaimed 'literate futures' policy and 'new basics' program, the first formal attempt to implement multiliteracies across an education system. Multiliteracies has been 'mandated' for all schools in Queensland and built into the syllabus (Luke, 2002a; Luke, 2005a; Luke, 2005b; Luke et al., 2000; Luke et al., 1999). He subsequently moved to Singapore where he undertook a hugely comprehensive and finely detailed analysis of the pedagogical practices of Singapore teachers (Luke et al., 2003). Meanwhile, his theoretical work has developed apace and a new focal point created for the discussion of innovative practices of learning with the founding of the journal, 'Pedagogies' (Luke, 2004; Luke, 2006a).

Carmen Luke has continued her work on feminist issues in education and critical media literacy (Luke, 2003a; Luke, 2003b) with a focus on 'new' and 'old' media (Luke, 2002b; Luke, 2005d), media convergence, and the links between cultural globalisation and new technologies (Luke, 2006b). She has expanded her research on e-technologies and schooling (Luke, 2000; Luke, 2005d) to include higher education: the links between new ICTs, the shift toward privatisation of public knowledge and globalisation of higher education (Luke, 2005c).

Sarah Michaels has, with Richard Sohmer, worked to document the learning processes in an after-school program for at-risk middle school students in science that embodies the principles of a pedagogy of Multiliteracies. This work shows in great detail how the different facets of a Multiliteracies practice, taken together, support students to take on new ways with words, new cognitive tools and new academic identities (Michaels and Sohmer, 2000; Michaels and Sohmer, 2002). They have also developed with the Institute for Learning at the University of Pittsburgh a program of 'accountable talk' used by districts throughout the United States, from Los Angeles Unified to the South Bronx of New York (Michaels et al., 2002). The aim of this work is to help teachers orchestrate rigorous, coherent, and equitable classroom talk. Michaels and Sohmer argue that we must go beyond describing and appreciating non-standard 'designs' in students from non-mainstream families and find ways to recruit and harness these designs, in practice, as intellectual resources (Michaels, 2005; Michaels et al., 2005; Sohmer and Michaels, 2002).

Finally, Martin Nakata's research on indigenous literacy has used the Multiliteracies concept to discuss literacy in 'interface' identities, or learners living between the 'mainstream' and the 'margins' (Nakata, 2000; Nakata, 2001).

A number of groups of educators have also developed systematic interventions and research programs around Multiliteracies. We will mention just three groups here:

Denise Newfield and Pippa Stein at the University of the Witwatersrand, South Africa; Eleni Karantzola and Evangelos Intzidis at the University of the Aegean, Greece; and Ambigapathy Pandian and Shanthi Balraj at the Universiti Sains Malaysia, Penang, Malaysia.

Newfield and Stein's work began with the launching of the MA in English Education at the University of the Witwatersrand in 1997, in which the then-recently published 'Multiliteracies' article was prescribed. The Multiliteracies framework soon became an anchor for the students' work. In the ensuing years, the Multiliteracies pedagogy assumed an ever more central place in preservice and inservice teacher education courses at the University of the Witwatersrand. Members of the research team began implementing the pedagogy in a range of educational contexts, at primary, high school and tertiary levels, in English literacy, language and literature classrooms, in science, art and visual literacy classrooms—both in well- and under-resourced contexts. Teachers were excited by their pedagogic experiments, and would meet regularly to discuss and display what learners were producing under the influence of the new pedagogy.

Multiliteracies, Newfield and Stein report, has been taken up and extended in South Africa in powerful ways, focusing on identity work in relation to the apartheid past, and in relation to human rights, diversity, multilingualism and multiple epistemologies. The ever-expanding group has worked with indigenous knowledge systems, cultural practices and languages, within a critical framework that takes account also of school and global literacies. Marion Drew and Kathleen Wemmer's work with first year audiology students had the students studying textbooks and visiting local sangomas (traditional doctors). Joni Brenner and David Andrew based their class assignments for visual literacy students on local craft forms, such as the Minceka, a traditional cloth worn by women in Limpopo Province. Tshidi Mamabolo's foundation students at Olifantsvlei Primary School made dolls based on traditional South African fertility figures in their literacy classroom. Robert Maungedzo's disaffected high school students moved from a position of refusal to unstoppable creativity, engaging in a range of semiotic activity from cloth making and praising in indigenous languages to writing stories and poems in English. The students produced powerful hybrid, syncretic texts that speak of themselves as 'new South Africans', and which reflect on themselves in relation to past, present and future. This has been a project of giving voice to the marginalised and dispossessed, and extending the semiotic repertoire of the already voiced.

For Newfield, Stein and their group, the Multiliteracies agenda has spoken to the post-apartheid historical moment in South Africa, with its progressive and democratic constitution and revised national curriculum. It cohered with and helped give shape to emerging curricular principles, such as democratic practice, multilingualism, multiculturalism and notions pertaining to textual multiplicity. South African educators and academics took it up and inflected it in powerful ways that expressed the particularities of South Africa in the post-94 decade of freedom and democracy (Newfield, 2005; Newfield and Stein, 2000; Newfield et al., 2001; Stein, 2003; Stein and Newfield, 2002a; Stein and Newfield, 2002b; Stein and Newfield, 2003). In recognition to the enormous interest in the Multiliteracies work in South Africa, the International Conference on Learning is to be held in Johannesburg at the University of the Witwatersrand in 2007.

The Multiliteracies notion was introduced to Greece with a number of presentations from 1997 by Mary Kalantzis at conferences and teacher training programs initiated by Gella Varnava-Skoura at the University of Athens and Tassos

Christidis at the Centre for the Greek Language at the University of Thessaloniki. Building on these relationships, the International Conference on Learning was subsequently held in Spetses, Greece in July 2001 (Kalantzis and Cope, 2000a; Kalantzis and Cope, 2001a).

Karantzola and Intzidis began research work in 1997 on the design of multimodal meaning in curriculum resources used in Greek compulsory education (Karantzola and Intzidis, 2001a). They went on to examine the implementation of Multiliteracies pedagogy across the curriculum, with a particular emphasis on teaching science in secondary education (Karantzola and Intzidis, 2000; Karantzola and Intzidis, 2001b).

In a project lasting from 1997 to 2000, Karantzola and Intzidis implemented Multiliteracies theory to develop an alternative language curriculum for 'night high schools' and 'second chance schools'. Amongst the products of this initiative were collaboratively produced newspapers at each school. In 2000, this work won the first prize in the Hellenic Ministry of Education and Religious Affairs National Competition for Innovation. From this, they went on in a joint project with Mary Kalantzis to assist in the redevelopment of Greece's adult education system for the General Secretariat for Adult Education in the Hellenic Ministry of Education and Religious Affairs. This work has ranged from giving shape to the overall policy framework for adult education in Greece, to the implementation of Multiliteracies pedagogy in adult education centres across the country (Karantzola et al., 2004a; Karantzola et al., 2004b). Most recently, Karantzola and Intzidis have been involved in the establishment of the Literacy Research Network at the University of the Aegean in order to provide a research focus in the field of adult education and to provide a focal point in the struggle against social exclusion by promoting lifelong learning to general population. Finally, a Greek language edition of the Routledge 'Multiliteracies' book is forthcoming, with additional Greek case studies by Karantzola and Intzidis.

In Malaysia, Pandian and Balraj were attracted to the Multiliteracies pedagogy from the perspective of their multi-lingual, multi-ethnic and multi-religious setting, together with dramatic developments in the use of information and communication technologies in Malaysia. These technologies were being promoted as indispensable tools for individuals to lead their learning, economic and social life in the changing times. In this context, the Multiliteracies framework advanced by the New London Group offered a useful viewpoint for thinking about the provision of education that would equip students with the knowledge and skills necessary to be active and informed citizens and workers in a changing world—a world of diversity and a world in which our means of communication and access to information are changing rapidly. The Multiliteracies research in Malaysia began in 1997, and in 1999 the International Learning Conference brought key members of the original New London Group to Penang. From this the International Literacy Research Unit was created, formalising the relationships and developing the basis of an international research program (Kalantzis and Cope, 1999; Kalantzis and Pandian, 2001; Pandian, 1999; Pandian, 2001; Pandian, 2003; Pandian, 2004a; Pandian, 2004b). The research has covered two major areas: the teaching of English in Malaysia, and, more recently, the 'Learning by Design' pedagogy, based on the four 'pedagogical orientations' proposed by the New London Group. The Learning by Design work has involved teachers and students producing dynamic and exciting multimodal texts, closely related to their own communities and life experiences, whilst at the same time extending their communicative repertoires (Pandian and Balraj, 2005).

Ten years later, an enormous body of work has emerged around the notion of Multiliteracies. Although the changes of the past decade have been huge, we have found that the core concepts developed mid nineties have stood the test of time. In this restatement, we have refined and reformulated the original concepts in the light of subsequent events, further research and trialing of the key ideas in educational practice. There has been both intellectual continuity and change in the development of a pedagogy of Multiliteracies over the past decade. After all, some significant degree of change is what we would expect when we hold to a theory of representation in which transformation is fundamental and stability in the forms of meaning is almost invariably an illusion.

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