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ABSTRACT

This first of three volumes of the 1992 Australian Council for Adult Literacy (ACAL) Conference Papers includes 10 papers from the plenary and keynote sessions. The theme of "When Basic Skills and Information Processing Just Aren't Enough: Rethinking Reading in New Times" (Allan Luke) is the moral and political consequences of ways of reading. "Therapeutic Relief to the Psycho-Sexual Congested Conference Delegate...at a Price" (Mary Hartmann) is a tongue-in-cheek invitation to the speaker's clinics for literacy professionals who are feeling the pressure of their jobs. "Literacy Practices and the Construction of Personhood" (Brian Street) focuses on the implications for pedagogy of approaching literacy and the construction of personhood from an anthropological viewpoint. "Assembling Reading and Writing: How Institutions Construct Literate Competencies" (Peter Freebody) provides examples of the developing perspective of literacy practices socially and institutionally embedded. "Being Numerate: Whose Right? Who's Left?" (Sue Willis) explores the continuing demands that levels of numeracy must be raised and the argument that mathematics is deeply implicated in social inequality. "Address to the ACAL Forum" (Paul Brock) reviews adult English language and literacy provision currently offered by the community-based education sector. "From Now to the Year 2000" (Ann Whyte) considers developments in adult and community education. "Community Literacy" (Kay Schofield) addresses community provision of literacy training. "'New Times' and Literacies that Matter" (Colin Lankshear) uses a sociological analysis of current economic and social trends within developed countries to review the main forms of literacy requirements. "Removing Cultural Barriers to Numeracy" (Alan Bishop) looks at numeracy as culturally based and socially situated knowledge. (YLB)

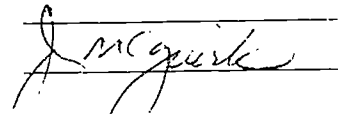
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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

The Right to Literacy
• The Rhetoric • The Romance • The Reality

1992 National Conference
University of Sydney
9 - 11 October 1992

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Vol. 1

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ACAL Conference Papers

Volume 1 1991

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Foreword

The 1992 ACAL conference, held at Sydney University in October 1992, was a great success. 500 people, from Australia and overseas, attended the conference which was acclaimed for its smooth organisation and stimulating content.

This volume, number 1, of the 1992 ACAL Conference Papers includes papers from the plenary and keynote sessions.

Volume 2 of the conference papers will include papers from workshops, with a national focus.

Volume 3, a special edition of *Literacy and Numeracy Exchange*, includes papers from workshops with a more local NSW focus.

I would like to thank Simon Emsley, Jeannette Thiering, Magnhild Nordland, Carol Walsh, Pam Osmond, Inara Walden and Phuong Tran who all contributed in various ways to the production of these papers. Thanks also to David Sless, Communication Research Institute, for design and layout ideas. (David has a paper appearing in volume 2.)

Acknowledgements are also made to the Australian Language and Literacy Policy (NSW) who provided funding assistance for the production of these papers.

I am sure that the papers will provide thought provoking and interesting reading.

Jenny McGuirk

June 1993

NSW Adult Literacy and Numeracy Council Inc.

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When basic skills and information processing just aren't enough: rethinking reading in new times

A.J.A. Nelson Address Australian Council for Adult Literacy 1992 National Conference, 9 October, 1992, Sydney

Allan Luke

James Cook University of North Queensland

Introduction

In 1914, Edmund Burke Huey, the first US reading psychologist, argued that in learning to read the child reader retraced and recovered the footsteps of 'the' culture. His metaphor was a product of the evolutionary theories of his age, depicting the child's individual development (i.e., ontogenesis) as paralleling and catching up with that of the larger dominant culture (i.e., phylogenesis). To this day, psychological theories of Piaget and Kohlberg, Habermas and Vygotsky are built on a similar conceptualisation of the relationship between individual cognitive development' and the linear 'progress' of culture. But central to Huey's position was a stress on reading as a form of moral formation and regulation. Huey, like many of his American contemporaries, had been strongly influenced by colonial Protestantism: hence, in the midst of his drive to apply experimental approaches to the physiology of reading, he retained a belief that reading was and should be tied up with learning the values and ways of a culture. This is my theme today: the moral and political consequences of ways of reading. My argument is that reading instruction is not about skills but is about the construction of identity and social relations, and that, in light of the new workplace relations and citizenship of late capitalist society, we can and should shape it differently in current Adult Basic Education and English as a Second Language contexts. To do so, I argue, requires that we teach and practise a critical literacy, one not only based on theories of language and discourse but, more importantly, a sociological vision of work, social institutions and social change in the next century.

Huey died shortly after writing his Psychology and Pedagogy of Reading (1914), after turning away from his focus on reading to the dubious enterprise of intelligence testing. But in many ways his work opened Pandora's Box: it was extended, interpreted and applied by behaviourist psychologists Thorndike and later, Gray, Gates and others to build a psychological model of reading which fit industrial era US educational policy. The residual traditions of those models, the construction of reading as behaviour, skill and, now, information processing, still form the heart of current reading instruction, both in schools and in adult programs. In its short, 100 - year history as a focus of psychological research and curricular development, reading has changed drastically from a means of communication with divinity and a means for moral development, to reading as behavioural skills, to reading as deep linguistic processing and "a psycholinguistic guessing game", to reading as vocational competence. Of course different 'schools of thought' about reading get run together in common sense and current definitions. The Australian Adult Literacy and Numeracy Competency Scales (Griffin & Forwood, 1991, p.48) list the following competences under "D: Understanding of Familiar Contexts": "Recounts content, events and characters of a short text or instructions written in a clear time sequence. Reads often.... Reads and interprets most short novels; work related reports, simple safety notices, newsletters and notices". There are serious categorical and theoretical problems in such classifications of literacy that bear further debate and analysis, in this case psychologically based assessment tasks (e.g., "recounts content") are mixed with everyday habits (e.g., "reads often"), with descriptions of specialised text types. But a critique of such competency scales is not my focus today. My concern here is with the version of the social order, the vision of institutional life implicit in recent adult education curricula, syllabus materials, skills profiles and so forth. Looking over current and recent reports on "key competences", "audits", "profiles" and "generic skills" in Australian adult education, one could be forgiven for thinking that we inhabit a world of literal language users: that the domains of everyday institutional life are conflict free places of robotic consensus; where nonfiction workplace texts are, more or less, clear and unambiguous; where readers and writers go about their work each day reading, quite literally recalling and doing as texts tell them, telling and writing truths, responding

"acceptably", "efficiently", "appropriately", and, as the ALAN scales remind us, "often". Such approaches to reading assume that one can and should 'read the truth' in the memorandum posted on the notice board, the commercial or political flyer handed out on the streets, and 'tell the truth' on the job form. Such approaches assume that occupational literacy is a simple matter of recognition and compliance. Functional reading, as it is defined in most current scales and recent reports, is conceived of as a non-problematic instrumental activity. By these accounts, it entails simple, straightforward basic skills of information processing and assembly which, once possessed, can be deployed automatically and efficiently. These definitions tend to assume that, for instance, the job instructions one encounters are economical, effective and yield optimal results; that, for instance, the instruction sheet that goes with a particular appliance is accurate and correct. They assume that the extant power relations in the workplace which such texts represent are not only fair and explicit, but as well that such power relations are the most efficient, effective, and indeed, 'clever'.

In the rush of enthusiasm for national profiles, scales, curricula, benchmarks, it is imperative that we ask: Is this the literacy of New Times? Will this vision of "discursive work" (McComack, 1991) transform work sites into competitive workplaces which engage workers constructively in globally competitive production, quality control and workplace democracy? At first glance, it looks to me largely like the industrial workplace of old, the one that got us and other OECD countries into trouble in the first place where compliance, where holding one's tongue, where "minding one's P's and Q's" (Bourdieu, 1991) is the premium. It assumes that speedy compliance is the way towards productivity, workplace efficiency, and so forth. If this is the 'clever society', then cleverness in many competency statements is rule recognition and acceptance of extant texts, genres and discourses.

My proposition here is simple: that there are no universal 'skills' of reading. Reading is a social practice, comprised of interpretive rules and events constructed and learned in institutions like schools and churches, families and workplaces. Implicit in ways of teaching reading are social theories, models of the social order, social power and social change, models of the institutional everyday life, models of worker/employee relations and,

ultimately, models of how the literate worker and citizen should look and be. Simply put, reading instruction has always described and prescribed forms of life: of how Dick, Jane and Spot should be and act as citizens and readers, and indeed of how migrants and workers should be and act as citizens and readers. In this sense, reading is never a 'foregone', consensual or harmless conclusion, any more than living and participating in those institutions are foregone, consensual and or harmless conclusions. Are workplaces, families, public administration and other institutions models of consensus and agreement? I think not. As Game and Pringle (1983) have argued, just as changes in technology and workplace relations run hand in hand with changing systems of patriarchy and domination, they can be contested, rebuilt and remade. What I'm suggesting here is that how programs construct 'reading' and 'literacy' in the workplace depends on sociological explanations of how institutions work, of how power works, of how particular groups and classes of workers and citizens use written and spoken language in the workplace. Literate in whose interests? To what ends? What kinds of readings and readers? These key questions are on the table in current curricula and study programs, buried in terms like 'acceptable', 'appropriate' and 'effective' reading. My argument today proceeds in two steps. I begin with examples from the history of reading, showing the moral and political regulation of reading pedagogy and showing how perspectives of the last 100 years continue to influence current agendas, defining and constraining how we see reading. I follow this with a brief summary of how reading instruction is about prescribing a relationship of power between text/reader. I then make the case for a model of reading as social practice which Peter Freebody and I have developed (Freebody & Luke 1990), arguing that this model is suited for making critical readers for the 'New Times' of a globalised economy and PostFordist production.

LESSONS FROM THE HISTORY OF READING

In 19th century colonial countries like Canada and Australia, reading education was constructed along a great divide of class and urban/rural location. Of course, colour and ethnicity were not yet factors insofar as indigenous peoples and slaves were not entitled to education. Most children studied the 3 R's in primary schooling, leaving school after a few years to

enter the rural sector and domestic work. Those who stayed were moved incrementally through matriculation levels towards a literary literacy which introduced them to a classical canon. In a manner similar to current calls for 'minimum competence' for lower socioeconomic students and 'cultural literacy' for elite students (cf. Cope & Kalantzis, 1993), the 19th century model of schooling generated two literacies, and two interpretive communities: those with the 'basics' and those with elite literary competences. Hence, while all began with versions of the British authored Irish Readers, elite White males moved on to a grammar school education which centred on literary study. Whether in Fiji or India, Australia or Canada, the political function of schooling thus was to construct a colonial class system of workers (and, when necessary, soldiers) in agricultural and resource based economies, and an upper class of managers and civil servants with unwavering allegiance to the Mother Country. In so doing, the moral messages of civilised, Christian and gentlemanly conduct were inseparable from instruction in reading and writing.

A similar, if more politically autonomous training developed in the United States. There 3 R's training pivoted around books like Noah Webster's American Spelling Book and the McGuffey Readers, stressing the dangers of Papism, traces of Anglophobia, and the virtues of the Protestant work ethic and the emergent American nation state. The key point I would make about 19th century reading instruction, then, is that it was overtly about shaping and constructing a moral human subject. That construction pivoted around a vision of the social order and where and how different kinds of readers/citizens/workers would figure. Without a psychological theory, prior to the pedagogical invention of oral reading, its regime of skill and drill stressed physical discipline of a literate 'habitus' (cf. Bourdieu, 1991): what counted as reading were basic skills of penmanship, copying, oral recitation and, in advanced study, the imitation and rote recitation of literary and spiritual texts. The significant breakthrough in the redefinition of reading occurred in the United States after the First World War. Then several socioeconomic factors converged to enable and encourage a redefinition of reading as psychological skills. Not least of these factors was the rapid expansion and diversification of the US population, its urban manufacturing and retail base, and, with these changes, the growth and articulation of a

comprehensive 'free' state schooling system. As part of a larger agenda of social engineering, and the application of emergent sciences of efficiency, management and manufacturing to all domains of the social, the state schooling system was redesigned as an industrial factory for the production of literate workers. Unlike the classbased system of 19th century education, industrial era education promised to be fair, equitable, based on 'merit' (hence, meritocracy). These conditions set out a fertile environment for the emergence of educational psychology as the guiding discipline for the reorganisation of schooling and, ultimately, reading (Luke 1988). In this regard, the 'official' regulation and surveillance of literacy training took on the guise of neutral, 'disinterested' scientific practice.

This redefinition of reading in the interwar period had two powerful strands: behaviourism and progressivism. Behaviourist psychology redefined reading as a set of behaviours or skills which could be generated by various textual and instructional stimuli. Psychologists like Thorndike, Gray, Gates set out to taxonomically identify the skills of reading, and to generate standardised reading tests & texts (as 'stimuli') to efficiently transmit and measure these skills. At the same time, Deweyian progressive education lodged reading curricula within project and theme based instruction, stressing civic, community and family activities and values. The results, amalgams of psychological definitions of reading and progressive themes, were series like the Dick and Jane readers, prototypes for the modern basal readers like PM and Endeavour which still are used in many Australian schools. The aim of such programs was the 'total' instructional package which was both 'teacherproof', adaptable to various student clientele regardless of background or nationality, and complete with teachers' guidebooks, standardised tests, progress charts and other adjunct products.

The debate between 'phonics' and 'word recognition' advocates reached a pitch in the 1950s, when Rudolf Flesch's polemic, Why Johnny Can't Read, accused US reading psychologists of aiding and abetting a Moscow based attack on American youth by stressing word recognition approaches to early reading. The great debate over who had the best, most efficient and 'true' psychological model of reading and, relatedly, about whose textbooks, tests and instructional schemes should be bought and used continues to this day.

However, the current manifestation in what we might term 'reading wars' has been between advocates of direct instruction in psychologically defined skills, and those who advocate progressive, holistic approaches to reading. The latter have been strongly influenced by psycholinguistic and cognitive theories which define reading in terms of the construction of meanings. Like the earlier debate between phonics and word advocates, the current debate still is being waged in terms of who has the 'true' psychological, 'intraorganistic' (Halliday, 1978) explanation of reading, and of which model is most 'efficient' at delivering reading competence.

I would argue that the terms of these 'reading wars' have been fundamentally misconstrued (and misrepresented) by the participants. Since the early 20th century turn from overtly ideological approaches to reading, reading experts and state school authorities, supported by governments and industry, have succeeded in 'changing the subject' in redefining reading as psychological skills, in redefining the reader as a skilled worker, and in redefining teaching as the neutral transmission of skills. What these technocratic models of education fail to recognise is that reading always is tied up with the formation of moral values and identities, political ideologies and beliefs, and with the construction and distribution of particular kinds of textual practice, authority and power.

In this light, the cultural limitations and political blindspots of conventional reading instruction are not simply errors of instructional emphasis and timing. Research in the psychology and pedagogy of reading has a long history of shunting normative social and cultural issues to the sidelines of instruction, as subordinate to the acquisition of cognate skills, whether described as 'basic', 'functional', or 'higher order' text processing strategies. These key theoretical and practical omissions are continuing characteristics of cognitive and psycholinguistic approaches to reading. Schema theories of reading, for example, recognise the relationship between structured, culture specific background knowledge that readers bring to texts and the knowledge demands of text. However, such models stop short of recognising how knowledges and texts can be ideological, that is, how particular knowledge structures operate in the interests of social configurations of power (Freebody et al. 1991). In this way, psychological versions of reading tend to privatise and individuate social and cultural

knowledge. Where comprehension and critique are defined as matters of the personal deployment of individualised knowledge resources, a socially critical model of reading is not possible.

READING, POWER AND TEXTUAL AUTHORITY

The foregoing is a story about how reading has evolved and been defined in relation to particular industrial, economic and political agendas. I have drawn principally from work on the North American emergence of progressive and technocratic approaches to literacy; Australian and UK patterns would vary. I have suggested that the 'truth' claims of psychological, linguistic, psycholinguistic and literary theories have not been the central factors in the definition of reading and literacy. Rather the normative agendas of governments and their attendant school systems, class and industrial interests, larger cultural and economic changes, have driven the selection and framing of particular approaches. This is particularly important to bear in mind when 'reading' the politics of literacy and whose interests are involved in, for instance, the most recent enthusiasm for workplace literacy linguistic audits, key competences, and so forth. Whether such models are true' or not have less to do with their ascendancy than the larger political forces vying to shape literacy, literate workers and citizens into the next century. Those of us who build, propose and implement models of literacy training are constrained and enabled by these same politics and power relations. I would here want to draw attention to three aspects of this history:

(1) Even and especially where it has been framed in terms of culturally neutral, universal skills, reading has been used in literate cultures as a way of forming, of shaping up particular kinds of moral and social identities. In effect, there is no 'right way' to read, but rather that differing approaches to reading shape or form up what will count as reading differently from literary recitation, to baseline decoding, from scriptural memorisation to word recognition, to doing job tasks and filling in forms 'effectively'. (2) Tied up with this has been the formation of a 'canon', the sanctioning of particular topics and contents, an ideological field deemed worth reading and writing about.

(3) Reading instruction constructs a relationship between text/reader. This relationship is not one which is 'reflexive' or 'interactional' as described in cognitive and psycholinguistic terms but is a social relationship in which the relative authority/agency of text and reader are shaped; it is, in sum, a relationship of knowledge and power.

Let me take this third point further. When we teach reading we teach relationships of authority, of where texts can be criticised, where they are fallible, where they can be questioned, when, by whom, under what auspices. Recently, AfroAmerican educator Lisa Delpit (1988) has argued that there are codes and rules for what she calls "the culture of power", a culture dominated by particular classes and, we would have to add, ethnic groups and genders. She goes on to argue that explicit knowledge about and access to that culture is prerequisite for power sharing or access and that organic, progressive pedagogies systematically favour mainstream, middle class children. I agree with Delpit's argument. But I would argue that it is mistaken to assume that texts per se are imbued with power. Neither texts nor genres themselves have power. Rather they are sites and capillaries where relations of power are constituted and waged, and these relations are contestable (Foucault, 1977). Power isn't something static that we carry around in our heads; nor is it the intrinsic property of the linguistic features of the text. Power is something which is done, power is in your face. By contestable, I mean this not in a broad revolutionary sense, but rather in terms of everyday struggles and transactions on the shopfloor, in the marketplace, in the office. Relations of power are played out not solely in terms of the wielding of texts as metaphorical swords, between bosses and workers, between supervisors and assistants. Rather, they are part of the complex strategies and tactics of face to face relations in the workplace. As Rob McCormack (in press/1992) recently pointed out, this entails deciding when to speak, when to be silent, when to commit something to print, or when that commission to writing may be used to indict you, your superiors or your co-workers, when to talk behind someone's back. For example, as Game (1989) and Game and Pringle (1983) demonstrate, office work entails relationships of gendered power, subordination and an entire sexual economy. What I am suggesting is that there is more at stake in work than recognising a genre, having a conscious grasp of its textual

characteristics, and then deploying it or deciphering it. What is entailed in strategic literate practice is not only the mastery of linguistic rules and competences to construct a meaningful spoken and written text but the 'reading' of a set of social rules to decide whether to construct it at all, whether the institution and event are worth participating with, contesting, ignoring, dismissing with humour and so forth (deCastell et al. 1986). Let me try to translate this into the issue of reading in adult education and ESL programs. If power is relational, and students learn in reading instruction a social relationship with the text, then reading instruction fixes a set of relational possibilities and constraints on what practices can be done with the text. In those conventional programs that stress so-called 'lower order' reading skills, or even those programs which stress so-called 'higher order' comprehension skills, the meaning of the text goes uncontested and unchallenged. Quite simply, where reading is conceived of as basic skills whether decoding, word recognition, recall, or even as 'meaning making', pragmatic questions about the strategic place and use of the text in a context of situation tend to be subordinated; and critical questions about the veracity, validity and authority of the text tend to be silenced. As an alternative, I would argue for a model of reading that enables one not only to decode and construct messages, but which makes explicit and overt the social relations of power around the text, and places squarely on the table the issue of who is trying, to do what, to whom, with and through the text.

CRITICAL READING IN NEW TIMES: A PROPOSAL

Concepts of critical literacy in reading psychology are theoretically and practically limited. Where it is mentioned, critical reading is taken to refer to 'higher order skills' with text, such as the capacity to make semantic predictions, to infer and construct alternative outcomes and authorial intents, to spot propaganda and bias. In the Handbook of Reading Research 'critical reading' warrants only two comments: Baker and Brown (1984 p.356) observe that in most American reading programs instruction in critical reading is developmentally delayed, and often given little more than token attention in comparison with, for example, the teaching of decoding or recall skills. Although they vary greatly, current approaches construct reading as psycholinguistic and cognitive 'processes' internal to the student

reader. What is omitted from psychological approaches is recognition of two key aspects of reading and texts. First, reading is not a private act but a social practice, not a matter of individual choice or proclivity but of learning the reading practices of an interpretive community. Second, texts are not timeless aesthetic objects or neutral receptacles for information. Rather they are important sites for the cross generational reproduction of discourses and ideology, identity and power within these same communities. In this sense, I would want to affirm the value of current emphases of many programs: teaching people how to crack the 'code' of written language and how to 'construct meaning', as much of the aforementioned psychological literature suggests. But I would argue that these pragmatic and critical dimensions of reading practice are equally essential aspects of reading practice.

Accordingly, Peter Freebody of Griffith University and I have developed a model to describe what we see as four key elements of proficient, critical reading as social practice in late capitalist societies. You will recall that I concluded my history noting the inescapable moral regulation in reading. Here Freebody and I argue that the following model of reading is not 'true' in a 'scientific' sense but rather that it is a normative statement about what we think reading should entail in a democratic culture, institutional life.

CODING COMPETENCE

learning your role as code breaker
(How do I crack this?)

SEMANTIC COMPETENCE

learning your role as text participant
(What does this mean?)

PRAGMATIC COMPETENCE

learning your role as text user
(What do I do with this, here and now?)

CRITICAL COMPETENCE

learning your role as text analyst
(What is this text trying to do to me?)

Table 1: ELEMENTS OF READING AS CRITICAL SOCIAL PRACTICE

(Source: Freebody & Luke, 1990)

In what follows I review some of the challenges that each presents students and teachers. Because of the vast research literature and current instructional concentration on 'coding' and 'semantic' competence, I here concentrate on 'pragmatic' and 'critical' competence, and provide some examples of the latter in action.

Coding Competence: Learning Your Role as Code Breaker

Mastery of the technology of written script requires engagement with two aspects of the technology: the relationship between spoken sounds and written symbols, and the contents of that relationship. That work concludes that the failure of individuals to acquire proficiency with the structured nature of spoken language and its components is a major factor in reading failure and can lead to avoidance strategies which extend far beyond primary schooling. These findings are corroborated in Johnston's (1985) study of adult illiterates, who reported that they experienced 'success' in early reading instruction through memory and the use of pictorial aids, but that their lack of resources for contending with the technology of writing became a source of withdrawal and failure in school.

We are not here providing justification for isolated 'skill and drill' approaches to phonics and word recognition, for learning decontextualised spelling and grammatical rules. For learning to read effectively entails far more than this. We argue that knowledges of the alphabet, grapheme/phoneme relationships, left to right directionality and so forth are necessary but not sufficient conditions for using literacy for particular social functions in actual contexts. As Cole and Griffin (1986) suggest, it is a matter of providing understandings of what that technology entails and of practising its use with aid of an accomplished text user. Part of mastering that technology entails learning your role as text participant.

Semantic Competence: Learning Your Role as Text Participant

By semantic competence, we refer to development of those knowledge resources to engage the meaning systems of text. Cognitive, literary and semiotic theories of reading together stress the importance of topical and textual knowledge in the reading of new texts and genres. In effect, readers bring complex intertextual resources to reading (Luke, 1993), a stock of knowledge built up from prior readings of texts of various media, everyday

community experiences and so forth. These resources are neither universal nor wholly idiosyncratic, but tend to take on culture specific configurations and patterns, drawing from extant ideologies and discourses available in particular interpretive communities. This signals that the use of texts about which learners have limited background knowledge can be a hindrance to comprehension. This would be particularly significant in the case of instruction for ethnic and linguistic minorities, where learners bring varying bodies of cultural knowledge and semantic resources to bear on the text. However, beyond the use of 'relevant' text, it also underlines the need for explicit instructional introduction to those texts and genres that make new culture and even gender specific meaning demands on students.

Pragmatic Competence: Learning Your Role as Text User

A reader may be a fluent decoder and able to construct meaning, but be wholly unfamiliar with how, where, and to what end a text might be used. As ample ethnographic studies now demonstrate, reading occurs in bounded, identifiable literacy events (Heath, 1982). These events are far from spontaneous and arbitrary but occur in the contexts of institutional life and entail social relations of power. There readers learn what the culture counts as an adequate use of reading in a range of school, work, leisure and civil contexts. In the structured 'language games' around text, particular conventions are in play regarding how to get the floor, turntaking procedures, what can be said about a text, by whom, when, and so forth. To use a simple bank form, for example, one cannot just read and fill out the form, but one needs to know the rules for the service transaction within which the form is used. This contextual characteristic of reading practice has been a longstanding concern of communicative approaches to English as a Second Language. However, it tends to be omitted in those approaches to reading that stress behavioural and cognitive skills. Views of reading as a private, internal act are very much a legacy of both monastic traditions of scriptural exegesis, and of 19th century Romantic models of reading which featured in, for instance, Preface to Lyrical Ballads, and were the object of satire in works like Madame Bovary. There literacy is defined as a technology of the self, as a means for the conduct of an internal mental life. But if we view literacies as social practices undertaken with others, then indeed students must learn what to do with a text in a broad range of social

contexts. Whether one is trying to make sense of a loan contract, planning a job related task, or participating in a classroom lesson about a text, one needs to know how to 'do' reading as a pragmatic, face-to-face competence. Being a successful text user, then, entails developing and practising social and sociolinguistic resources for participating in 'what this text is for, here and now'.

Critical Competence: Learning Your Role as Text Analyst

One may be able to decode a passage of text adequately, and bring to bear the relevant knowledge resources to make sense of a text, and further be able to use the text to meet particular purposes at work, school or home. But all of these can remain fundamentally acritical procedures: that is, they can entail accepting, without question, the validity, force and value of the text in question. Written texts are not neutral, transparent windows on the realities of social and natural world (Voloshinov, 1986). Rather they are refractive; that is, they actively construct and represent the world. To read critically, then, requires awareness of, and facility with, techniques by which texts and discourses construct and position human subjects and social reality. Recent models of critical reading as discourse critique set out to engage students in the practices of critiquing reading, writing and speaking practices, such that the political power and knowledge relations expressed and represented by texts and discourses are foregrounded (Baker & Luke, 1991). Their purpose is to engage readers directly and actively in the politics of discourse in contemporary cultures, to open institutional sites and possibilities for alternative 'readings' and 'writings'. The theoretical parameters for a discourse analytic approach to reading are drawn from poststructuralist and feminist discourse theories, systemic functional linguistics, and neomarxian cultural studies. Kress (1985) outlines how texts construct 'subject positions' and 'reading positions'. That is, texts both represent and construct 'subjects' in the social and natural world, and they position and construct a model reader. The lexical, syntactic and semantic devices of texts thus portray a 'possible world', and they position the reader to read or interpret that possible world in particular ways. Accordingly, a discourse analytic approach to critical reading would include, for instance, an understanding of how words and grammatical structures shape up portrayals of the world, human agency, cause and effect, and so forth. It might also foreground some

of the linguistic techniques that texts use to define and manipulate readers (e.g., imperatives, pronominalisation).

These devices for building up possible worlds and social relations are most obvious in texts like newspaper and magazine articles, advertisements, commercial and political pamphlets. Consider, for instance, the following excerpt from a secondary school 1987 "Social Issues" textbook:

Think of your own family. You are probably aware that you belong to a separate group in society. You feel that you are in some ways 'different' from the Browns or the Smiths across the road. Each member of your family plays a number of roles. You may look up to your father or mother as the 'head of the family' or the 'family breadwinner'. Your mum or dad, for their part, will expect you to behave in certain ways to help out with the dishes or in the garage, for example...

The version of the world and the social order built up here is readily identifiable and contestable in classroom talk. A version of the ideal, Anglo nuclear family is built up through this 'nonfiction', with the Browns and Smiths across the road, and two parents who expect you to do dishes and clean the garage. But the reading position is established through the use of the imperative, e.g., "Think of your own family..", which literally tells you what to do when you read. Further, the reader is constructed and positioned by the use of pronominalisation (e.g., "You", "your") which depicts your identity in relation to your "separate group" and the social 'other'. Classroom discussion of 'what the text is trying to do to me' can begin from analyses of such allegedly nonfiction, but value and ideology laden texts of everyday life (for classroom frames and strategies, see Freebody et al. 1991).

What I am forwarding here is not some kind of esoteric 'deconstruction' or 'ideology critique' divorced from everyday life, but is essential for dealing with apparently quite straightforward and innocent workplace texts like job applications, documents like credit forms and loan applications. These too have powerful positioning devices which bear discussion and debate, careful consideration before signing on the dotted line. Consider the following text, an extract from the current Real Estate Institute of Queensland Agreement for Tenancy Residential Premises (p. 2): The Tenant hereby covenants and agrees with the Landlord...

(e) Damage by the Tenant To repair at the Tenant's expense within a reasonable time damage to the premises [sic] furniture, fixtures and fittings caused by the wilful or negligent conduct of he Tenant or persons coming into or upon the premises with his [sic] consent.

(f) Nuisance to conduct himself [sic] and to ensure that other persons in the premises conduct themselves in a manner that will not cause disturbance or be a nuisance or an annoyance to adjoining or neighbouring occupiers.

In this text as well, we encounter yet another construction of an ideal social order of [male] tenants, a set of moral codes governing behaviour and so forth. But there is more to this than just a set of legal sanctions and an attendant 'dominant ideology' at work. The moral description here is polysemous, subject to interpretation. To read and sign this, and to put down your first and last months' rents and deposit, is to effectively open yourself up to someone's (the landlords? the magistrates? your solicitor's?) interpretation and 'reading' of your behaviour. The positioning of the reader/tenant is complete: your fate pivots on the ambiguity of the terms "reasonable", "wilful", "negligent", "nuisance" and "annoyance". You (and your students) might be well advised to consider and clarify these meanings and implications before you sign and pay. My second example is a job application used by a major national fast food franchise which requires that applicants read and reply to typical questions about contact addresses, driver license, health history, banking details, etc. A second series of questions concerns "personal history" asking about education, "previous employment history" (5 blanks), the latter asking the applicant to specify "company name", "phone no." and "reason for leaving". The form concludes by asking the applicant, among other things: "Do you agree to join a union?" "Reason for applying for the job?" "Do you like shift work?" "Any hobbies?".

Is filling this form out just a matter of decoding, constructing meanings and truth telling? I don't think so. To 'read' and respond 'appropriately' to these questions requires a careful second guessing of how the text is trying to construct an ideal (fast food) worker, and position me, the applicant, to respond. To answer, and to get the job, requires something far more complex

than simply 'telling the truth'. It requires that I second guess these constructions and positionings and come up with a strategy for answering. The first set of basic information is relatively straightforward, except for those unemployed who might not have a fixed address: Do I reveal this? Do I reveal that I live in 'that' end of town? Or do I offer the 'halftruth' of listing a friend or relative's address?. Regarding my previous employment history: Do I list all the jobs I've held? Only related ones? The one where I had a dispute with the manager? Do I give my reason for leaving (e.g. "I couldn't stand the place". "I messed up"; "sexual harassment")? Or a euphemism or decoy (e.g., "relocated to another city")? Finally: Will "agreement to join a union" help me get this job? Deter me? I guess the latter depends on whether I live in Victoria, the particular kind of job in question and so forth. My point here is that there is far more to 'reading' here than simply deciphering requests for information, processing those requests and responding truthfully. Just as the textbook passage and the tenancy agreement prescribe versions of the world so does this job application, where the ideal applicant/reader is constructed. By 'critical competence' then, I refer to the development of a metalanguage for talking about how texts code cultural ideologies, and how they position readers in subtle and often quite exploitative ways. My argument is that in order to contest or rewrite a cultural text, one has to be able to recognise and talk about the various textual elements at work. I offer these critical 'readings' as examples for what could be discussed in relation to functional texts; I would argue strongly that no one 'metalanguage' can be set by governments or institutional structures. Differing literate communities develop ways of talking critically about texts, in interaction with key primary discourses (Gee, 1990), extant registers in people's lives. The approach I have outlined here does not aim for effective 'comprehension', the valorisation of the 'power' of literature, the 'liberation' of 'voice' or, for that matter, the development of esoteric skills of 'deconstruction'. Rather it sets out to teach critical reading as "an understanding of how texts are public artefacts available to critique, contestation and dispute" (Freebody et al. 1991 p.453). To those working with this model in syllabus and program design we would underline two crucial qualifications:

(1) Each element is necessary but not sufficient for a critical literacy. Just as stressing the 'code' at the expense of 'meaning' won't suffice, doing Freire style critical analysis and not attending to issues of students' intertextual resources or 'cracking the code' in, for example, an adult ESL class may present problems. (2) This is not a developmental sequence or cycle or taxonomy. Hence, these should not be construed as 'stages' or 'levels' to be dealt with in turn. In the study of all texts at all stages in our programs, we should rigorously look to ask ourselves what kinds of code, meaning, pragmatic and critical demands and possibilities are in play. Critical reading: Essential or luxury add on?

I have not devoted sufficient time to outlining the 'new times' of a globalised, postfordist economy and what this might mean for industry restructuring, adult basic education, and, more importantly, for the growing ranks of the structural unemployed. The questions of where and how literate work is being skilled and deskilled, of which workplaces are requiring robotic skills and which workplaces are engaging workers in more creative, autonomous textual work, about which workplaces will and can remain viable in a transnational division of labor are issues are being taken up in this country and overseas (e.g., Wood, 1989; Luke, in press/1992). To close, I simply want to make the case for the kind of critical reading I've here described. Conventional reading programs, both humanist and skills based, tend to developmentally delay the introduction of critical textual analysis, assuming that basic reading and writing skills are required before students can engage with larger value and ideology systems in texts. The model that Freebody and I have developed here makes the case that all adult and child readers need to learn a range of literate competences. It does not tell you as educators that you've been 'wrong' about the teaching of reading. It simply states that you've been shaping it in particular ways, defining the horizons for what will count as literacy in particular moral and political directions. And it argues that whether you've been emphasising cracking the code, or making meaning, or even talking about personal responses to politics and literature, that your approach is potentially part of a broader, more comprehensive description of what reading practice could be about. Again: coding, semantic, pragmatic and critical dimensions of reading can be brought to bear on all texts.

The question of how and what to teach as reading in adult education is not solely a pedagogical question; it is not one of finding the right behaviourist or cognitive, linguistic or psycholinguistic theory of reading. We have been down that road for the past 100 years and it has not 'solved' the problem. Rather it has deferred it. Reading is a sociological and, ultimately, political question. The question of what will count as critical reading in literate cultures cannot be addressed solely by reference to literary descriptions of the virtues of literature, psychological descriptions of mental processes, or linguistic descriptions of texts. How nations, communities and school systems decide to shape the social practices of reading are normative cultural and sociological decisions, decisions tied up with how power and knowledge are to be distributed in print cultures. This is what the current policy debates are all about; it is what the national competency profiles are all about; and, ultimately, it is what our classroom practice is all about. Western late capitalist cultures centre on semiotic exchange, where signs, symbols and discourse have become the principal modes of economic exchange and value. Reading is clearly essential for participation in the lived realities of everyday life, childhood, work, and leisure. But to become a functional reader may, quite ironically, make one more susceptible to the discourses and texts of a consumer culture which at every turn builds and defines readers' identities, actions, and their very senses of 'reality'. That is, possession of rudimentary decoding, pragmatic and semantic skills to construct and use meaning from text may appear empowering, but in fact may open one to multiple channels of misinformation and exploitation: you may become just literate enough to get yourself badly in debt, exploited and locked out. In this kind of literate environment, conventional skills models, personal growth and reader response, and comprehension teaching may fall short of meeting the necessities of social participation and citizenship. Critical reading would need to entail an explicit understanding of both how texts are ideological, and how reading is a potential avenue towards constructing and remaking the social and natural worlds. Classroom instruction can be reshaped to enable students to read and write 'differently', to see, discuss, and counter the techniques that texts use to position and construct their very identities and relations.

Some would claim that these critical, political issues are at the heart of 'higher order', elitist literature study; that they aren't central to Adult Education, migrant education, prison education, where many are struggling with the code. Certainly, this is what is implied in those proficiency scales that place literary reading on higher order levels. Further, you may be thinking that for the client in an adult literacy program or recent migrant, basic skills are what count; that your clients, for instance, need to read to operate a forklift effectively, or, for that matter, to wire an electrical item without electrocuting themselves. I think that we can all come up with instances where the automaticity and accuracy of reading is warranted. But even these texts are potentially fallible, polysemous, and suiting particular interests: all texts prescribe and endorse possible worlds. As James Gee's (1990) widely cited analysis of an ostensibly innocent aspirin bottle label suggests: there is a whole approach to medicalisation, to illness, to diagnostics and treatment of illness, to multinational pharmaceutical corporations, to physician/patient relations on your local Bayer label. There is, likewise, a whole universe of gender relations constructed on women's 'personal hygiene' products, and, for that matter, a whole universe of how to run vehicles and appliances in instruction manuals, which insist that you use more of the makers' unnecessary products. Is it absolutely essential to use Ford parts? Or Ford brakefluid in your forklift? Will others do? Is it in your best interests to fill out this form and take out this VISA card at 21% interest in the first place? Gee's point is that there are interests, power relations and, crucially, judgements involved in all everyday texts, the kind we teach with and about in ABE and ESL programs. So I disagree with those who claim that learning critical scepticism, that learning critique is some kind of bourgeois add on, unnecessary for marginal clientele. Judgements about what to buy, what to comply with, when to argue back, whether to get angry or hold your peace, how to argue back in speech and writing, are all key moves and moments in the politics of everyday life, not frills, added extras or luxuries for literacy training. For recent migrants, just as for my father and mother when they moved into a new culture, new jobs, new neighbourhoods, what to say, what to do, when to comply, when to disagree were not luxuries. In discriminatory work markets, in situations where you can't get proper housing because of your colour or class, in hard times

whether the 1930s or now, in the midst of structural unemployment these are crucial life decisions, around which migrant, working class and women's groups develop a 'folk wisdom'. For my father, a union linotyper who ran into a succession of dead end jobs in the 1930s and 40s, the axiom was: "When the white boss tells you what to do, you agree, then go off and do what you think needs to be done". Whether you agree with it or not, this bit of folk wisdom embodies a theory of institutional power relations, of everyday pragmatic survival, and of criticism. (I think he was implying to me that the bosses in his day were dickheads). To return to my initial point: This is the stuff that the ABE and ESL program never raises. It is more likely to tell me to read and comply 'appropriately', 'effectively' and 'efficiently'. Yet the emergent workplace and community social relations of "New Times" are well underway in some sites. The globalisation of economies and cultures, the transformation from manufacturing to service work cuts both ways. For each documented instance of new forms of productivity and work, new forms of exploitation, of exclusion, of marginalisation have also emerged (Hall, 1990). In his context, it would appear that 'basic skills' and narrowly defined and behavioural specified job skills may simply render one ready for obsolescence and exploitation in a fluid job market characterised by rapid sector change and structural unemployment. Pierre Bourdieu repeatedly points out one never simply learns 'language' and 'literacy', but, more importantly, one learns a 'disposition' towards language and literacy, a social relation to texts and textuality (Bourdieu & Passeron, 1989). It is this relation which comes to count as a marker for the achievement of literate competence, perhaps more so than any single identifiable skill or knowledge. At the heart of contemporary curriculum, whether phonics or word recognition, progressivist or classicist, skillsbased or humanist, explicit or implicit, is the teaching of the authority of print culture. Beginning in early childhood education children are taught variously to 'understand' and 'comprehend', 'appreciate' and 'experience' literature. Where it is dealt with at all, a sceptical, questioning relation to written texts and text knowledge is considered a later developmental achievement somewhere down the line in schooling or up the scale on Huey or Piaget or Kohlberg's moral levels. The opportunity we have is to construct and develop a reading instruction that foregrounds ways of

working with, talking about and back to, and second guessing texts. In the larger context of workplace reform and social justice, a critical social literacy that values critique, analysis, innovation and appraisals for action may be of social, economic and political benefit for the community, for the individual, and ultimately, for the nation.

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REFERENCES

- Baker, C.D. & Luke, A. Eds. 1991. *Towards a Critical Sociology of Reading Pedagogy*. Amsterdam: John Benjamins.
- Baker, L. & Brown, A. L. 1984. Metacognitive skills and reading. In P.D. Pearson, Ed., *Handbook of Reading Research*. New York: Longman.
- Bourdieu, P. 1991. *Language and Symbolic Power*. J.B. Thompson, ed. Cambridge: Polity Press.
- Bourdieu, P. & Passeron, J.C. 1989. *Reproduction: In Education, Society and Culture*. 2nd Ed. R. Nice, trans. London: Sage.
- Cole, M. & Griffin, P. 1986. A sociohistorical approach to remediation. In S.C. deCastell, A. Luke & K. Egan, eds., *Literacy, Society and Schooling*. Cambridge: Cambridge University Press.
- Cope, B. & Kalantzis, M. 1993. Contradictions in the canon: Nationalism and the cultural literacy debate. In A. Luke & P. Gilbert, eds., *Literacy in Contexts: Australian Perspectives and Issues*. Sydney: Allen & Unwin.
- deCastell, S.C., Luke, A. & Maclennan, D. 1986. On defining literacy. In S.C. deCastell, A. Luke & K. Egan, eds., *Literacy, Society and Schooling*. Cambridge: Cambridge University Press.
- Delpit, L.D. 1988. The silenced dialogue: Power and pedagogy in educating other people's children. *Harvard Educational Review* 58, 280298.

- Fairclough, N. 1989. **Language and Power**. London: Longman. Foucault, M. 1987. **Discipline and Punish: The Birth of the Prison**. A. Sheridan, trans. Harmondsworth: Penguin.
- Freebody, P. & Luke, A. 1990. 'Literacies' programs: Debates and demands in cultural context. **Prospect** 5(3), 716.
- Freebody, P., Luke, A., & Gilbert, P. H. 1991. Reading positions and practices in the classroom. **Curriculum Inquiry** 21, 435-458.
- Game, A. 1989. Research and writing: Secretaries and bosses. **Journal of Pragmatics** 13, 343-61.
- Game, A. & Pringle, R. 1983. **Gender at Work**. Sydney: Allen & Unwin.
- Gee, J.P. 1990. **Social Linguistics and Literacies: Ideologies in Discourses**. London: Falmer Press.
- Griffin, P. & Forwood, A. 1990. **Adult Literacy and Numeracy Competency Scales**. Coburg: Assessment Research Centre/Philip Institute of Technology.
- Hail, S. 1991. Brave new world. **Socialist Review**, 91(1), 57-64.
- Halliday, M.A.K. 1978. **Language as Social Semiotic**. London: Edward Arnold.
- Heath, S.B. 1982. Protean shapes: Ever shifting oral and literate traditions. In D. Tannen, Ed. **Spoken and Written Language: Exploring Orality and Literacy**. Norwood: Ablex.
- Huey, E.B. 1914. **The Psychology and Pedagogy of Reading**. New York: Macmillan.
- Johnston, P.H. 1985. Understanding reading disability. **Harvard Educational Review** 55, 153-77.
- Kress, G. 1985. **Linguistic Processes in Sociocultural Practice**. Geelong: Deakin University Press.
- Luke, A. 1988. **Literacy, Textbooks and Ideology**. London: Falmer Press.
- Luke, A. in press/1992. Literacy and work in 'new times'. **Open Letter**.
- Luke, A. 1993. **The Social Construction of Literacy in the Primary School**. Melbourne: Macmillan.

McCormack, R. 1991. Framing the field: Adult literacies and the future'. In F. Christie, et al., eds., **Teaching English Literacy: A Project of National Significance on the Preservice Preparation of Teachers for Teaching English Literacy**. Vol 2. Darwin: Northern Territory University.

McCormack, R. in press/1992. Review of Joyce, "Workplace Literacy". **Education Australia**.

Voloshinov, V.I. 1988. **Marxism and the Philosophy of Language** L. Matejka & I.R. Titunik, trans. Cambridge, MA: Harvard University Press.

Wood, S. Ed. 1989. **The Transformation of Work?** London: Unwin Hyman.

Dr Mary Hartmann

Therapeutic relief to the psycho-sexually congested conference delegate ... at a price

Before I begin my presentation here this evening at this Australian Council for Adult Literacy 1992 National Conference "The Right to Literacy ~ The Rhetoric, The Romance, The Reality" - might I just say "Thank you" to all the organisers for allowing me to speak to you this evening. And might I say thank you to all of you for allowing me the time to speak - time you could be spending in that central and precious Adult Literacy and Numeracy Activity of *communicating* with each other. Certainly there is plenty to *communicate* about in the literacy and numeracy field at the moment. You've got to *communicate* constantly just to keep up. Or perhaps you prefer to call it *networking* or *liaising* or *skill sharing* or *information transfer* or *feedback* or simply *chatting*. But whatever you call it you do an awful lot of it and thank you for stopping it just long enough to hear me. And also, before I commence the formal part of my presentation here this evening, I would like to congratulate you all. Congratulations for successfully filling in the application form for this conference - the most complicated form in the Western World! Filling in a Tax Return or a Life Insurance policy is peanuts by comparison.

As you've probably realised by now, this application form is in fact a highly sophisticated 'Assessment & Reporting' tool designed to test the literacy skills of ACAL conference supporters. The creation of this form was funded by ALLP under SIP for PD (and if I have to tell anyone in this room that ALLP is the Australian Language and Literacy Policy, that SIP is the Special Intervention Program and that PD is Professional Development then I suggest you pack up and go home now because you're only going to get more and more lost on Saturday and Sunday at this conference).

In fact, if some of you want to show a bit of this entrepreneurial flair you're all meant to have in the 90s, why don't you publish a dictionary of literacy and numeracy acronyms so a few people could actually follow the conversations at conferences like this. Only trouble is, new acronyms are

being created so rapidly, you'd have to publish an up-date of the Acronym Dictionary every 72 hours!

But such a dictionary is desperately needed. There are still people in this room tonight who think the ALAN Scales got their name because they were dreamed up by somebody called Alan. (Adult Literacy And Numeracy Competency Scales ~ ALAN Scales ~ Dr Griffin's name is Patrick).

I saw a little lassie here earlier today trying to work out what M - A - T - R - I - X stood for. She thought it was another acronym. Poor little thing was just an average literacy teacher who didn't have enough numeracy to realise 'matrix' is a mathematical term!

But let's get back to the application form for this conference. This application form brings together the best features of the ALAN Scales on the one hand and the Interim Literacy Course Matrix on the other. Now I know the supporters of these two very different approaches to assessment have about as much affection and respect for each other as St George and the Queensland Broncos in the League or Collingwood and the West Coast Eagles in Aussie Rules or the Aussie car supporters and the Nissan team at the Bathurst races.

But in a special effort for this National ACAL Conference (Australian Council for Adult Literacy that is), they sat down together and created this Application-Form-Assessment-Tool. The level of literacy required to 'unpack meaning' from a text of this genre is so high that the ability to complete it successfully puts you into a tiny literacy elite - the top 10% in Australian society! If you also managed to 'unpack meaning' or 'process information' from the titles of the workshops as well - then you're in the top 2% of Australian society!

And if you had sufficient literacy and numeracy skills to 'decode' the diagrams of the buildings in the Conference Program and you actually managed to find your workshops today, then your skills are so high you've shot up through the roof of the ALAN Scales and you've jumped right outside the Matrix altogether! Your literacy skills are up there with Shakespeare, Homer and Milton and I think you should chuck in your current job, move into DEET headquarters (Department of Employment Education and Training that is), and start rewriting the ALLP from scratch.

And by the way, if there are any wimmin in this room who just took offence because all the giants of literature I just mentioned were all men (Shakespeare, Homer and Milton that is), I would like to make it perfectly clear that I do not personally support any of this EEO / Wimmin's nonsense. I certainly didn't need any 'special programs' when I was studying to be a neuro-surgeon/part-time model.

But patients, I can see a few puzzled faces amongst you and I know what you're thinking. I don't want to seem like a white-coated know-all, but I do! You're wondering why a private, affluent medical specialist, such as myself, has taken the time to speak to this rather tawdry and pathetic collection of under-valued and over-worked literacy hacks in a tarted up aeroplane hanger of a conference centre in this big white elephant development by the sea known as Darling Harbour.

Well, as the lassie said, my name is Mary Hartman and I run a chain of highly lucrative, private (of course) clinics for people not unlike yourselves, people who suffer from profound psycho-sexual malfunction.

It may interest you to know that a recent survey has shown that professionals working in the field of literacy and numeracy are made up of a statistical majority of sexual cripples! This objective research has shown that people in organisations run by TAFE, AMES, BACE or CAEC are at particular risk of psycho-sexual collapse. And the people working in Universities who've actually read ALLP from cover to cover are **COMPLETE COT CASES!** (TAFE, that's Technical and Further Education; AMES, that's the Adult Migrant English Service; BACE, that's the Board of Adult and Community Education and the CAEC, that's the Community and Evening Colleges).

Indeed, in recent weeks my clinics all over Australia have literally been flooded with literacy professionals desperately seeking help. And so I agreed to come here tonight and extend the hand of sexual healing to you and invite you to one of my clinics. But the question must be asked: "Why are so many of you here tonight on the verge of psycho-sexual collapse?" I think the answer can be summed up in one word - **PRESSURE!**

Patients, as we all know, the world of literacy and numeracy is changing. You have to read the newspapers and listen to AM on ABC Radio every

morning just to keep up. In recent years the field of literacy has been changing so quickly and so profoundly it makes the Reformation and the Renaissance and the Industrial Revolution look like minor hiccups in world history by comparison! Government in Italy since World War II looks stable by comparison.

- Finn Review
- Carmichael Report
- the Green and White Papers
- (now known as ALLP)
- the ALAN Scales
- the Mayer Committee's Employment Related Competencies
- the Interim Literacy Course Matrix
- National Accreditation Frameworks
- National Curricula
- National Assessment and Reporting
- Whole Language
- Psycholinguistics
- Systemic Functional Linguistics
- ... and the list goes on

It's hardly surprising that half of you are on valium and the other half are spending your weekends in my heated intensive care clinics! No wonder you're under pressure! And there is so much to read in the 1990s! All the reports. All the policies. All the critiques of all the reports and all the policies. And all the critiques are put out by itty-bitty groups with huge, long, indecipherable names - names that make acronyms as long as the names on Welsh railway stations!

If sheer weight of paper could improve the literacy and numeracy skills of the Australian adult student population, then every adult Australian would either be working on a Doctoral thesis or breaking new ground in Chaos Theory. Greenpeace has estimated that the process of developing literacy policies in this country is currently responsible for the destruction of a Brazilian rainforest every 32 seconds.

By the time this Conference is over, half the Amazon will have gone as well. No wonder your major sponsor is **REFLEX PAPER** - you never stop

photocopying! The Finn Review alone took out 50,000 trees. Any of you who've actually read it will know what I'm talking about. (And if you still think the Finn Review is a national financial paper that doesn't have enough pictures, then you'd better see Allan Luke and Rosie Wickert after my presentation. They'd like to tie a few copies of the ALLP around your feet and throw you into the harbour).

Actually, I had a literacy teacher from a TAFE college in clinic recently in a shocking state. This lass started blubbering like a baby and confessed that she actually had no idea what the ALAN Scales really involved, let alone whether the Matrix was a more educationally sound approach. And when it came to knowing whether she had a clear theoretical framework to underpin her teaching, she just felt her teaching strategies were like a bowl of muesli - full of variety, sometimes hard to digest but basically good enough to keep her students regular and to get them through another day in the classroom. She knew she was coming to this conference and she might have to open her mouth in a workshop, so she decided to try and read the ALAN Scales and the ACAL View in the week before coming to this conference.

She had to read them at work because her house is full of hungry, noisy kids. So she got into work and opened the first page of the Adult Literacy and Numeracy Competency Scales. She read one page and then got interrupted by a student with a document **that had to be checked** and paper work **that had to be processed**. She read another page and then got interrupted by phone calls about urgent staffing problems for the afternoon classes. She read another page - and got interrupted by a meeting with staff to discuss the new referrals from the CES and by meetings with her boss to discuss the latest DEET guidelines for SIP and by meetings to plan Professional Development for the full-time and part-time staff so they could understand the new assessment procedures for SIP and the implications of possible private assessors answering the latest ad in the paper from DEET and the CES. Then she had to go off and actually teach a class - and before she knew it, it was time to rush home and cook tea for the kids and she still hadn't got past page 3 of the ALAN Scales, let alone read the ACAL response. Finally in despair at **ever** finding some **uninterrupted** time to **genuinely absorb** the content of these **vital** documents she set aside a

Saturday afternoon at home to read both those documents and the ALLP - because she was genuinely curious to see it all for herself.

You can probably guess what happened - she was interrupted by a very dear friend who was a part-time teacher, a part-time teacher who was having yet another nervous breakdown about her working conditions and isolation from the information flow at the workplace. And the last thing the part-time teacher was going to do was let a full-time teacher have the luxury of 4 or 5 hours of uninterrupted, complex reading. After all, you might all be spending your time talking about literacy but who's got the time to actually read for pleasure anymore? By the time you read the big stories in the paper, write a quick letter to your Mum, knock off an urgent DO List for work tomorrow you're too tired to do anything except settle down in front of "Sylvania Waters". Am I right?? Yes, patients. The pressure on all of you is enormous!

It would all be so much easier if all the staff were working as a team and playing together. But we all know there are still many 'change resistant' people in TAFE. People who have become so 'change resistant' that when the Prime Minister talks about new millions for youth training, all they think is: "Oh no, not more change!"

Dr Gregor described the current reality very bluntly in the *TAFE in NSW: Directions for the Future* document: "With the on-going changes to Australia's industry base and the current perilous state of the economy ... change is an on-going necessity for the TAFE Commission." And yet, as Human Resource Managers, you know there are still some Principals, some Head Teachers, some senior administrative staff who think 'creative management' means 'getting-the-girl-to-put-coloured-paper-in-the-photocopier-machine'. When you tell these people that every manager of the future will be a 'change agent', they just smile and think: "Bring back the Latin Mass!" When you tell them: "The climate of the future is constant change!" they just think: "The Luddites had a point!"

In fact the 'change resistant' TAFE employee thinks a lot of things. They think the place for 'imaginative' and 'creative' people is in the Arts. That's why God created the Australia Council. Maybe all these 'change agents' should leave TAFE alone and just get themselves jobs at the Art Gallery of

NSW. You can read them bits of the Scott Review and the Finn Review and the Carmichael Report which scream about the necessity to change, and they just don't seem to hear you (in the Californian sense of the word). There are so many sources of pressure I could explore here tonight if only there was time. As Human Resource Managers you will soon be responsible, once the Institute restructures are announced, for all the practicalities of staffing the Institutes.

You are key 'change agents' in TAFE's workplace culture and as the VEETAC Working Party (the Vocational Education Employment and Training Advisory Committee ~ Working Party, that is) pointed out in its report on *Staffing TAFE for the 21st Century* in May this year, the TAFE workplace culture is a culture with problems. I quote from page 47 of the VEETAC Working Party Report which says: "The success of organisations depends to a large degree on the culture established in a workplace [because it provides] a sound platform for introducing and managing change". And then the report goes on to express concern about problems such as "divisiveness, lack of goodwill, conflict, negative industrial relations".

I had a TAFE patient tell me last week that the relations between some individuals in the Central Resource Units - Industrial Relations, Personnel and Policies, and the Human Resource Division - were so antagonistic that the Croatian/Bosnian conflict paled into insignificance. As one HRM put it to me (Human Resource Manager, that is), you spend so much time getting key people in each Division to agree to a new plan you have put forward; you're patient and reasonable; and just when you think you can see the light at the end of the tunnel you realise it's the light of an on-coming train! Sarajevo looks like Disneyland compared to some conflicts between some individuals in Personnel and Policies and HRD. As for negotiating with some elements in the Teachers Federation, the presence of a UN Peace Keeping Force could well be necessary on occasion.

The key to overcoming these 'cultural conflicts' identified in the VEETAC Report is "to increase the devolution of staffing arrangements to the TAFE College level" and to involve all the "key stakeholders" (staff and union representatives) in "consultation and negotiation" so they can 'own' the decisions.

Of course, this makes sense to all of you here this evening - but this emphasis on 'consultation and negotiation' with 'key stake holders' ... In other words, this emphasis on 'meetings' to talk

- with staff
- with Principals
- with teachers
- with local industry
- with other Colleges
- with the Central Support Unit
- with the Institute Director

leads me to another key source of pressure and stress on the Human Resource Managers of TAFE. I'm referring of course to **MEETING PSYCHOSIS**. Put simply, Meeting Psychosis is a condition whereby the patient is only able to relate comfortably to another human being in the context of a meeting. In a meeting, agenda in hand the Meeting Psychotic is confident, outgoing, even dominant. But outside of a meeting they can't even look another person in the eye. They all fail utterly at all levels of human communication. In short, they are social cripples, or as we prefer to say in these days of EEO, they are 'socially challenged'.

In the final stages of this characteristic HRM disorder, you'll find the Psychotic constantly calling meetings at the various Colleges. And when the meeting time arrives, while the other people attending the meeting are on the phone, or making a cup of tea, or finalising an urgent report - indeed doing anything they can think of to avoid yet another meeting - the Meeting Psychotic is happily setting chairs in a circle, whistling in joyous anticipation. Anyone caught smiling at the commencement of a meeting could be showing early symptoms.

Actually, I had a lady HRM from a TAFE Institute in therapy just the other day. This little lassie had reached the stage of calling meetings in her family and home environment. Each night she insisted that her family turn off the telly. She then put butcher's paper up on the wall and sat in a circle in the lounge room and armed herself with a big, black Texta. Then this HRM forced her family to identify *strategies* for doing the housework and methods for assessing whether their *goals* had been achieved. She even

insisted that her aging mother and small toddler develop *indicators* for *evaluating* the dinner. When she started demanding that her husband submit a *strategic plan* for the *recruitment and training* of a cleaning person and lawn-mowing person to provide *post-compulsory educational pathways* for their unemployed teenage son - the husband had her scheduled into my care. It was a very sad case.

Speaking of husbands, it's about time I said something about how all this pressure affects the most intimate side of your psycho-sexual lives. Don't be embarrassed by this part of my consultation - remember, Gregor and I are both doctors. I think the issues can best be summed up by this simple story.

A lady Human Resource Manager was recently looking through her handbag as she sat at her desk. Suddenly she found a photograph of a man and she wondered who it was. Then she realised it was her husband! This woman is so tired when she comes home from work she can't even turn on the telly, let alone anyone else.

Let me say what I always say to ladies in management who are climbing the promotional ladder; inevitably, as you climb, you will become more assertive, more confident, more informed, more capable, *more powerful*.

No doubt this will help you in your chosen career but it certainly won't take you down the road to psycho-sexual fulfilment! Always remember: if men wanted sex with equals, they'd have intercourse with each other.

Fear not! Pop along to one of my clinics and I'll teach you how to spend your days transforming the workplace culture of TAFE and then come home and transform yourselves into simpering sex kittens to arouse and satiate your man - all this without the aid of drugs, wires or special diets! As my most successful female Senior Executive Service patients like to say: "Be equal by day, a woman by night!"

But patients, I know what some of you are thinking. I don't want to seem like a white-coated professional know-all but I do!. Some of you are thinking, "I'm not sure that I want to be a simpering sex kitten" and some of you gentlemen are thinking, "I'm not sure I want to be a compassionate, EEO oriented modern male manager who is also a tiger in the cot." If these are the types of thoughts you are thinking you fall into another category

altogether. You may be what we refer to clinically as **TRANSCENDENTS**. A **Transcendent** is a career manager who appears to have totally eliminated, or transcended the sexual drive altogether. This manager no longer even desires to leave the office; travelling home is simply a waste of time. Curling up in the office with the Finn Review and Dr Gregor's latest memo is about as much excitement as you can stand. For the **Transcendents** we offer a course mailed to your office in a plain brown envelope. The course is simply called: "No sex without guilt"

I look forward to seeing you at my clinics.

Literacy Practices and the construction of personhood

Brian Street

I want to do three things. One is just to run over fairly quickly some of the conceptual apparatus that is becoming familiar in the New Literacy Studies, to extend it and to deal with some of the problems it has raised in various ways; then I want to focus specifically on questions of self, person and identity, using some anthropological literature, and to consider what the implications of that are, for how we look at literacy practices. And finally, what are the implications for pedagogy of approaching literacy and the construction of personhood in this way? Approaching the themes of the conference in this way might, I will suggest, lead us to address not *The Rhetoric*, *The Romance*, *The Reality of Literacy*, but rather to ask *Whose Rhetoric*, *Whose Romance*, *Whose Reality*?

I start with the argument that I constantly find myself putting as an anthropologist, that when we discuss literacy, it helps not to start from education, but to start from a different perspective. We often find ourselves as anthropologists looking at literacy practices in different cultures and we start with a question of epistemology: in what ways is knowledge constructed in this particular community, or questions of identity, self, person, which appear at first sight not to have a great deal to do with literacy?

Firstly, then, some of the theories and concepts. I have tried to develop a distinction between an autonomous and ideological model of literacy and I will discuss here briefly one or two of the issues that have been raised since it was first put forward. The argument goes that a great deal of the thinking about literacy in a previous generation has assumed that literacy with a big 'L' and a single 'y' was a unitary autonomous thing that had consequences. In the area that I know particularly well, 'development', the autonomous model of literacy has been a dominant feature. The underlying assumption of modernisation in the post-war era has been that if some societies appear to be less advanced than others, the way to get them advanced was to give them the things the so-called advanced ones had. Whilst that appeared to be

true in the economic sense, the notion was carried over also to education and to literacy. So if 'we' in the west had literacy, we should be able to give 'them' in the developing world, the literacy that we had, and they would then catch up. Some of these ideas around the autonomous characteristics of literacy, I would argue, persist across the development spectrum wherever modernisation theory hasn't been challenged; and they persist in educational worlds. One form the argument has taken has been called 'the great divide' so I will briefly summarise that debate.

The argument went that the shift in society, in individuals and in history, from oral to written, was the grand shift of history. This shift—from oral to written—had consequences for cognition, for mental processing of various kinds, for social organisations, for democracy, development—the great divide—built into huge amounts of development and education literature. This view presents itself as 'common sense'. One of the reasons for referring to this position as an autonomous model of literacy is precisely because it represents itself as though it isn't a position located ideologically at all, as though it is just natural. And one of the reasons why I want to call the counter-position ideological, is precisely in order to signal that we're not simply talking here about technical features of the written process or the oral process. We're talking about people's notions of the writing process itself; we're talking about the fact that people in society not only practise reading and writing but they have models and ideas about it and that there are contests over them.

People often ask, why don't you just call this a cultural model of literacy up against the autonomous model? There are all kinds of problems with simply signalling it as cultural. The reason I want to stick with *ideological* is because I think it signals very precisely that there are always contests over the meaning and the use of literacy practices; that those contests are always embedded in power relations of some kind; and that seems to me an important starting point from which we then go out and begin to research in a variety of contexts.

The agenda, then, is contested already. There is variation in literacy across a whole range of different practices, contexts, domains and in each case there are "competing discourses", a useful phrase (Lee, 1992). These are power

relations we're talking about. So that's why I want to stick with the notion of an ideological model. I will add one further gloss on that, which is that people have said "we don't like these dichotomies—you've just set up a new one here, ideological and autonomous". I'd like to argue that this isn't in fact a dichotomy; it seems to me quite clear that the autonomous model of literacy is already ideological. What characterises it as a particular kind of ideology is the way in which it disguises its ideological status. Its claims of neutrality are what make it precisely an ideological model. And one of the ways in which ideology works is precisely by disguising its features.

Terry Eagleton (1990), trying to deal with various uses of the word 'ideology', offers some helpful distinctions. He wants to be able to use ideology both for representing control but also for contests over meaning, contests over resources, and that seems to me a slightly better place to locate the issue of literacy. Literacy practices are in fact always contests over meaning, over discourse (cf. Gee, 1990), over resources. They may be represented in the autonomous form as a dominant ideology; and you only have to read the media about government language policy, national curriculum etc. to see the way in which the technicist language claiming neutrality about literacy practices still dominates a lot of the popular exhortation. Like Eagleton, I do want to be able to use the word also for resistance, for those forms of literacy practice, for those conceptions of literacy which resist the dominant one. So, in a sense, both ideological and autonomous are in fact ideological—the distinction dissolves.

I will cite briefly some of the concepts that are being worked around in the field and that we need to elaborate in order to examine literacy more closely from within an ideological model. Firstly, the concept of 'Literacy events' was coined by Shirley Brice Heath (1982a) as an analogy with speech event, in the socio-linguistic literature. A literacy event, then, is any event in which reading and/or writing has a role. If you're trying to do research on literacy, you can't research 'literacy'—you've got to find something to actually look at and this is what the concept of a 'literacy event' facilitates. This is not true only for research; it also applies to curriculum development, development programs, management of literacy and such like. Lectures represent a classic literacy event: the lecturer reads the odd note here and there; on overhead slide projects different types of notes; occasionally people take a note down;

some of them might file it away somewhere in a bureaucracy; some of them might throw it in the waste-paper basket, an important part of any filing system, as word processing packages have taken on board; the audience might look up at the overhead, and look down and write, read their own notes and listen again at the speaker.

But I'm not entirely satisfied with the notion of a literacy event because 'event' seems to signal mainly behaviour. And we know, as anthropologists, that what gives meaning to all the scribbling and the notes and such like is that we all have models in our mind of what this behaviour means; in fact we've all been socialised into the particular conventions of the literacy event in which we are involved quite strongly. There are all kinds of conventions which people internalise—we all know in everyday literacy events, such as encounters with bureaucracy, or in seminars or meetings, how tightly controlled the conventions are. They are often more apparent at times of political resistance—feminist and other movements tend to resist dominant speech/writing conventions, to make them explicit and then find ways of changing and resisting them.

What I am arguing is that we have models in our minds of the literacy event which need also to be signalled and these models are culturally constructed not natural. I want to use the concept of literacy practices to indicate this level of the cultural uses and meaning of reading and writing, the conceptions of the reading and writing process that people hold when they're engaged in the event. The distinction has been well summarised and further elaborated in a recent book called *Writing in the Community* (Sage, 1991). So, armed with those two concepts, literacy events and literacy practices, within the framework of an ideological model, it seems to me possible to go out and start doing comparative research as well as to organise programs and develop curricula in a more socially conscious and explicit way.

However, I have to put one brief warning in relation to the uses of the concept of 'culture' in relation to accounts of literacy practices. The theoretical position of a lot of contemporary anthropology is that culture is a process not an inventory of characteristics for differentiating one set of people from another (cf. Thornton, 1988). It is very hard any more to use

culture in the normalised way that it has been used. We're talking about cultural processes, the ways in which ideas, symbols, signs and cultural artefacts can be used and changed. A telling example I encountered recently in South Africa was around the use of the concept of a 'cultural weapon' by Zulus. I was talking to a civil rights lawyer there recently who was quite clear that the government was playing on a notion of a culture in its reified sense: the appeal to tradition as though it were a fixed thing handed down from the past and to be revered by the present is in fact something that is constructed at the present moment in time. So it's a process and it's continuing.

What I want to avoid, in looking at the cultural aspect of literacy, is recreating the reified list—here's a culture, here's a literacy; here's another culture, here's its literacy. And that unfortunately is one of the problems we've got ourselves into with the notion of multiple literacies. It seems to me the notion of multiple literacies is crucial in challenging the autonomous model. We have to be able to indicate that the notion of a single literacy with a big 'L' and a single 'y' is only one subculture's view and there are varieties of literacy practices. But once you slip into the notion of multiple literacies you then begin to move towards the listed inventory—I will indicate just a few of the different ways in which the notion of multiple literacy has been defined recently to indicate the conceptual as well as ideological difficulties entailed.

The work by Kirsch and Jungblatt in America (1986), *Profiles of America's Young Adults*, for instance, talks of three literacies: reading, writing and numeracy with possibly a fourth, document processing. In Australia there's a certain amount of work going on regarding frameworks and competency scales for assessing literacy levels (Griffin, 1990). And one set of these says explicitly there are four literacies: literacy for knowledge, literacy for self-expression, literacy for practical purposes, literacy for public debate. Heath (1983a), working in the Piedmont Carolinas, talked about three communities, each having a literacy. That's certainly the case of some work in America around adolescent literacies in and out of school; Miriam Camitta (1993) for instance, talks about vernacular literacy and schools literacy, where the vernacular represents a resistance to the dominant mode by adolescents who develop their own literacy practices separately.

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I have tried to develop the notion of dominant literacies, on the analogy with some of the work in socio-linguistics around the notion of dominant language (Grillo, 1989), where the argument is that if you talk about 'standard', it looks as though that's naturally the one that we should all be acquiring. If you talk about dominant language, you're asking the question how did it become dominant, how does it reproduce itself, how does it contest with other marginalised languages? And I want to use the analogy to talk about dominant literacies as opposed to marginalised literacies.

There seem to me, then, a number of problems in the concept of multiple literacy. The number of different ways in which the notion of 'literacies' in the plural is being used creates a lack of precision, a vagueness which allows the word to be used for anything to do with communication. Also, if we are not careful, we slide back into the reification that correlates a given community with a given literacy. A single culture with a big 'C' becomes associated with a single literacy with a big 'L'. So I take a comment from Neil Mercer of the OU who suggested recently that the notion of literacy practices was more 'robust' than the notion of multiple literacies. As a researcher, I can see the point of that. If I go out looking for literacy practices, and see how they contest with other literacy practices in relation to contested cultural processes, it seems to me I'm on slightly safer ground.

So that's some of the ground that a number of researchers have been over in the last few years. A great deal of current research in ethnography of literacy practices is beginning to explore the associations between cultural conventions, literacy practices, notions of self, person and identity and struggles over power. We need, then not just 'cultural' models of literacy but 'ideological' ones, in the sense that in all of these cases, the uses and meanings of literacy entail struggles over particular identities up against other identities, often imposed ones.

Personhood

There is an anthropological literature on the notion of 'personhood' in different cultures that can be helpful in this context. Kirkpatrick, for instance, suggest that "personhood is best viewed as a field that is ideologically structured in any society" (1983, p.1). By this he means, not that the person is determined by dominant or top-down institutions (as in



earlier concepts of 'ideology', cf. Eagleton, 1990), but that it is "a site of articulation of dominant and subordinate ideological components". There is a struggle over the appropriate definitions of the person, rather than a single, "totalising concept such as the individual" with which many western societies (and theorists) operate. Kirkpatrick provides a helpful summary of different ways in which the person has been represented in both academic literature and popular ideology. The person has been viewed, by Mauss for instance, as a basic term organising morality and a fundamental category of the human mind; by Hallowsell as an important means for the cultural formation and production of self-awareness; and by Geertz as a model of and for action, central to an understanding of both social order and social process (Kirkpatrick, 1983, p.1).

In contrast, other societies, such as those in Polynesia, where Kirkpatrick worked, make more evident the varied meanings of personhood in different contexts. The cross-cultural data, then, suggests that the "notion of the person held in society is inevitably complex and ambiguous" and different facets of the person are called upon for different purposes and contexts. Despite this variation, however, in a given social milieu "the person constructs retain a core of values and meaning for social participants". In particular, the judgments of people and events as 'moral' is frequently focused on notions of personhood: what is proper behaviour, what is human/not human; how 'we' and 'they' are classified in some universal world order; all of these ordering procedures make central use of the concept of person.

The broader implications of national and international constructions of the person, self and identity have been addressed by a number of recent authors, struggling with the question, as Elliot puts it, of "where at the present time might the self figure in the current transitions from modernity to postmodernity" (Elliot, *THES* 10.7.92). Lash and Friedman, for instance, see the relationship between self and person as reciprocal: "... the human subject is actively situated in the context of various social, linguistic and discursive codes". In this view individuals are not merely 'lost' in cultural symbols. Rather, human subjects are shaped by—and yet re-shape—the multiplicity of meanings in social life". I am not sure yet whether this formulation is merely a vacuous relexicalising of the old debates about the

individual and society or whether it provides new insights specific to the present condition of society. The question of how the creative dimension of the self can 're-shape' the given cultural norms into which it is socialised is certainly crucial to the analysis of literacy practices that I am putting forward, as I shall indicate below.

There seems to be a notion of the pre-discursive self, prior to language and acting independently on social institutions and established cultural forms, a notion that is present in much current literature. Benhabib, for instance, directly addresses this issue: "Instead of focusing on the cultural and normative content of selfhood, we need to examine the deep emotional and moral roots of how the human infant becomes a social self". Unlike the postmodern decoding of the subject into linguistic units, or the discourse on socialisation in critical theory, she feels it is imperative to trace the developmental process through which the vulnerable and dependent human infant becomes a creative, acting and gendered self. It seems to me difficult to trace this process without attending to specific discursive practices, such as the ways in which children are socialised into reading and writing, but this approach does force us to recognise the extent to which such learning is deeply implicated in the construction of self and person and not simply, as many educators and politicians would have us believe, simply a matter of acquisition of correct technical skills or competencies. Close detailed analysis of literacy practices in different social context can help us understand how we develop our notions of self, person and identity in relation to social institutions and established cultural norms. It can also help us address the wider questions with which many of the above authors are concerned. Elliot, for instance, asks "how do the globalising tendencies of modernity transform self-identity and social relations?". We need, he argues, "to examine how global transmutations of the personal sphere can generate forms of subjectivity that are liberating and/or repressive. . ." These globalising processes are highly contradictory in their political implications and require a "rethinking of the nature of subjectivity". Again, micro-ethnographic accounts of the acquisition and use of literacy practices in different cultural contexts can provide a specific site for the study of these ideological contests of modernity and its transitions. The focus on the actual social practices of reading and writing avoids the problems of over

generalisation associated with communication theory and of cultural narrowness associated with current educational agendas regarding literacy.

I would like to develop this analysis in two ways for purposes of the account of literacy. Firstly, the uses and meanings of literacy in different societies are similar to the uses and meanings of the concept of person, in that both represent what Kirkpatrick calls, "fields in which dominant and other ideological structures are visible". (p.12) Secondly, there is frequently a crucial relationship between the ideological fields of personhood and of literacy. What it is to be a person, to be moral and to be human in specific cultural contexts is frequently signified by the kind of literacy practices in which a person is engaged. This is highlighted by the ways in which, during International Literacy Year, agencies including UNESCO came to associate literacy with the idea of a fully human person, with enlightenment in contrast with the dark space of 'illiteracy'. The term 'Literacy' in 'International Literacy Year' (as in many agency slogans) is code for 'illiteracy' with all that implies about personhood, civilisation, citizenship etc. This, I would like to suggest, is characteristic of the ways in which literacy and personhood are intertwined in many cultural discourses and serve to remind us that the acquisition of literacy involves more than simply technical skills. I will now summarise some recent work in the ethnography of literacy that specifically addresses some of the issues raised above concerning self, person and identity in contemporary society.

Niko Besnier provides a specific account of 'Literacy practices and the notion of person' on the Pacific Atoll of Nukulaelae in which he conducted anthropological fieldwork. "The person on Nukulaelae", he says, "is perceived as a complex system of more or less autonomous 'uiga' meanings, which appear in different contexts and may be in conflict with each other. Each aspect of the person is related in complex ways to particular emotional experiences, interactional dynamics and emotional roles. In Nukulaleae ethnopsychology, the notion of self as locus of psychological experience and that of person as social performer are interrelated" (1991, p.19). The relevance of this to our present concerns is that in Nukulaelae "literacy itself is viewed as an important element in the very definition of person in that being able to read and write is presupposed in the characterisation of a socially competent person. Literacy is thus constitutively related to

personhood". In this context there are two different literacies; that associated with giving sermons and that associated with letter writing, and each involves different aspects of personhood and identity. Personal letters are associated with, affect and locate the individual in a socioeconomic system of generosity, sociability and concern for younger kin. The person as represented in letters is a vulnerable entity at the mercy of emotional experience and the circumstances of life. Sermons, on the other hand, bring out "authoritarianism and assertiveness and highlight asymmetries in power, knowledge and morality between the writer-performer and the audience" (p.20). Sermon gives harangue their audience; letter writers express empathy.

Different literacy practices, then, are associated with different notions of the person and of the self. Similar sets of associations can be seen in this culture, once the significance of literacy for these processes is recognised. Whether we attend a course or school, or become involved in a new institutional set of literacy practices, through work, political activism, personal relationships etc., we are doing more than simply decoding script, producing essays or writing a proper hand; we are taking on—or resisting—the identities associated with those practices. The idea that literacy practices are constitutive of identities provides us with a different—and I would argue more constructive—basis for understanding and comparing literacy practices in different cultures than the current emphasis on a simple literacy/illiteracy dichotomy.

I will now look briefly at one or two ethnographic examples that help clarify and elaborate the theoretical positions described above. One of the most striking examples is some work by Kathleen Rockhill with Hispanic women in California (Rockhill, 1987). These were migrant groups from Mexico, Spanish-speaking, in which man in the first generation went out to find jobs whilst women mainly managed the domestic sphere. The first response to her questions about literacy, and the role of literacy practices in their lives, were that the men were literate and the women were illiterate. The agencies working with them said this, as did the men and women themselves. When Rockhill looked closer she found the men were mainly engaged in learning English in the oral domain in the workplace and were not that engaged in literacy practices. The women were engaged in domestic literacy as we

might call it, a pattern replicated in many parts of the world in which women are engaged in interfacing with the state—all those notes that come from school, all that literature that comes from social services—the women were managing that. But both they, the men and the social workers marginalised both the literacy and the domestic practice, and so it didn't count as a form of literacy.

The next stage in Rockhill's account, notes how the women themselves wanted to get out of that particular sphere, and they saw literacy as a route to do it. They weren't just thinking about economic independence although that was crucial; they were thinking about notions of personhood. The identity associated with domestic literacy and the domestic sphere was one they wanted to reject. And one of Kathleen Rockhill's articles is entitled 'Longing to be SOMEBODY'. She argues that the model they have in mind—that they wanted to use literacy through literacy classes to achieve—was something like that of the woman-of-the-world secretary you see in the adverts. In order to get to the literacy classes, these women are having to resist the pressure from men, and the men in fact exercise considerable violence to stop them getting out. The reason the men are exercising violence is because they see that shift of identity being associated directly with literacy. The very fact of trying to go to literacy classes is itself constitutive of changes of identity and of gendered power relations in the home. Literacy in itself, in the autonomous sense, is not responsible for this shift, but rather the social relations it involves, the social practices of reading and writing are deeply ideological.

There is a further level of representation and perception of the literacy practices in which these women are engaged, which likewise indicates their ideological character. The people teaching the literacy classes to which these women are coming have a different notion of where these women are going to finish up. Their model is that they'll finish up in small, clerical-type jobs, say at supermarkets, cashout desks and such-like. This is not the world of the globe-trotting secretary—somebody—at all. So there's a conflict there as well. Meanwhile other teachers, at these adult education classes, more committed to writing process and consciousness-raising take a different view again, from either the students themselves, their husbands or the other teachers. So Rockhill's argument is that we can't disassociate the moves to

different literacies from the moves to different conceptions of the person and the different ideological positions of the actors involved and their social relations.

Miriam Camitta has done ethnographic fieldwork into literacy practices amongst adolescents in schools in Philadelphia. The insight there started from her position as a teacher with the fact that when the teachers asked the students to fill pages of writing they simply got blank pages; and yet the students were busy passing notes about under desk and outside of school. There was a lot of literacy going on, so she followed this up as a researcher, rather than as a teacher focusing on the discipline issue. As a researcher interested in literacy practices the students' activities could teach her a lot more about the role of literacy in contemporary urban contexts than would a simple school-oriented view that they were breaking institutional rules. She found that a number of these teenage girls in particular were doing a whole mix of literacy practices. They were cutting out songs from magazines, and pictures; they were doing some autobiographical writing; some of them were writing rap songs which they would then read out to friends or show to friends that they'd edit there on the spot. And one of the points is precisely that this is a context in which the writing process is interactive, very recursive, very dialogic—a lot of feedback, in contrast with earlier views of writing, such as those cited above by Ong, that writing inevitably distances whilst oral language is dialogic. In this context the written medium is more dialogic whilst oral discourse often involved detachment and separation, as in 'he said, she said' stories. In this case Camitta further argues that vernacular literacy is in resistance to the dominant literacy of the school.

That links with another piece of research also in that area regarding the Amish in Pennsylvania. Again a teacher started the process moving; Andrea Fishman went to do some research amongst the Amish community, lived in a house with a family where there were some teenage girls and thought, that a good place to start as a good writing process teacher, would be to say to these girls, "Could you please keep a dialogue journal for me? and then I'll write back in it and we'll interact with each other around that." After a few weeks, finding no response at all, she began to penetrate what might be the cultural explanations for this. Fishman discovered that amongst the Amish

there's what Dumont might call a more socially-centred notion of the person in which it is improper to assert and express the self over and above other selves in the community. So writing there should be an expression of the community and its identity at that larger level. When Fishman looked at a newsletter that was being produced in the community, she likewise noted the ways in which there were very factual things in there, very little editing went on, all kinds of mistakes entered which didn't seem to matter to anybody because all that mattered was getting across these particular factual moments about school trips to look at nature or whatever it might be. They weren't concerned with the notion of a self being expressed. The writing process itself was merely a transparent way of achieving some further social end. So it was quite improper, in fact, culturally, to have asked these girls to keep a dialogue journal.

A great deal of current research in ethnography of literacy practices is beginning to explore these associations between cultural conventions, literacy practices, notions of self, person and identity and struggles over power. We need, then, not just 'cultural' models of literacy but 'ideological' ones, in the sense that in all of these cases, the uses and meanings of literacy entail struggles over particular identities up against other identities, often imposed ones.

Implications for Education and Pedagogy

It seems to follow from all of this that the teacher, the curriculum designer and the program developer, whether it be post-industrialised societies facing 'new times' or in Third-World 'development' programs, need to have an understanding not only of educational theory, but of linguistic theory, of literacy theory and of social theory. That is putting one huge burden on all of us. I would argue though it is already being done implicitly anyway, that teaching literacy already involves from the outset assumptions about cultural relations, identity etc. and that to maintain any kind of control of what we are doing, we need to make them explicit; to make it quite clear that in any context where literacy practices are being introduced or very often new literacy practises where there already were literacy practices, then these kinds of analyses are going to be happening implicitly and the critical teachers will want to work through what its implications are for pedagogy,

school literacy, for their social relations with their students. I will briefly touch on a number of approaches to literacy, the Freireian approach, the language experience approach and the genre approach.

With regard to schooled literacy, it is clear that in general the autonomous model of literacy has dominated curriculum and pedagogy. As Freebody and others have shown, apparently innocent texts for infants and questions by teachers embed ways of maintaining discipline and of constructing socialised and generally uncritical persons. The importance of the school curriculum for wider political concerns has become more explicit recently in a number of countries, such as the UK, where a national curriculum has been developed and where public debates have raged regarding proper ways of learning to read and write. A visiting anthropologist would find it an interesting cultural problem to explain how it is, that amidst economic decline and major world catastrophes, the British newspapers can run headlines and lead articles on which method of learning literacy is best, the phonics approach or the 'real books'. Successive government commissions (and more recently simply letters from ministers that take on the force of government Orders in Council without the inconvenience of lengthy research and debate entailed by public enquiries) have become increasingly prescriptive regarding the language practices and curriculum to be 'delivered' in schools. Recently, for instance, the head of the National Curriculum Council was reported in the press as arguing that children's pronunciation should be corrected in the classroom and even in the playground, whilst at the same time greater emphasis should be placed on correct spelling and on a culturally specific literacy canon. The attention to such detail and the central importance of literacy acquisition, and writing dialect to national politics is less surprising in the light of the critical analysis we are developing here. A major concern of literacy transmission is training in discipline; learning precise phonemic distinctions is not just a technical prerequisite of reading and writing but a key way of training new members of the polity how to learn and how to discern other distinctions, to make appropriate cultural discriminations in societies that are increasingly heterogeneous. The secondary discourses, as Gee calls the literacies developed by state institutions, enable a centralising state to assert homogeneity against the heterogeneity evident in the variety of primary

discourses into which communities socialise their members. Teaching awareness of these conflicts and of the ways in which literacy practices are a site of ideological contest, is itself already a challenge to the dominant autonomous model that disguises such processes.

This is what Paulo Freire's approach to learning in the Third World literacy campaigns has attempted to do. Criticising the 'banking' approach to learning that assumed knowledge was a fixed set of facts to be deposited in the learner, he has advocated an approach that starts from consciousness raising, enabling the poor and oppressed to explore and analyse the sources of their oppression. Literacy classes would begin with discussion of key concepts in the local context, such as 'favela' (slum) in shanty towns. The animator would discuss with class members what such concepts means in their context, how it is that they come to live in such conditions, where the responsibility lies for the gross poverty experienced by so many. Once the words themselves had become familiar in this critical sense, the animator would then begin to write them on the board. In Portuguese, the language in which Freire began his work, and also in Spanish, in which it has been particularly influential, words are built up out of syllables so that a word such as 'favela' can be broken down into parts and then each part—fav . . . ela—rebuilt with other syllables—fav + elo— to make new words. Students can quickly learn to copy the letters of such key words and then make their own new words, moving onto sentence building. This approach, a combination of general political socialisation with specific language techniques, has been highly influential in a number of literacy campaigns in the past twenty years and is also being employed in many adult literacy classes in industrialised societies. From the perspective being developed here, however, there are a number of problems that need addressing.

Bourgeois, writing of the Nicaraguan Literacy crusade which was one of the more spectacular successes of a modified Freireian approach, points out as an anthropologist how culturally specific the chosen key words can be and how difficult it is for program organisers and teachers to really know what the key words in a culture are and what they mean. The Sandanistas organised their campaign after the revolution (cf. Lankshear) in the midst of revolutionary fervour that many commentators see as the key ingredient for success of the 'mass' campaign (cf. Bhola). But they failed at first to

recognise that those who lived on the Atlantic coast belonged to quite different cultural and language groupings than the dominant Spanish speaking peoples who had been involved in the revolution. For them the key phrase 'Sandino is the Hero of the Revolution' was as meaningless and as much part of Managuan hegemony as had been the grosser propaganda of the previous Samosa regime (Freeland). The Freireian approach is vulnerable to such culturally-blind manipulation by activists imbued with ideological fervour and believing so strongly that they are 'empowering' 'ignorant' peasants that they fail to see their own cultural and political domination. Rogers, reviewing a recent book on literacy and power in South American literacy campaigns (Archer and Costello, 1990) makes a similar point. Against the apparent belief of the authors and of many of the practitioners whose work they describe, that literacy is inevitably empowering, Rogers argues:

Until we know the nature of the power used by the oppressor, we cannot know whether literacy can or cannot do anything to relieve that oppression. By a close study of the nature and causes of poverty, it seems to be increasingly accepted that literacy can do little to relieve the first stages of extreme poverty (though it contributes mightily to the second and higher levels of increasing prosperity). Similarly, what we need now is to study power first, not literacy. If literacy in itself does possess the power to empower, as is so often claimed, then more is needed than the case studies in this book to demonstrate it. But I am beginning to doubt it; for elites who hold power do not do so on the basis of literacy. They often use literacy to buttress their power; but they have many other weapons. If one hundred per cent literacy was achieved in a country like Cuba, for example, would democracy be advanced one bit? I doubt it (Rogers, 1991, p.34)

A similar argument might be used to qualify some of the faith in teaching children the dominant literacies or the 'genres of power' put forward by some advocates of the genre approach to schooling and literacy in Australia. Some here would argue that children cannot learn to question the power structures of the society until after they have learned these genres. Only then can those students be in a position to question whether these forms are biased against their particular backgrounds—in gender or ethnic terms for

instance—and work to change them. There are a number of problems with this 'wait for critique' approach. Gee (1990) points out that much of the linguistic triviality that goes to make up such genres and to mark social groups as separate (phonology, spelling, surface grammar, etc.) is learnt in "socially situated practices" (p.149) not in the classroom; hence "they cannot be 'picked up' later, outside the full context of an early apprenticeship (at home and at school)". This is the problem with J.D.Hirsch's much-publicised notion of 'cultural literacy', which is strikingly similar to that proposed by those on the other side of the political spectrum as the 'genres of power': "He is right", says Gee, "that without having mastered an extensive list of trivialities people can be (and often are) excluded from 'goods' controlled by dominant groups in the society; he is wrong that this can be taught (in a classroom of all places!) apart from the socially situated practices that these groups have incorporated into their homes and daily lives" (Gee, 1990, p.149).

A further problem with the 'wait for critique' approach is highlighted by Roger's arguments above: this is that even when children have acquired the powerful genres there is no guarantee that they will become empowered; the goal posts may shift, as many women and those from ethnic minorities and working class backgrounds have discovered in the US and UK, where statistics show that women and people of colour who have university degrees cannot obtain the kinds of jobs achieved by white men with comparable qualifications.

A further problem with the dominant literacy position is how do we know what it is? As with other aspects of literacy, assumptions are being made about the nature and uses of reading and writing without actual ethnographic knowledge. There are in fact a number of powerful genres, not just a single autonomous literacy and we know very little about how they operate—in the stock exchange for instance, or in the higher reaches of commerce and government. One might speculate that these in-house, abbreviated literacies through which those already confident of power communicate, are not the same as those laborious and explicit genres being taught in schools. After all, as many pupils know, the teachers who impart these genres have evidently themselves failed to achieve positions of power

in their society. There is much research to be done yet on the actual relations between specific genres and the holding of power, financial and political.

There is a further argument, central to the ideological model of literacy (Street, 1984) that learning literacy is not just about acquiring content but about learning a process. Every literacy is learnt in a specific context in a particular way and the modes of learning, the social relationships of student to teacher are modes of socialisation and acculturation. The student is learning cultural models of identity and personhood, not just how to decode script or write a particular hand. If that is the case, then leaving the critical process until after they have learnt many of the genres of literacy used in that society, is putting off, possibly for ever, the socialisation into critical perspective. When exactly will most students revise and criticise their school learning if not during the process of experiencing it?

This approach, in which liberal technicists line up with radical genre theorists, is I believe, fundamentally flawed and deeply conservative. Apart from problems with the concept of 'stages' and 'levels' that are coming to dominate discourses on literacy, there are problems in the theories of power, of literacy and of socialisation that underpin these approaches. This is well articulated by Sue Newman:

Because stage-level models are generally based on middle class or mainstream definitions of standard or normative behaviour, they also ignore the political aspects of literacy development by failure to acknowledge that people are often denied comparable access to a particular literacy because of race, class or gender. Benefits of higher levels of literacy are cited without acknowledging that such benefits may not be identical for those who attain them, again because of differential status within a society. (Newman, 1992, p.13)

An approach that sees literacy as critical social practice would make explicit from the outset both the assumptions and the power relations on which these models of literacy are based. In contrast to the argument that learners are not 'ready' for such critical interpretations until they reach higher stages or levels, I want to argue that tutors have a social obligation to do so. Much of the work of ACAL will, I believe, be concerned with examining ways in which this is possible on the assumption that skilled teachers can facilitate

critical perspectives in appropriate language and communicative forms as readily as traditionalists can impart genres, levels, contents and skills within a conservative view of literacy (cf. Cope and Kalantzis, 1992). I hope that the account of literacy presented here, focusing on cross-cultural and theoretical issues, will make some contribution to this and to future discussions amongst adult educators in Australia. Referring back to the theme of the conference, this entails addressing not simply *The Rhetoric, The Romance, The Reality of Literacy*, but rather *Whose Rhetoric, Whose Romance, Whose Reality*.

REFERENCES

- Archer, D. & Costello, P. 1990, *Literacy and Power*, Earthscan, London.
- Baker, D. & Street, B. 1993, 'Literacy and Numeracy', in *Encyclopedia of Education*.
- Barton, D & Hamilton, M. 1990, *Researching Literacy in Industrialised Countries: Trends and Prospects*, UNESCO, IBE, Hamburg.
- Barton, D. & Ivanci, R. eds. 1991, *Writing in the Community*, Sage, London.
- Bell, J. ed 1990, *TESL Talk: ESL Literacy*, vol.20, no.1, Ontario, Canada.
- Benhabib, S. 1992, *Situating the Self: Gender, Community and Postmodernism in Contemporary Theory*, Polity Press, London.
- Besnier, N. 1989, 'Literacy and feelings: the encoding of affect in Nukulaelae letters', *Text*, vol.9, no.1.
- Besier, N. 1990, 'Literacy and the notion of person on Nukulaelae Atoll', *American Anthropologist*, 93.
- Bhola, H.S. 1984a, *Campaigning for Literacy*, UNESCO, Paris
- Boonzaier, E. & Sharp, J. eds. 1988, *South African Keywords*, David Philip, Cape Town.
- Bloome, D. ed. 1989, *Classroom and Literacy*, Ablex, Norwood, NJ.
- Camitta, M. 1992. 'Vernacular writing: varieties of literacy among Philadelphia High School students', in Street, B. ed. *Cross-Cultural Approaches to Literacy*, CUP.

- Carrithers, M. ed. 1985, *The Category of the Person*, CUP, Cambridge.
- Cascardi, A. 1992, *The Subject of Modernity*, CUP, Cambridge.
- de Castell, S., Luke, A., & Luke, C. eds. 1989, *Language, Authority and Criticism: readings on the school textbook*, Falmer Press, Brighton.
- Chick, K. ed. 1990, *Searching for Relevance: Contextual Issues in Applied Linguistics in Southern Africa*, SAALA, Natal.
- Cook-Gumperz, J. ed. 1986, *The Social Construction of Literacy*, CUP.
- Cope, B. and Kalantzis, M. 1992, 'The Literacies of Power and the Powers of Literacy: the Genre Approach to Teaching Writing', Centre for Workplace Communication and Culture, UTS, Sydney.
- Czerniewske, Pam, 1992, *Learning About Writing*, Blackwell, Oxford.
- Dombey, H. & Robinson, M (eds) 1992, *Literacy for the 21st Century*, Literacy Centre, Brighton Polytechnic: Brighton.
- Eagleton, T. 1990, *Ideology: An Introduction*.
- Elliot, A. 1992, 'Finding One's Self in a Self-Less World', *THES*, 10.7.92.
- Finnegan, R. 1973, 'Literacy versus non-literacy: the great divide' in Finnegan, R. & Horton, B. (eds.) *Modes of Thought*, OUP, London.
- Finnegan, R. 1988, *Literacy and Orality*, Blackwells, Oxford
- la Fontaine, J. 1985, 'Person and individual: some anthropological reflections' in Carrithers, M. (ed.) *The Category of the Person*, CUP, Cambridge.
- Freeland, J. 1990, *The Atlantic Coast in the Nicaraguan Revolution*, WUS: London.
- Freebody, P., Luke, A. & Gilbert, P., 1991, 'Reading positions and practices in the classroom', *Critical Inquiry*, 21:4.
- Gee, J. 1990, Social Linguistics and Literacies: Ideology in *Discourses*, Falmer Press, Brighton.
- Gertz, C. 1984, 'From the native's point of view: on the nature of anthropological understanding' in Graff, H. 1987, *The Legacies of Literacy*, Indiana University Press

- Griffin, P. 1990, *Adult Literacy and Numeracy Competency Scales*, Assessment Research Centre, Phillip Institute of Technology, Victoria, Australia.
- Grillo, R. 1989, *Dominant Language*, CUP.
- Hamilton, M. & Barton, D. 1985, Social and cognitive factors in the development of writing' in Lock, A & Peters, C. (eds.) *The Handbook of Human Symbolic Evolution*, OUP.
- Heath, S. 1982a, 'What no bedtime story means: narrative skills at home and at school', *Language in Society*, vol.11.
- 1982b, 'Protean shapes in literacy events', in Tannen (ed.), *Spoken and Written Language: Exploring Orality and Literacy*, New Jersey, Ablex.
- 1983a, *Ways with Words*, CUP, Cambridge.
- 1983b, 'The achievement of pre-school literacy for mother and child', in Goelman (ed.)
- Hill, C. & Parry, K. 1988, 'Ideological and 'pragmatic' models of assessment', Columbia University, Teachers College, *Occasional Papers* No.1 and in *Linguistics in Education*, vol.1, no.3, 1989.
- Hill, & Parry, K. (forthcoming) *The Test at the Gate: Ethnographic Perspectives on the Assessment of English Language*.
- Hirsch, E.D.Jr. 1987, *Cultural Literacy: What Every American Needs to Know*, Houghton Mifflin, Boston.
- Horsman, J. 1989, 'From the learner's voice: women's experience of illiteracy' in Taylor, M. & Draper, J. (eds.) *Adult Literacy Perspectives*, Culture Concepts Inc., Ontario.
- Hutton, B. (ed) 1992, *Adult Basic Education in South Africa*, OUP, Cape Town.
- Kimberley, Keith; Meek, Margaret and Miller, Jane 1992, *New Readings: Contributions to an Understanding of Literacy*, A & C Black, London.
- Kirkpatrick, J. 1983, *The Marquesan Notion of the Person*, UMI Research Press, Ann Arbor, Michigan.
- Kirsch, I.& Jungblatt, A. 1986, *Profile. of America's Young Adults*, NAEP, Princeton, N.J.

- Kulick, D. & Stroud, C. 1990, 'Conceptions and uses of literacy in Papua New Guinean village', *Man*, n.s. vol.25.
- Lankshear, C. & Lawler, M. 1987, *Literacy, Schooling and Revolution*, Falmer Press, London.
- Lash, S. & Friedman, J. 1992, *Modernity and Identity*, Blackwell, Oxford.
- Lee, D. 1992, *Competing Discourses: Perspectives and Ideology in Language*, Longman, London.
- Luke, A. 1988, *Literacy, Textbooks and Ideology*, Falmer, Brighton.
- McCafferty, J & Street, B. 1988, *Literacy Research in the UK*, RaPAL, Lancaster.
- Mace, J. 1979, *Talking About Literacy*, Routledge, London.
- Meek, M. 1991, *On Being Literate*, Bodley Head, London.
- Miller, C. et. al. 1991, *Breaking the Frame: Reading in South African Education in the Eighties*, OUP, Cape Town.
- Newmans, S. 1992, 'Bringing the Book to Life: Southern Women's Literacies', Ph.D. dissertation, University of Pennsylvania.
- Ong, W. 1982, *Literacy and Orality: the Technologising of the Word*, Methuen, New York.
- Rockhill, K. 1987a, 'Gender, language and the politics of literacy' in *British Journal of the Sociology of Education*, vol.8, no.3.
- Rockhill, K. 1987b, 'Literacy as threat/desire: longing to be somebody', in *Women and Education: a Canadian Perspective*, edited by J.S.Gaskell, a McLaren, Calgary, Detselig.
- Rogers, A. 1991, 'Review of *Literacy and Power*', *BALID Bulletin*, spring
- Rogers, Alan, 1992, *Adults Learning for Development*, Cassell, London.
- Rutherford, J. (ed.) 1990, *Identity: Community, Culture, Difference*, Lawrence & Wishart, London.
- Scribner, S. & Cole, M. 1981, *The Psychology of Literacy*, Harvard University Press, Boston.

- Shuman, A. 'Collaborative Literacy in an urban multi-ethnic neighbourhood' in Wagner, D. (ed.) *Literacy and Ethnicity, The International Journal for the Sociology of Language* 42, N.Y., Mouton.
- Shuman, A. 1986, *Storytelling Rights: The Uses of Oral and Written Texts by Urban Adolescents*, CUP.
- Street, B. 1986, *Literacy in Theory and Practice*, CUP.
- 1987, 'Literacy and social change: the significance of social context in the development of literacy programmes' in *The Future of Literacy*, Wagner, D. (ed.) Pergamon Press, Oxford.
- 1988a, 'A critical look at Walter Ong and the 'Great Divide'', *Literacy Research Centre Newsletter*, University of Pennsylvania, vol.4, no.1.
- 1988b, 'Literacy practices and literacy myths', in Saljo, R. (ed.) *The Written World: Studies in Literate Thought and Action*, Springer-Verlag, Berlin, New York.
- Street, B. (in press) (ed.) *Cross-Cultural Approaches to Literacy*, CUP.
- Street, B. and J. 1991, 'The schooling of literacy' in Street, B. and Ivanic, R. (eds.) *Writing in the Community*, Sage.
- Tannen, D. 1985, 'Relative focus on involvement in oral and written discourse' in Olson, D. & Torrance, N. (eds.) *Literacy, Language and Learning*, CUP, Cambridge.
- Thornton, R. 1988, 'Culture: a contemporary definition', in Bonnzaier, C. & Sharp, J. (eds.), 1988, *South African Keywords*, David Philip, Cape Town.
- Wagner, D. (ed.) 1983, *Literacy and Ethnicity, International Journal of the Sociology of Language*, no.42, New York, Mouton.
- Weinstein-shr, G. 'Literacy and social process: a community in transition' in Street, B. (ed) *Cross-Cultural Approaches to Literacy*, CUP.
- Wertsch, J. (ed.) 1991, *Voices of the Mind*, Harvester, Wheatsheaf, London.
- Willinsky, J. 1990, *The New Literacy*, Routledge, London.

Assembling reading and writing: how institutions construct literate competencies

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Introduction

Two collections of readings on international policies and practices in literacy education, both due for publication soon after the time of writing, open in strikingly comparable ways. The first, from a volume edited by Freebody and Welch (1993):

The almost archetypal innocence of a scene in which one person helps another learn to read or write is matched by the ideological innocence claimed by the disciplines that once exclusively informed that scene—Psychology, Human Development and Educational Measurement. But the study of reading and writing has become a political pursuit. The most significant events in recent theorizing about reading and writing have been the applications of political perspectives from Sociology, Anthropology, History, Politics, Linguistics, and Economics to the study of literacy and literacy education. These perspectives ... have not only contextualised but have often countered the three traditionally dominant accounts of literacy: the growth-through-cultural-heritage account, the cognitive-psychological account, and the skills-and-measurement account. (Welch & Freebody, 1993: 6)

The second, edited by Brian Street:

Whereas previously the focus of academic research was on cognitive consequences of literacy acquisition and in educational contexts upon 'problems' of acquisition and how to 'remediate' learners with reading and writing difficulties, the recent trend has been towards broader considerations of literacy as a social practice and in cross-cultural perspectives. Within this framework, an important shift has been the rejection by many writers of the dominant view of literacy as a 'neutral', technical skill, and the conceptualisation of literacy instead as an ideological practice, implicated in power relations and

embedded in specific cultural meanings and practices. (Street, in press/1993:1)

This paper aims to give concrete examples of this developing perspective, and extends and re-focuses ideas discussed in Freebody (1992). I will show some illustrations of what it means to say that "literacy practices are socially and institutionally embedded", exploring the distinctions between the cultural practices entailed in learning literacy as a school-child and those entailed in learning literacy as an adult in a college, community, or work-place context. The paper first discusses the issue of the 'cultural embedding' of literacy practices, and the selective traditions in literacy that have arisen in schooling. This discussion explores Heap's (1987) distinction between open and closed task ecologies and leads to the proposition that theories of literacy learning have often served to 'disguise' the cultural, institutional, and ideological specificity of literacy practices (Street, 1992). To exemplify and make more visible some of these processes, texts and tasks drawn from both schoolchild and adult literacy education will then be presented. The central position of a notion of 'critical literacy' practices will be argued, and the ways in which that perspective affords professionally constructive and optimistic modes of action to literacy teachers, policy makers, and researchers will be briefly described.

A view of literacy practices as socially situated has wide-ranging implications at this moment in the cultural and industrial history of most Northern societies—a moment when economic, social justice, and multi-cultural agenda are making their most serious claims on educational provision. Some have remarked that there is an irony in the currently energetic development of more detailed and ramified theorising about literacy practices at the very moment when other agenda, in acknowledging the relevance of literacy to many other aspects of public and private life, not the least the work-place, are therefore calling for more 'ready-reckoner' approaches to the teaching and assessment of literacy. The first effort draws our attention to the everyday lived diversity of activities that involve (and not 'necessarily involve') written text; the second agenda puts to the test the idea that some aspects of literate competence are 'portable', 'essential', 'underpinning', or, as minimal bureaucratic convenience, 'reportable' through systems. The paper concludes with the thesis that this view calls for

an ongoing research program to accompany the development of policy and practice in literacy education. The absence of comprehensive ethnographies of literacy practices in everyday context, renders the development of curricula and policy simply the legitimization of beliefs and vested interests—beliefs about non-literate adults, non-English speakers, and, finally, the nature of 'literate competence' itself. Without a principled understanding of literate practices in everyday life, what pass for descriptive statements about competence are in fact prescriptions—statements of preferred rationalities, preferred social relations, and preferred ways of being.

Selective traditions in the institutionalising of literacy practices

To make sense, a conversation or a piece of writing must draw on certain shared presuppositions about word meanings and certain patterns of categories that are understood and accepted by the speakers or the readers. Here is a simple everyday snippet of conversation (taken from Lee, 1991):

Sp1 What are you doing tonight?

Sp2 Nothing.

Sp1 How about a movie?

Sp2 Yeah. Let's go.

This seems completely unremarkable, but in fact some remarkable presuppositions were made by the speakers in order for the conversation to 'come off'. First, how could the Sp2 answer to the question possibly be acceptable? For this to count as an answer and thus for the conversation to proceed the *nothing* needs to be heard as *nothing that might be construed as an obstacle to what you may be about to propose* or something of the sort. Similarly, Sp2's agreement indicates that the suggestion was presupposed as a joint activity—Let's (both) go. That is, the communication comes off only in so far as these quite complex, and silent, presuppositions are shared, even if not acknowledged.

With this view of meaning in mind, the task of analysis is to interrogate a text—written or spoken, and constructed by one person or jointly by many, as in a classroom discussion—for the ways in which the important categories are built either by explicit connections in the text or, as is more often the case, by implication and presupposition. The interrogation can in turn reveal

the selective assumptions and blind-spots that characterise the ways in which activities that are fluid and complex and amenable to many varied 'open' options in the out-of-school world become slimmed down by institutions, sometimes offering only 'thin simulations' of the original (Heap, 1987) or of the tasks that would be labelled the same (say, 'reading') in different contexts (say, a legal office or a factory floor). It is important to explore this idea of the ways in which discourses put various possible meanings of words to work, since it is central to an understanding of how relations of authority are built by the patterned presences and silences of language interaction.

Consider further the argument put by some sociologists of childhood that our theories, folk and scientific, of categories such as 'childhood' are cultural products rather than natural, simply empirical observations. Christopher Jenks, for example, has summarised this point:

The idea of childhood is not a natural but a social construct; as such its status is constituted in particularly socially located forms of discourse .. the child is assembled intentionally to serve the purposes of supporting and perpetuating the fundamental grounds of and versions of man (sic), action, order, language, and rationality within particular theories. (Jenks, 1982: 23)

But childhood, of course, is not the only category that is best seen as social rather than natural. A similar case could be made for the person-categories 'adult' or 'teacher', and for the activity-categories 'reading' and 'writing'. With that orientation in mind, consider first how self-evident it is that some ways of describing persons in discourse are socially or institutionally determined. For example, the selection of a category in a discourse might serve to assemble vocational features—*judge, politician*—or event features—*widow, murderer*—or belief features—*Marxist, agnostic*. However, many categories can be deployed as apparently natural or even physiological, for example, *child, woman, black*, whereas in fact the features they draw upon to make sense of the discourse are ideological, depending on systems of ideas that naturalise inequalities within a usually unstated relational pair or opposition—for the examples above, *adult, man, white* to be read in a particular text as drawing upon *mature, objective, or law-abiding*. We can think

about this point in terms of our implicit theories of school students or adult students. Our folk and scientific theories of 'the learners'—their needs, entering competencies, backgrounds, dialects, interactive repertoires, even their 'self-concepts'—are developed and maintained to suit not only a broader cultural order and logic, but also to suit the specific institutional needs of a school or other work site, for example, 'earllyschool literacy learning' or 'adult basic literacy'. A particular description of, for example, the needs of the young child learning literacy in the first year of school may call (explicitly or otherwise) on our ideas of parental background (supportive, literate, or not), and the 'brightness' of the child (quickness, keenness, and so on). Similarly, the category adult literacy student may entail a cluster of presupposed features about history (failure, alienation, unemployment, dysfunction) and about traits (vulnerability, de-skilling, unemployability).

One aim of this paper is to draw upon theoretical lines of work that have been developed recently and that allow us to view these processes in the reading materials, classroom interaction patterns, and assessment procedures that build or assemble culturally and institutionally specific versions of the student, the teacher, and the definitions of literacy that are in operation in particular situations. That is, one aim is to see how educational institutions necessarily work with narrow purpose-built definitions—selective versions—of their students and of the target practices, in our case literacy, that they wish to develop.

School literacy

What does it mean to say that literacy practices are embedded in, and given their essential shape by, the particular institutional needs of the school, or the adult education college, or by whatever formal or informal instructional context situates the teaching and learning? To explore this question, we need first to examine the particularities of classroom talk, and how it is different from out-of-school talk; how, interactively at least, being a student is different from being a child or an unemployed migrant adult or a father or any other possible category. The institutionalising of a category of persons or the nature of a skill or a task can be seen partly in the talk that goes on in and around it—by the interactive work conducted by the participants that

counts as 'doing reading and writing' on that work site. For instance, Willes (1982) has documented the transformation of children into pupils (the title of her book) in the interactional patterning of ordinary lessons in the first few months of school. These features build not only the standard authority relations that constitute classrooms (as opposed to, say, families); they build also, through selective ways of organising talk, forms of knowing they count in school, and how to show school-knowing. Here is an example from the first month of formal schooling (from Freebody & Dwyer, 1992). The students are gathered on the rug, and the teacher is standing at the board beside a large picture of an airplane.

Teacher: . . . and what is this?

Many students: PLAA . . . AANE

Teacher: Hands up, who can tell me what this is? Sarah?

Sarah: It's a plane.

Teacher: Good girl. It's a plane.

In terms of the everyday practical reasoning applicable to most out-of-school contexts, this is an 'odd' exchange, to put it mildly, even though people well enculturated into classroom life find it absolutely routine. Following other researchers (e.g., French & MacLure, 1980), we might make some straightforward observations about exchanges such as this: a) that the teacher knew the answer to the question already b) that if he did not, the students provided it en masse in the second turn above c) that an answer will be deemed acceptable if it is 'organisationally competent', that is in the right conversational place, and if it is given by an individual and that d) importantly, these features of the statement's acceptability over-ride its status as right or wrong in other possible contexts. So early schooling is partly about learning the particular interactively built relationships that make up our everyday understanding of school life. But we can extend this focus on interactive competence by considering that the learning of the 'content' of school subjects is never separated from these social or interactive learnings. Thus, a school subject (e.g., 'reading', or 'history' or 'physics') is enacted in a social context, and that the interactive features of each context make available to the students, teacher, and any other observers, a

description of the institution's version of doing that subject. Therefore, and particularly for our purposes here, enactments or displays that come to count in the classroom or the adult lesson or the workplace as 'reading and writing' (Baker, 1992; Baker & Freebody, 1989; Heap, 1991) are bound up within the features of the institution's preferred ways of interacting, setting tasks, assessing knowledge, and so on. It is not that there is some essential 'reading and writing' that are given some superficial twist or icing by being done in a kindergarten or a Koranic classroom or a factory training room. Rather it is the particularities of these varying social and institutional settings that select the categories of activities that count, for teacher and student alike (as well as for parent and administrator), as reading and writing. This is the force of the observation that students are enculturated into particular forms of local rationality that are 'reading and writing', rather than acquiring a set of abstracted or essential competencies. Here is another example drawn from a classroom of kindergarten students four months into their formal school careers, that is, aged about five to five and a half years. One of the students, Zak, has an outstanding array of literacy competencies and has taken, even in these early days of his schooling, to cruising and helping the other students, not always to the delight of the teacher:

t: (to J) Well, how would you find out where it says *slobby*?

s(J): You'd look at *slobby*?

t: Well, how would you do that?

s: Ohh!!

s: It's easy.

s(J): Find, find the . . . find the person, like Zak

t: Yes, that's one way. You could go and ask Zak because he knows how to write *slobby*. But if Zak is busy, what else could you do?

s(J): Look on the board

t: Hmm. Where would we look C? No, just stay there and tell me . . .
Hmm. There? Where?

s(C): Next to the monster.

...

t: But how do you know that says *slobby*?

s(C): Because it has 's' (sounded).

t: So does this one.

s(C): 'Cause . . . 'cause () know cause it's got a 'b', two 'b's over there.

s(Z): And a 'o'.

t: Oh, that's a good idea Zak. Yes, you can look, for some other sounds that you can hear . . . *Slo* . . . *bby* . . . good boy.

(from Freebody & Dwyer, 1992)

We can note here that in the teacher's first two turns she asks and reformulates an apparently straight-forward question about how the student 'would' accomplish a reading task. However, there are at least two aspects of this request that the tagged student (J) seems to hear in an out-of-school manner. First the request is not for accomplishment in a practical sense but rather is to be heard as a request for display; second, the display is to be heard as individual not collective. Recall the 'what are you doing tonight?' example, and how its presuppositions need to be heard just as clearly as its explicit propositions. The other students seem to hear the exchange as excluding them from at least the initial display (in turns 4 and 5 two students indicate their bid for an answer but do not solve the task in the way that they might attempt in an out-of-school context); they intrude once an attempt has been made that receives some success. J responds as if she does not yet appreciate the particular ways in which the classroom is a 'virtual' reality, with a particular set of presuppositions behind each exchange. The other students do show some awareness of at least one aspect of that virtualness. In addition, the other students show awareness that their appropriately-timed intervention does not just constitute pragmatic problem-solving, but is rather potentially rewardable; indeed, the teacher, after all of C's work in locating features of the target word, ends up praising Zak for his contribution-on-the-run.

We can summarise this brief exchange in a more abstract way. The first attempt made by J to get the reading task done does not satisfy certain basic institutional specifications for the conduct of school-reading, in that it relies

on another person who is not the teacher, and in that it does not therefore constitute a test of J's knowledge. It is this test, of course, that is really going on, not a teacher's attempt to find a word on the board. These observations are reminiscent of findings reported by some cognitive psychologists who were interested in reading in the late 1970s and who expressed some concern that young students reported that they thought reading was something one did—aloud and as accurately as possible—in school. The psychologist's concern arose from the characterisation of this 'definition' as developmentally immature since it neglected the internal, cognitive-process aspects of reading, which was the psychologist's preferred definition. The practice of reading reported by the students was, in Heap's (1991) terms, what the students were held responsible for knowing how to do in the public arena of the classroom at least in the early years of formal schooling. Examining literacy events in early schooling (as in Baker, 1991 and Baker & Freebody, 1989) leads to the observation that the terms 'reading' and 'writing', therefore, act as glosses, covering a set of particular practices that are first not able to be described exhaustively in some theoretical sense and, second, given shape and significance differently in different institutional settings and at different moments within any one setting. Thus the local and distant authority relations that make up the organisation of social experience are not overlays to some essential, somehow *inside* all literacy activities, but rather are built into literacy practices at their definitional core from setting to setting.

If this suggestion is productive, then we ought to be able to find evidence of institutionalised versions of 'literacy' being taken for granted increasingly with the progression of the school years. Apart from classroom transcripts, another place to turn for such evidence is in the specifications of language and literacy competencies found in curriculum or assessment profiling policy documents. That is, looking at the other end of the schooling years we can seek to show how ideas about satisfactory 'standards of performance', for better or worse, might in fact be read as statements about institutionalised ways of acting and being. At the time of writing, Australian educators are debating the utility of national curriculum statements and performance profiles across the school curriculum areas. One of the more contentious areas in English language and literacy, in which the aim is to document

common-sensically determined criteria of acceptable performance on a scale with eight levels and performance categories of 'speaking and listening', 'reading and viewing' and 'writing'. Here are some examples from the draft scales: National English Profiles (draft, 1991)

Speaking and Listening

LEVEL 1:

- explores the possibilities and routines of school
- responds *appropriately* to non-verbal cues
- *observes agreed* ground rules in structured large group settings
- asks, accedes to and refuses requests in *appropriate* ways
- seeks clarification when something is not understood
- reads prepared material aloud with appropriate expression

LEVEL 2

- is tolerant of and responsive to others' contributions
- observes non-verbal conventions of spoken interaction in situations where Standard Australian English is required, e.g., by making eye contact as appropriate, and sitting or standing in positions and at distances from others that are acceptable and appropriate

LEVEL 3

- asserts own point of view or idea with determination and conviction, but without aggression, condescension or disrespect
- conveys a sense of genuine, active communication by, for example, sounding relaxed and spontaneous during a speech even though the speech was carefully rehearsed

Again, institutional appropriateness and the local rationality and moral order of the classroom are the inseparable contexts of English competence. The institutional preferences that are maintained by this casting of the competency 'English language use' explicitly support and reflexively validate and naturalise the interactive order of the school classroom. Later in the draft National Profiles for English, examples are given of texts that have

been graded to be at certain levels for each of the highest categories of performance. It is interesting that one of these examples at the very highest level of performance (level 8) in 'Speaking and Listening' involves the speaking notes for a presentation about the school subject English, offering an almost transparent opportunity to view the ultimate product, as deemed by the authors of the draft National Profiles for English, of the institutionalised subjectivity—the form of assessable practical consciousness that perfectly reflects the aspirations of the English curriculum. The example shows a selection from this illustrative text, stated to be attainable by only a small percentage of final-year high school students.

Example of level 8: *Speaking and Listening*

Card 1: When I think about English... I think of opportunities for self expression, personal... and *reflection* which has made me more aware.

Card 2: Writing is important in our lives and the English classroom offers us *many ideas* for writing in different ways. *Self expression* is encouraged and we are urged to express ourselves, communicate... with other *writing*... *discussing different issues*. *This way we develop* (sic) *our own opinions*.

Card 6: *Another world or to another view of the world... invited to visit. Experience vicariously through literature.*

Card 9: Through this experience I have learnt...*content...is as ...presentation*. I cannot cover everything English has offered me as I'm still discovering its significance. One thing I would like to stress is that not only is English... foundation of world wide communication but it provides the chance for growing adolescents to individually express personal feelings. It is *the* subject... creativity of ideas, imagination is allowed to flourish.

We can note that the final level of achievement of oral language entails the presentation of a self in which the apparent personal voice is consonant, morally, dispositionally, and stylistically, with the imperatives of the English curriculum. The process of conflation of competency with the local rationalities of the institution of schooling entails not only the claiming of particular traits for oneself ('more aware'), but also the presentation of oneself as *developing* within the parameters of the institution, just as did Zak and his peers when they were able to present their practical consciousness as

being that of learners-to-read. This student publicly notes himself (sic) as a 'growing adolescent', who is "being encouraged" and "still discovering" the significance of English.

Bourdieu(1974) has interpreted the effort directed toward naturalising institutionally shaped definitions of competency as being class-based and at the core of the culturally and economically reproductive functions of schooling—the process by which cultural gifts are systematically mistaken for academic or intellectual gifts. But it is perhaps more warranted at least for instances such as Example 10 to hear the strongly institutionalised version of generational discourse—the 'child of the curriculum', acknowledging him or herself as such, and giving an apparently spontaneous display of the inner, learning-by-the-curriculum self. As I have argued elsewhere (Freebody, 1992), it is this display of subjectivity that is sought in assessment, particularly but not exclusively in the school subject English, rather than a definable set of procedural competencies.

Learning and doing out-of-school

Traditionally the differences between school literacy learners and adults have been characterised in terms of learning styles, motivational patterns, self-concept. No doubt these are reasonable and prevalent accounts. But, as well, there are important differences in the *institutional position* of the school-child versus the adult literacy learner in the setting of learning, and the ways in which the *functions of the learning are projected* into the ordinary experiences of learning. One expression of this is in Bernstein's (1990) observation that educational discourses always dis-locate, re-locate and re-focus other out-of-school discourses into school 'knowledge'. These processes of recontextualisation—the way the activity and its uses are explicitly or implicitly reformed into the classroom experience—are shaped by the way the learning is related to the other aspects of learning in the curriculum and the relationships between and among teachers and students. That is, the way in which the nature and functions of literacy practices outside organised educational experiences is reshaped as it finds its way experientially into classroom talk, into written classroom materials, and into assessment practices is 'Subject Literacy'. In the case of real out-of-school 'literacy practices' the degree and nature of the use of written text is an open

question. An example in everyday 'functional literacy' is developed by Heap (1987). Let's say you want to use a new photocopier to copy a newspaper clipping. There is an instruction manual, and, as well, an abbreviated summary set of instructions. There are also many buttons with various pictures or icons on them. You know how the old copier worked but it was not of this type. There are at least three general lines you could follow:

1) Text-based or grounded functioning

You read the abbreviated summary set of instructions. You learn about the buttons, but you don't know how to lie the clipping on the glass. You read the table of contents in the Manual, locating and reading the section on 'document orientation'. You lie the clipping down and press one of the icon buttons. You succeed.

2) Text-aided functioning

You read the abbreviated summary set of instructions. You learn about the buttons, but you don't know how to lie the clipping on the glass. You read the table of contents in the Manual, but you cannot locate a section on 'document orientation'. What you find is a section that has some ambiguous drawings showing two ways of lying documents on the glass. On the basis of what you know about the old machine you pick one of the orientations and press one of the iconed buttons. You fail. One end has been chopped off. You choose the other orientation and try again, successfully.

[A case of Mikuleky's 'job literacy' practice, moving back and forth from the 'problem' to the text, knowing that the text contains both more than and less than you need to know for this particular problem at hand—you need to know the text-machine relation for this problem.]

3) Text-omitted functioning

You approach the machine, and on the basis of your (faulty) knowledge of the old machine, lie the document down (wrongly), but, just as you are about to make your first attempt, a library assistant passes by, corrects your efforts and pushes the button for you, resulting in immediate success.

These are circumstances and occasions in which any of these three is the 'most rational, functional, efficient' way to behave, even though, for *most*

literacy classroom sites and all literacy assessment sites, only option 1 counts. Thus the problem with our definitions of literacy, with classroom materials and interactive practices, and with assessment procedures, is that they all assume that writing and, in this case reading, are the most and only rational effective means for everyday life when written or materials are available. (Heap, 1987: 13). To that extent, classroom and assessments ignore the everyday practical reasoning in which literacy practices are embedded in most sites except school. This is a particularly tantalising point when you consider the rhetorical weight that is being placed on enhanced literacy competencies in the 'restructured workplace'—hence the relevance of the example. Is the person who goes off and reads and understands the whole manual, and, three days later, walks up to the machine trying to recall the bit about 'orientation' more or less functionally literate than the person who engages in text-aided functioning? This perspective is related to but not quite the same as Brice-Heath's (1983) point about literacy events always being embedded in oral events, and Bourdieu's (1991: 82) observation that language competence:

"which is acquired in a social context and through practice, is inseparable from the practical mastery of a usage of language and the *practical mastery of situations in which the usage of language is socially acceptable.*"

Therefore, the management and renewal of the social relations that configure everyday life and give it socio-political shape are intrinsically language tasks. With respect to adult literacy learning the issue of critical literacy has for a long time been more at the forefront of teachers' and systems' awareness. Nonetheless the critical positions that have been made available to both teacher and student in the process of becoming at least partly community literate make it difficult for all of us to perceive the intricate ways in which texts do the ideological work of justifying and naturalising important differences, or of universalising agenda that in fact serve narrow interests.

Conclusion

An awareness of how literacy is recruited, as a set of practices, as a highly lucrative marketable commodity, and as a symbol of freedom and affluence, can be developed through an examination of these patterns of absorption in fragile and highly contested multilingual environments, as has been

conducted by Hassanpour (1993) in the case of Kurdish literacy in Iraq, Iran and Turkey.

It is probably fair to say that there is now no such thing as a mono-lingual society. In Australia for example there are about 100 Aboriginal languages and over 120 non-English community languages. Thus there is a need to revisit persistently the significance and the efforts of literacy education in a culture that values the rhetoric of multi-culturalism and multi-lingualism. This is partly because literacy has the potential to enhance 'futures' for a diverse culture as much as to homogenise a culture; emphasise, and punctuate and even justify marginality; and even play a major part in killing off dialects, languages and eventually cultures. We, as adult educators, researchers or teacher educators know almost nothing, in a principled ethnographic sense, about Australian adults working in and around written texts in or out of school context (apart from Heath, 1983 and Street, 1984 there are virtually no studies of every day literacy practices available anywhere in the world). Note that I am not talking here about summary statements of 'need' or analyses of text registers, but rather of ethnographic accounts of the every day practical resources called upon in a literate community. Nonetheless we are building national curricula frameworks and universal assessment and reporting instruments, competently and in good faith, but with no principal warrant from an ethnography of social literacy practices.

Therefore three things follow:

- All of our assertions about real literacy use are in fact suggestions for further research in disguise
- We are never describing literacy activities, no matter how common-sensical our assertions may be. We are always prescribing, saying what should be, and so presenting ourselves as arbiters of what counts as literacy to a community that has not generally learned to read our announcements critically.
- Finally, we are not only prescribing literacy competencies; we are, by the version of literacy that I present to you here, projecting preferred 'forms of life' (Gee, 1990) or in Street's (1992) words, "building and projecting national

and personal culture". Whichever form of expression applies we are assembling a presentation of our own control of our clients' everyday lives.

REFERENCES

- Baker, C.D. 1991, 'Reading the texts of reading lessons', *Australian Journal of Reading*, no.14, 5-20.
- Baker, C.D. 1992, 'We've had this story before', Paper presented to the Working Conference on Critical Literacy, Griffith University, Brisbane.
- Baker, C.D. & Freebody, P. 1989, *Children's First School Books: Introductions to the Culture of Literacy*, Oxford, Blackwell.
- Bernstein, B. 1990, *Class, Codes and Control*, Vol.3, Routledge, London
- Bourdieu, P. 1974, 'The school as a conservative force', in J. Ebleton (ed.), *Contemporary Research in the Sociology of Education*, Methuen, London.
- Bourdieu, P. 1990, *Language and Symbolic Power*, Polity Press, London.
- Freebody, P. 1992, 'Inventing cultural-capitalist distinctions in the assessment of HSC English papers: coping with inflation in an age of 'literacy crisis'. In F. Christie (ed.) *Language as social practice*, Northern Territory of University Press, Darwin.
- Freebody, P. 1992, 'The Politics of Literacy: Classrooms, Curriculums and Assessments', Paper present to the Literacy Strand of the joint Australian and New Zealand Associations for Research in Education, Deakin University, Geelong, Victoria.
- Freebody, P. & Dwyer, B. 1992, 'Inventing disability in classroom talk routines', Paper presented to the New South Wales Special Education Annual Conference, Darling Harbour, NSW.
- Freebody, P. & Welch, A.R. 1993, *Knowledge, Culture and Power: International Perspectives on Literacy as Policy and Practice*, Falmer Press, London.
- French, P. & MacLure, M. 1979, 'Getting the right answer and getting the answer right', *Research in Education*, no.22, 1-23.
- Gee, J.P. 1990, *Social Linguistics and Literacies: Ideology in Discourse*, Falmer Press, London.

- Hassanpour, A. 1993, 'The pen and the sword: literacy, education and revolution in Kurdistan'. In P. Freebody & A.R. Welch (eds.) *Knowledge, Culture and Power: International Perspectives on Literacy as Policy and Practice*, Falmer Press, London.
- Heap, J.L. 1989, 'Effective functioning in daily life: a critique of concepts and surveys of functional literacy', Paper presented to the National Reading Association Conference, Tuscon, Arizona.
- Heap, J.L. 1991, 'A situated perspective on what counts as reading', in C.D. Baker & A. Luke (eds.) *Towards a Critical Sociology of Reading Pedegogy*, John Benjamin, Amsterdam.
- Heath, S.B. 1983, *Ways with Words*, CUP, Cambridge.
- Jenks, C. 1982, 'Constituting the child', introduction to C.Jenks (ed.) *The Sociology of Childhood: Essential Readings*, Batsford, London.
- Lee, J. 1991, 'Language and culture: the linguistic analysis of culture', in G. Button (ed.) *Ethnomethodology and the Social Sciences*, CUP, Cambridge.
- National Profiles for English* 1992, Melbourne Curriculum Corporation.
- Street, B.V. 1984, *Literacy in Theory and Practice*, CUP, Cambridge.
- Street, B.V. (in press) *Cross-Cultural Perspectives on Literacy*, CUP, Cambridge.
- Welch, A.R. & Freebody, P. 1993, 'Explanations of the current international literacy crisis', Introduction to Freedody and Welch (eds.) *Knowledge, Culture and Power: International Perspectives on Literacy as Policy and Practice*, Falmer Press, London.
- Willes, M.J. 1983, *Children into Pupils*, Routledge & Kegan Paul, London.

Being numerate: whose right? who's left?

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The rhetoric of the teaching of mathematics is that numeracy is the right of all of us. The romance is that if only we all taught a bit better and they learned a bit better numeracy for all could be achieved. The reality is that a great many people are disenfranchised from mathematics; they are, or they believe themselves to be, innumerate. The reality is that mathematics continues to be regarded as an efficient means of sorting people and, while this is one of the reasons more people need more access to it, it is also what prevents so many gaining access to it.

Numeracy: Whose right?

There is currently a strong demand for higher levels of numeracy within the community. This I can only endorse. I am convinced that through mathematics people can gain valuable personal power and pleasure. The links that continue to be made between mathematics and intelligence lead to mathematics being used to intimidate and mystify. Those who do not have the personal mathematical resources they need, or who believe they do not, are susceptible to economic, social and political manipulation.

It is not at all clear, however, when we talk of 'numeracy for all' that we all mean the same thing. Is the emphasis on *for*? Are we saying that numeracy should, individually and collectively, serve all interests equally? Are we saying that all people should have the opportunity to experience, participate in and benefit from mathematics? Are we saying that being numerate *has* the potential to enrich both physical and social aspects of our lives and, all people, children and adults, should experience mathematics in ways that enable this? Are we saying that no one should ever feel intimidated in the presence of mathematical ideas — even if they do not understand them?

I suspect that we are not. Indeed, even when considered within a social justice framework, numeracy and, more generally, mathematics are regarded as something demanded *of* the person rather than *for* the person. Mathematics serves to sort people for occupations many of which have only

a tenuous link to mathematics. As almost any adolescent will tell you, the true power of mathematics lies not in its usefulness in further education and employment but in its usefulness for getting into them. A major use of mathematics is as a *de facto* intelligence test and consequently as a filter between school and even quite unrelated further educational and occupational opportunities — to *get* jobs rather than to *do* jobs.

Mathematics is held in high regard in our community but this does seem more closely tied to its use in constructing and supporting privilege than to any of its other (mostly more benign) uses. There is a certain distinction in having survived the filtering processes associated with mathematics. Mathematically oriented disciplines and occupations are regarded as more prestigious than others and economic and social benefits accrue to those who enter them. Even amongst those with strong commitments to increasing levels of numeracy and widening access to mathematics, the hegemony of mathematics by which secure and high status futures are seen 'naturally' to accrue to the mathematically privileged is unproblematically supported. The dilemma for those with a concern for social justice is that once having sold mathematics as an investment in the future, we find it difficult to attack the very exclusionary practices that maintain that investment potential!

There is, however, a conflict between increasing levels of numeracy within our community and maintaining the prestige and privilege which accrues to a mathematical elite. Consider the formation of elites. Elites happen where the following beliefs exist:

- there is a quality (say, style) or a commodity (say, money) that some have but most don't, or at least not to a high level
- the quality is valuable, those with it are to be admired and rewarded more than those without it

and

- it is possible to tell the difference between those who do and those who don't have the quality.

In mathematics it is widely accepted that:

- some people have mathematical minds and others don't

- those with mathematical minds are simply brighter (in every way that matters), than those who do not

and

- mathematics is easily, objectively and therefore reliably assessed.

These three beliefs in combination enable mathematics to be used as a powerful tool for sorting the worthy from the unworthy. Clearly, if you belong to a present elite you may not be impressed by suggestions that any of these beliefs are suspect. And indeed the beliefs are widespread both in educational settings and in the broader community. But the maintenance of these beliefs, and the practices based on them, are in direct opposition to the kind of changes necessary for universal numeracy to become a reality.

Certain groups within the community are privileged by the way mathematics currently is constituted. And few people give up privilege easily. School and TAFE mathematics happens to select much the same people as did the now widely discredited IQ tests; it happens to select just the people we expect it to. And, as I have suggested, while this is a major reason why many educationally disadvantaged people must have increased access to personally powerful mathematics, it is precisely the reason why they don't. If everyone could talk mathematics there would be no prestige involved in doing so. The use of mathematics as a selection device may have increased participation in mathematics courses to the extent that virtually all students now study mathematics for the whole period of their schooling. As anyone who works in adult education could testify, however, this does not guarantee universal numeracy. Selection processes determine what constitutes secondary and post secondary mathematics and, by association, what constitutes numeracy, what is valued knowledge and what is valuable knowledge. It also determines who gets each and who's left out. For those of us who are committed to social justice this situation is unacceptable.

Who's left?

Far too many young people leave school with quite negative attitudes towards mathematics and their continued involvement with it. Some simply dislike the subject, others feel inadequate about it and still others feel it is irrelevant in their lives. A great many, even amongst those who 'passed'

mathematics all the way through their schooling, participated with reluctance and 'succeeded' by resorting to learning strategies which resulted in them being in no position to use mathematics productively once outside the classroom. A considerable proportion of those who continued to attend mathematics classes left mathematics long before they left school or TAFE. Those who were mathematically least well prepared by the end of their compulsory schooling, were also the least likely to learn more mathematics at school or in further education.

Until the quite recent past this situation was more or less accepted in educational circles. We were prepared to believe that negative attitudes towards mathematics were naturally linked to poor achievement and that these were more or less direct consequences either of differences in the person's biology or in the person's rearing. Notwithstanding some attempts to 'fix the person' or to overcome the effects of their 'disadvantaged' or stereotyping background, we were pretty well convinced that, in mathematics at least, some people simply 'had it' and others didn't.

The people who are not regarded as mathematically able and are least well prepared in mathematics are predominantly working class, they are also disproportionately female and members of certain ethnic and racial groups. Feelings of alienation from, or anxiety about, mathematics are so widely expressed that they are regarded as almost natural and normal and those who do find mathematics a rewarding experience are often considered peculiar. At the same time, negative attitudes to the subject and 'maths anxiety' are regarded as a pathology essentially for and of the 'mathematically less able'. This may appear somewhat contradictory but can be understood as an implicit acceptance that 'mathematical ability' is confined to a minority — those who are not female or working class or black. It is not peculiar for European and some Indo-Chinese middle class males to do mathematics, but for the rest of us it is, at the very least, a bit strange. It may call into questions our femininity, it may also call into question particular forms of masculinity.

Ironically, 'normal' behaviour (that is, the norm) is individualised and pathologised. We search for and find explanations in individual attributions and behaviours for poor attitudes and poor achievement in mathematics.

Thus for example, in mathematics, females *lack* self esteem or confidence, they *fear* success, they make *poor* choices, they *do not* understand or act in their own best interests, they achieve *less* well — all relative to males.

Several years ago, a colleague and I (see Kenway & Willis, 1990) became rather concerned at this phenomenon. We began to investigate and found to our surprise that almost exactly the same explanations were used to explain why working class students didn't benefit from their schooling as much as middle class students, why Aboriginal students didn't ..., why some students from migrant families didn't ..., why young people took drugs, got pregnant, smoked And we also found that more often than not these common-sense explanations of 'failure' did not stand up to scrutiny. Without wishing in anyway to deny the importance of a feeling good about oneself, this discourse blames the victim, setting up the attributions and behaviours of a minority of relatively privileged, typically Anglo middle class males as the norm against which all others are compared and become the negative other — to become equal is to become white, male, middle class, English background speaking.

This way of locating and explaining 'failure' is endemic in mathematics. So called 'disadvantaged' groups have the right to question the extent to which many of us, who are supposed to have their best interests at heart, remain silent in the presence of such subtle undermining.

There is, however, now some hope of changing these interpretations. There is a developing body of literature which documents how groups of students are differently positioned by mathematics. I do not mean that they are different and therefore differently positioned to benefit from mathematics, rather they are differently positioned *by* mathematics. Let me give you two examples of this based on analysis of textbooks:

A widely used Australian primary mathematics text series had clearly attempted to be non-sexist. The language and illustrations were, for the most part, non-sexist and considerable effort was made to make the number of boys and girls in the texts equal and to involve them equally and actively in real world mathematics. However, an analysis of the representations of adults, provided quite a different picture. Almost all women (except teachers) are referred to as mum or grandma, the tuckshop lady or the

butcher's wife, almost always cooking or shopping, certainly in service to the children. They are rarely given a name. Men, on the other hand, are occasionally called dad, but are mostly given names and described in terms of their job. Men have and handle more money. For example, we have the male characters buying and selling cars, some quite expensive, with considerable emphasis on profit making, while the only female character who is considered in this regard does not have a name, being addressed as mum. Mum is saving to buy a modest car, no profitable deals or risk taking for her. While mathematics is important for all students, perhaps lower levels of mathematics are sufficient for women's work.

That the publishers of these books made an obvious effort to remove sexism and that no teacher we asked reported having noticed any problems in the books, suggests just how deeply embedded, almost inaccessible, such beliefs are. This may help to explain why girls and boys and their parents and teachers can accommodate both the belief that mathematics is equally important for girls and boys and the belief that it is more important for adult men than adult women.

Paul Dowling (1991) has carried out a similar analysis of a British secondary mathematics series. Some booklets were intended as 'extension' for higher achieving students, others were 'basic' for lower achieving students. The style and content of the books quite clearly anticipate a different ideal reader. From the covers of the books, to the activities and illustrations inside, to the nature of the jokes, to the distinction between the manual and the cerebral, it is clear that the books for the 'less able' are directed at students who are 'low social class', while those for the 'more able' are directed at students who are 'high social class'. As Dowling argues, the textbooks effectively define or construct equivalences between mathematical ability and social class.

As with the gendering of mathematics ... these are not roles that the subjects can choose to play or not to play, they define what it means to be high or low 'ability' and this has to do with *social* and not *cognitive* 'qualities'.

Girls and young women are less likely than boys and young men to be challenged in mathematics and more likely to be protected from risk (see, for

example, Fennema & Peterson, 1986; Leder, 1987). This is also so for working class children as compared to middle class children and black as compared to white children (see, for example, Reys & Stanic, 1988). In each case, questions directed at the former group of students will be more knowledge based and less problem oriented, more closed and less open; there will be less wait time for an answer and a greater assumption of misunderstanding. It seems that our views of who can 'handle' challenge in mathematics are sexist, classist and racist!

I will not elaborate on these matters. My purpose in reminding you that mathematics textbooks and classroom practices are involved in producing social inequality, is not to lay blame or even to suggest that they are the *cause* of gendered, classist, racist patterns of experience with mathematics. Rather these demonstrate how people are differently positioned with respect to mathematics and that sufficient change is unlikely to occur at the level of the individual — whether teacher or student — or even by the cumulative effect of many individual teachers and students. What is needed is a much more collective attack on the practices that prevent numeracy for all.

Being numerate

I have argued that mathematics is deeply implicated in social inequality. Many providers of adult education are only too aware of this and consider that they can best help their students by ensuring that they become some of the success stories of the process. Unfortunately, the means by which we assist people get through 'the system' can perpetuate the circumstances which caused their mathematical disadvantage and provide them with very little that is useful beyond selection. I have some sympathy with those who argue that for many people selection is the issue, that a 'good' mathematics education hardly seems to count by comparison with a good job, and that their most mathematically vulnerable adult students are the least likely subjects for 'experiments' in changing educational and employment practices.

Very often, alleviation of the worst symptoms of an inadequate preparation in mathematics does seem to be all we have to offer within the resources available to us. Helping students acquire routines sufficient to get them through a series of tests seems as much as we can do. We should not,

however, pretend to ourselves, to our students, or for that matter to those who provide the funding for adult numeracy programs, that when we provide this kind of support for students we are developing their *numeracy*.

Being numerate, at the very least, is about being able to use mathematics — at work, at home, and for participation in community or civic life. This rather modest proposition is unlikely to meet with much disagreement — it is, indeed, the 'empowerment' rhetoric associated with many initiatives for adult numeracy. Nevertheless, to take it seriously would have dramatic consequences for the practice of mathematics education in a great many educational settings. It would suggest that numeracy is not about the acquisition of even a large number of decontextualised mathematical facts and procedures. Neither is it about learning mathematics for its own sake although, for cultural reasons, one may wish that more people 'knew' mathematics. And it certainly is not about getting through selection processes. It would suggest that numeracy is about practical knowledge where practical should not be confused with low level, 'hands on' or procedural knowledge. I am using the term 'practical knowledge' here to refer to knowledge which has its origins and/or importance in the physical or social world rather than in the conceptual field of mathematics itself:

Practical learning may be hands on or cerebral, it may be intellectually challenging or not, and it may draw on theoretical knowledge or not. It is the source of the problem and the way of judging the usefulness of the solution that determine the practicality of a task.

(Willis, 1990, p 52)

What does being able to use mathematics involve? Let me address this by focusing on a single aspect of numeracy, the use of formulae.

Recently I was asked to comment on an adult numeracy scale (Griffin, 1991) which identified various levels of numeracy within three strands. I noted that calculating the area of a rectangle given the lengths of the sides was placed at Measurement level F (that is, the sixth level) while calculating the area of a circle given the formula and radius was placed at Measurement level I (that is, the ninth and, on this scale, top level). The listing of these formula in the scale and even their placement is unsurprising; it matches conventional teaching sequences in schools and TAFE fairly well. Indeed, a

careful look at the scale suggests that progression through levels of numeracy was equated with progression through a fairly conventional mathematics curriculum sequence.

I believe that many presently educationally and occupationally disadvantaged people could be assisted by the careful enunciation of what it is they need to know and be able to do in order to carry out certain roles, particularly if this is accompanied by pedagogically sound means of helping them learn to do these things and valid means of documenting what they have learned. And such thinking underpins much of the current interest in developing adult numeracy scales. Identifying levels of numeracy with the progressive acquisition of lists of apparently unrelated mathematical facts and skills, however, is likely to be unhelpful in this regard. Indeed, it perpetuates precisely the thinking about numeracy, about learning, and about what is practical knowledge in mathematics that has resulted in so many adults feeling and being inadequately prepared in mathematics.

I found the identification of the calculation of areas of rectangles and circles as competencies at the sixth and ninth Measurement levels, respectively, quite troublesome for what it suggested about the conceptualisation of 'levels of numeracy'. At the risk, therefore, of appearing to unfairly labour a detail in a scale which at the time of writing was yet to be revised, I will continue with this example.

As I have said, numeracy is about using mathematics. Any scale purporting to describe the competencies involved at various levels of numeracy should, therefore, in some way describe levels of use of mathematics. Having moved a numeracy level ought then to indicate that there is a class of tasks (applications) which are now accessible to the person and previously weren't. They ought now to be able to deal with practical situations/solve practical problems which they couldn't before.

Given this criteria, it is not at all clear that knowing how to calculate the area of a circle is a competency which can be identified with changing a level. Indeed, recently I tried to find applications of the formula for the area of a circle and found it almost impossible. As someone who both teaches mathematics and develops curriculum, I found this not a little disconcerting. Since then, I have asked many people for sensible uses of the formulae

which did not require other mathematical knowledge beyond the ninth level of the scale. Generally, they have begun to describe applications only to retreat in dismay when unable to offer anything sensible. Suggestions tended towards such things as finding the amount of fabric needed for a circular skirt — for the uninitiated, you purchase fabric by length. Another example was finding how much lawn seed was needed for a circular lawn. Given the level of approximation involved in broadcasting seed, and the small likelihood that a lawn would be precisely circular, to find the area of the circle rather than, for example, 'a bit less than' the area of the surrounding square or rectangle would be a good indication of innumeracy! From the dozen or so groups of people I have asked for examples, has come one application that the groups were themselves prepared to accept as a sensible application and it involved a quite specialised task for one trade. Given this, it is difficult to see why the calculation of the area of a circle ($A = \pi r^2$) is privileged over the calculation of the number of metres an object has fallen t seconds after it is dropped ($d = 4.9t^2$) and many other analogous formulae. This does not mean that the formula for the area of a circle is not important. It has theoretical and historical significance in mathematics, and it also has many practical applications, for example, involving volumes of cylinders and cones. But volumes of cylinders and cones do not appear in the scale at all, it seems that a person who is at the ninth level of the scale is not expected to be able to deal with these. Acquiring the ability to calculate the area of a circle appears not, either of itself or when combined with the other competencies in the ninth level, to add to the repertoire of situations or tasks with which a person can deal. Contrary to our common sense about 'what counts' as progress in numeracy, it is difficult to justify the inclusion of the calculation of areas of circles as a competency indicating an increased level of numeracy.

The difference in placement of the two area formulae reflect the conventional wisdom that areas of circles are 'harder' than areas of rectangles which lead to them being taught 'later'. Certainly, if a student is expected to understand why these area formulae are as they are, then rectangles and circles do make different conceptual demands. If the general concept of area is understood, that the area of a rectangle can be found by multiplying the lengths of adjacent sides is reasonably easily understood as

repeated addition *so long as the lengths of the sides are whole numbers*. Of course, in many practical contexts the meaning of the task will provide the strategy (e.g. a floor requiring 21 tiles across and 16 tiles down will require 21 lots of 16 tiles or 21×16 tiles) and thinking about areas, rectangles and associated formulae in abstract terms is likely to make the task more, not less, difficult. Once we go beyond whole numbers, however, the situation changes and this is where the generalised formula becomes helpful. It is also where the conceptual demands involved in understanding the formula increases and quite markedly so. Indeed, while it is possible to explain why the area of a rectangle of dimensions 3.76 m and 4.38 m can be found by multiplying the two numbers, the explanation may be well beyond the student who has only the other mathematical knowledge indicated by the sixth level on the scale. Similarly, an understanding of why the area of a circle of radius r is πr^2 requires an understanding of limits which certainly is beyond the ninth level on the scale. What tends to happen is that these formulae are introduced without explanation (here it is and this is how you use it) or with some attempt to persuade students that the formulae provide answers which are close to what you would expect were you to estimate the areas by some other means and that there are explanations available as to why 'they must be so' (here it is, it kind of makes sense, and here is how you use it). For neither approach is it obvious that areas of rectangles are conceptually easier than areas of circles.

An alternative explanation of why the calculation of areas of circles is 'harder' than rectangles is the nature of the formulae themselves. Using the circle formulae *is* more computationally demanding¹ than using the rectangle formula and, in this sense, the distinction is an historical one. This is now a somewhat outdated concern, still, using the formula for the circle involves the multiplication of three numbers rather than two. To perform the calculation 'by hand' or with a basic four function calculator, requires the interpretation of the symbol for squaring (r^2 means $r \times r$), recognition of the symbol π and knowledge of an approximate value for it. Should a scientific calculator be used, then somewhat more sophisticated entry skills will be required for the circle than for the rectangle. These interpretative and entry skills are important. They should be identified and taught. *They* are much

more likely to be associated with changing levels of numeracy (although they still would not define them) than two specific formulae.

Recently, I read the *National Competency Standards* (National Training Board, 1992) and, although I had reservations about many aspects of the document, I was impressed by the expectation that competencies were to "focus on what is expected of the employee in the workplace ... [and capture] the ability to apply skills in new situations and changing work organisation, rather than simply reflecting the tasks currently performed" (p 29). Some time afterwards, I perused a range of TAFE mathematics units (for prospective butchers, for prospective cooks, and so on) which were supposed to be consistent with the *Standards*. The unit for butchers consisted of learning how to do such things as cost a carcass. A formula or procedure was provided, followed by a worked example in which all the necessary data were provided, and the thing to be learned was how to put this information in the formula in order to carry out the necessary computations. The kitchen mathematics unit was similarly structured, as were several others. Each of the courses was, in my view, exactly the same in form *and* in content. Why were there so many units? Surely one would do the job. Would we seriously argue that the person who had passed the kitchen mathematics course couldn't also be deemed to have passed the butcher mathematics course? A more suspicious person than I might think this to be a case of restrictive work practices. Whatever it is, it isn't a case of multi-skilling or transferability of skills. The courses involved quite narrowly defined skills and the pedagogy involved actually worked against transferability.

The common justification offered for the proliferation of such units is that they should be practical and relevant to the context in which students are to function. And this seems reasonable enough. Unfortunately, it isn't what happens in mathematics courses, even in the 'practical' and 'relevant' mathematics courses designed for what are regarded as mathematically less able students. The *National Competency Standards* suggest that the evidence of having achieved the competency "should indicate the contexts in which an individual would need to be assessed as possessing the full competency ... including having transferable skills" and "what types of environment ... are required to establish competency" (p 33). I was taken aback, however, to

find that for these courses the 'context' for assessment was described as 'timed, written classroom tests'. (Is that an implicit acknowledgment that the purpose of the course is getting the job not doing it?) There was nothing which located the courses in their 'beyond the classroom' contexts. It is difficult to provide such opportunities and I am not suggesting that courses must or can be assessed in the actual workplace but, rather, that any argument that these courses are more practical, realistic or contextualised because they involve the language and specific formulae of 'the butcher shop' or 'the kitchen' is quite spurious. The only idiosyncratic features of these courses were the data to be substituted in the formulae and the students did not learn how to decide what information to substitute in or how to find it — all the information was provided, no more and no less. There was little or no attempt even to simulate or approximate real working conditions.

There is a widespread view that you have added something to your mathematical repertoire, that you have become more knowing and able, when you have 'learned' a new formula and, furthermore, that each formula has to be learned anew. Ironically, the decontextualised nature of many mathematics courses in schools and TAFE often is justified on the grounds that the alternative is the proliferation of specialised courses with little transferability. And yet, many of these mathematics courses also treat each new formula in isolation with little attention to transferability. A more helpful focus for numeracy would lie with developing 'formula sense' (see also 'symbol sense' in Fey, 1990).

Learning to use formula, in general, is an important aspect of numeracy in a way that learning particular formulae is not. With respect to formula sense, we could think of levels of competency something like this:

- 1 Can reliably substitute in a familiar formula which uses familiar quantities and units for use in familiar situations. This would involve sequencing calculations correctly, taking into account orders of operation for the calculator they use, and correctly stating units.

- 2a Can apply a familiar formula to an unfamiliar situation. This would involve gathering the necessary information, checking that units are appropriate and reliably substituting in the formula.
- 2b Can read and substitute in an unfamiliar formulae which relates familiar quantities and units. This includes being able to work out what information you need in order to use the formula and getting the units right.
- 2c Can select/retrieve from published sources a formula which relates specified quantities that are to be determined or related to each other.
- 3a Can read and substitute in an unfamiliar formula which may require interpreting unfamiliar concepts or notations.
- 3b Can rearrange the elements of a formula into a more useful form for use. This may involve ordering of computations or 'changing the subject' ('transposition'). This may involve making decisions about units.
- 4 Can comment on and use the relationships between the quantities in a formula (that is, the type of variation involved). This would include simple dimension analysis and being able to distinguish formulae by dimensions.
- 5 Can decide whether a particular formulae was/will be useful in particular circumstances, evaluate the assumptions involved in using the formulae and make adjustments to a formula to suit the context.

This is a first effort and quite tentative. Level 2 may or may not be ordered, there may be more, fewer or different levels and the order may be wrong! Nevertheless, I believe it focuses upon competencies which are significantly more powerful and practical than learning to use particular formulae. The first two levels, of course, encompass calculating the areas of rectangles and circles and what was in each of the butcher and kitchen mathematics courses.

The above list also goes considerably beyond what is often regarded as basic adult numeracy and many would argue that their students would find it too difficult. Indeed, a second common justification of the proliferation of courses such as 'maths for butchers' is that students are incapable of understanding the general principles and will not develop the needed skills any other way than by drill and practice in the special case. I think, that with the rare exception of students who have specific intellectual disabilities, this is simply not true and that such justifications are based on classist, sexist and racist views about intellect and ability. Consider the following list of formulae:

Some formulas

$s = 9.81t$ Shows how the speed, s , in metres per second of a falling body is related to the time, t in seconds, for which it has been falling.

$A = \pi r^2$ Shows how the area of a circle A , is related to its radius, r .

$d = 4.9t^2$ Shows how the distance a body has fallen, d metres, is related to the time, t seconds, it has been falling.

$B = \frac{1}{2}L$ Shows how the breadth, B , and length, L , of rectangles are related if all the rectangles have an area of 36 sq. units.

$S = 6L^2$ Shows how the surface area, S , of a cube is related to the length, l , of its edges.

$B = \frac{1}{4}F$ Shows how the mass of butter, B , necessary in a type of pastry is related to the mass of flour, F .

$Q = 150 - 10t$ Shows how the quantity of water, Q , in a tank is related to time, t , when water runs out of the tank at a rate of 10 litres per minute and the tank held 150 litres to start with.

$V = \frac{1}{p}$ Shows the volume, V , of a certain amount of gas as the pressure, p , varies.

I have on several occasions asked students to investigate a list such as this. Young adults who left school before or in year 10, and who regarded themselves as failures in mathematics, classified the formulae in various ways, and considered the purposes which could be served by different classifications and what a mathematical classification might look like. They, and students as young as thirteen and fourteen years of age, classified these formulae into three groups which they thought would have similar graphs (those which are lines, those like x^2 and those like $\frac{1}{x}$). They tested their classification, studied the relationships, and described, in everyday language, the type of variation involved within each group.

Within a relatively short period, these students started to 'see' that formulae tell you a great deal about the relationships between quantities even when you know nothing about where they come from. They were, without calculating, prepared to predict that if you double the radius of a circle you must quadruple its area (as for a square), and, similarly, if you double the dimensions of a cube you also double its surface area. Amazingly, many also saw by formula analogy rather than calculation, that if you double the time an object has been falling, you quadruple the distance it has fallen. Thus they generalised to quite a different context, one which does not obviously connect with area and which is less intuitively obvious. More importantly, they began to develop a sense of mathematics making sense and of themselves as being able to make that sense.

Many approaches to numeracy and to 'practical mathematics' keep learners locked into a dependency state. We say they cannot understand, and we think we mean that they are unable to understand when we actually mean we will not allow them to — that they *may* not understand. The knowledge they need to become independent is withheld. This is a problem for all students but there is reason to believe that it is a greater problem for students from certain social groupings. Often 'meaning' is actually withheld from some of our students on the basis that 'it will confuse them'. Such students are more likely to be working class than middle class, black than white, female than male. They are also more likely to be those who have experienced the least success in mathematics in the past. Such students must struggle to make sense of mathematics based on clues which are at best partial and at worst misleading. They are forced to conclude either that

mathematics is meaningless or they are incapable of making meaning in mathematics. As a result there is no alternative to mathematics becoming a mindless memory task. This is unlikely to assist them to become and to be increasingly numerate.

Conclusion

There are, of course, continuing demands that we must raise the levels of numeracy in our community. Ironically, while the present call for higher levels of numeracy is based on assumptions about the intrinsic usefulness of mathematics, narrowly traditional ways of defining the subject and success within it, an implicit acceptance of the 'naturalness' of the mathematical meritocracy, and the use of mathematics as a filter prevent any real change.

I focused in the latter section on just two 'competencies' in one numeracy scale. The problem is not, however, with these two competencies but with the conceptualisation of numeracy which led to them and which leads to many similar attempts to identify numeracy with the acquisition of a detailed list of mathematical skills sequenced much as are many school curricula. The worst rather than the best features of school mathematics are embodied within such lists; the very features which cause so many students so many problems and which, I argue, result in the need for adult numeracy programs.

Thus, 'numeracy' acts on our students not for them. It becomes a series of hoops through which they jump in order to prove their worthiness. Invidiously, they are compared on mathematical skills and concepts which are more related to history and habit than to the needs of a modern workplace or family and community life. Failure to develop such skills may, nonetheless, be sufficient to ensure that they are prevented from participating in further education or employment.

REFERENCES

- Dowling, P. 1991, Gender, class, and subjectivity in mathematics: a critique of Humpty Dumpty, *For the learning of mathematics*, 11, 1, 2-8.
- Fennema, E. & Peterson, P. 1986, Teacher student interactions and sex-related differences in learning mathematics, *Teaching and Teacher Education*, 2, 1, 19-42.

Fey, J. 1990, Quantity, in L. A. Steen (ed) *On the shoulder of giants: new approaches to numeracy*, National Academy Press, Washington.

Griffin, P. & Forward, A. 1991, *Adult literacy and numeracy competency scales*, Assessment Research Centre, Philip Institute of Technology, Victoria.

Kenway, J. & Willis, S. 1990, *Hearts and minds: self esteem and the schooling of girls*, Falmer Press, Sussex, UK.

Leder, G. 1987, Teacher student interactions: a case study, *Educational Studies in Mathematics*, 18, 255-271.

National Training Board 1992, *National Competency Standards: Policy and guidelines*, Canberra.

Reys, L. & Stanic, G. 1988, Race, sex, socioeconomic status and mathematics, *Journal for Research in Mathematics education*, 19, 1, 26-43.

Willis, S. 1990, *Science and mathematics in the formative years*, Department of the Prime Minister and Cabinet, Prime Minister's Science Council, AGPS, Canberra.

'My six year old nephew still occasionally confuses, for example, 13 and 31 and is just learning to enter numbers in a calculator by entering digits from left to right. Nevertheless, under the guise of having him 'help me with my work' I was able to teach him in ten minutes to reliably punch the right sequence of keys to find the area of a circle given a radius. A week later he had 'forgotten' but this time it only took a minute to remind him whereupon he could do as many as I gave him. A week later he had forgotten again but was easily reminded. Fortunately or unfortunately, by this time he was no longer interested. What would his capacity to 'calculate the area of a circle of any radius given an appropriate formula' say about his level of numeracy?

Address to the ACAL forum

Dr Paul Brock

Thank you for inviting me to participate in today's forum. I have been asked to speak about the Ministerial 'Reference' which the Australian Language and Literacy Council has received from Minister Beazley to review the "adult English language and literacy provision currently offered by the community based education sector, and a consideration of the role the sector could play in this provision in the future, including a consideration of cost recovery issues".

But in order to do this I should commence with some explanatory comments about the Australian Language and Literacy Council.

I must point out that I am not speaking 'on behalf of' the Council, as such, nor should I be presumed to be prophesying Council's formal recommendations and decisions.

Formation of the Australian Language and Literacy Council was one of the commitments made in the Commonwealth Government's White Paper, *Australia's Language: The Australian Language and Literacy Policy* in September, 1991.

The then Minister of Employment, Education and Training, John Dawkins, formally announced in November that this advisory body would be established as a fifth Council of the National Board of Employment, Education and Training in addition to NBEET's other Councils, viz, the Higher Education Council, the Australian Research Council, the Schools Council, and the Employment and Skills Formation Council.

The Councils, through the National Board, provide the Minister with advice independent from that of his Department of Employment, Education and Training.

The Council has three major roles:

- to provide policy advice, including advice on priorities, strategies and targets, relevant to the implementation and further development of *The Australian Language and Literacy Policy*

• to establish links between business, industry, governments, unions and all education sectors to promote awareness of needs for literacy, ESL, languages other than English and Aboriginal languages, and to advise on appropriate strategies

• to monitor and advise on the effectiveness of *The Australian Language and Literacy Policy*

The Council first met in February this year and has met on five other occasions since then. The Council has an annual budget of close to half a million dollars.

The work of the Council is based upon the four goals of *The Australian Language and Literacy Policy*:

- All Australians should develop and maintain effective literacy in English to enable them to participate in Australian society
- The learning of languages other than English must be substantially expanded and improved
- Those Aboriginal and Torres Strait Islander languages which are still transmitted should be maintained and developed, and those which are not should be recorded where appropriate
- Language services provided by interpreters and translators, the print and electronic media and libraries should be expanded and improved.

(Australia's Language: The Australian Language and Literacy Policy, AGPS, Canberra, 1991, p.4)

At its first meeting the Council received three specific References from Minister Beazley on which he sought our formal advice by December 30 this year. Council immediately established working parties to explore these References which are as follows.

1. An investigation and evaluation of different models of incorporating English language and literacy competencies into the standards being established by industry bodies under the Australian Standards Framework.
2. A collation and further development of existing information on business and industry needs for languages other than English and, in collaboration

with business and industry, a clearer definition of vocational language needs. This data will:

- inform strategic activities in language education and training programs in all education and training sectors
- assist Government education and training institutions and employers to develop appropriate incentives and publicly to ensure that:
 - a sufficient number of secondary, tertiary and adult education students are undertaking language studies
 - clear guidelines relating to occupation-specific language proficiency requirements are produced
 - employers recognise, utilise as appropriate and adequately reward existing language skills.

3. A review of the adult English language and literacy provision currently offered by the community-based education sector, and a consideration of the role the sector could play in this provision in the future, including considerations of cost recovery issues.

We advertised nationally, calling for submissions on the References. Out of over 70 received, 40 dealt in whole or in part with Reference 3. As you would know, a substantial response was received from ACAL.

The working party analysed these responses and commissioned reports from several consultants. It convened a two-day national seminar in Canberra in September to consider the issues raised by the consultants and in the submissions, as well as those arising from subsequent explorations and discussions.

The three themes of the national seminar were 'Quality, Access and Implementation'. Following upon these processes of consultation and review I prepared a paper for the Council which is now finalising its response to the Minister.

On October 23 the working party will be meeting to finalise a series of recommendations for Council's consideration and endorsement in November. This draft will then be submitted to the National Board for its December meeting. Once formal endorsement is received from the Board,

the Response with its recommendations will then be submitted to the Minister.

What I seek to do today is to traverse some of the issues confronting us as we enter this extremely important phase of final deliberation. Naturally, some of these were addressed in the ACAL submission.

Definition of the Community Based Education Sector

The issue of how to define the 'community-based education sector' has been, and remains, a vexed one. The definitional area is clouded as much by personal views and experience as it is by State/Territory and terminological variations. The word 'sector' is problematic since it may presume a homogeneity of nature and purpose and an exclusiveness of territorial boundaries that would be misleading.

Here is the definition of adult and community education arrived at, after extensive consultations and reflection, by the Senate Standing Committee on Employment, Education and Training in its report *Come in Cinderella*.

Adult and community education is an activity oriented towards lifelong learning which:

- makes provision for the recurrent vocational, personal, cultural and social development of people regardless of their employment status, who are beyond compulsory school age but are not primarily engaged in post-school education and training programs
- involves complex but coherent forms of cooperative learning geared to the adult status of its participants, and committed to their empowerment through skills acquisition, access to information and introduction to fields of knowledge
- is not necessarily constrained by the conventions of place, time and teaching/learning methods which may apply in the familiar settings of the school, TAFE college or university
- is fundamentally a learner-centred and needs-based practice, characterised by active concern for accessibility, democratic processes, social justice, and success measured primarily in terms relevant to the needs and aspirations of the individual participants.

(Come in Cinderella, p.175) In the context of this definition I would like to make the following observations and invite your response in this Forum.

1. There is a dilemma that is central to any discussion of the community-based education sector. It is to do with seeking a balance between insisting upon quality and accountability of provision, while not squashing the capacity to respond to local needs and to retain open access. An authority in the field of adult language and literacy provision in the sector has put the dilemma as follows: "how to legitimise the sector without institutionalising it".

2. It is important to acknowledge the vast diversity of programs which provide for the needs of people in adult literacy. The factors accounting for this diversity include the individual and communal needs of clients, the differences imposed by demographic diversity, and the often extremely different histories of socio-cultural traditions and policy guidelines within which community-based adult English language and literacy provision has operated in one state or territory as opposed to another.

3. It is essential to take account of the legitimate overlapping of relationships of the provision in adult English language and literacy between the community education and other non-private educational providers, in ways that transcend traditional sectoral boundaries.

The adult community education sector cannot claim a monopoly on responsiveness, flexibility, care, social justice, and so on. For example, language and literacy education provision which is excellent, and that which is not, can be found in all of the TAFE, the community-based, Skillshare, and the private education sectors. There is a serious need to avoid competitiveness and duplication between the TAFE, Skillshare and community providers.

4. Community-based education can vary significantly from one State/Territory to another. For example, the degree of cooperation, regulation and involvement in policy development varies considerably from state to state. This renders hazardous any attempt to make national sector-wide generalisations.

5. While those who advocate the professionalisation and maintenance of quality standards in the provision of adult literacy education at the national level within the sector, insisting that the role of the sector ought not to be defined in terms of providing Social Welfare, it is undeniable that issues of equity and social justice (or welfare) are of paramount significance in this field. Clearly, there are tensions here that need to be addressed.

6. The sector ought not to be defined merely in terms of what it is not, or what it cannot do, nor according to a 'what's left over when everything else is doled out to the formal sector.

A national framework of quality and accessible provision

The criteria for establishing and assessing the quality of provision should apply to *all* educational providers of adult English language and literacy education.

There are possibly multiple ways of organising, administering and supporting the community adult education sector in its provision of adult language and literacy. There is no one correct mode of provision.

But, governments, both State/Territory and Commonwealth, need to ensure that mechanisms are in place to provide the framework for effective state and national action in relation to addressing the needs of adult language and literacy education in Australia

Therefore, Council is considering whether we should recommend to the Minister the establishment of a set of nationally agreed principles or a framework which would underpin the provision of adult English language and literacy and which would cover all sectors, including that of community-based education.

Any such set of principles or framework would have to be inclusive of such factors as diversity and plurality which *Come in Cinderella* affirms to be central to the community education sector.

After reviewing the submissions and reflecting on the discussions and papers presented at the Seminar, I have suggested to Council that at least six interrelated areas would need to be taken into account when constructing any nationally consistent and accessible framework of quality provision of adult English language and literacy education:

1. An agreed national curriculum framework
2. Recognition arrangements for training and nationally agreed performance indicators for evaluation
3. Quality of teaching and professional development of staff
4. Clear guidelines concerning student access to these programs
5. Appropriate funding arrangements
6. The establishment of appropriate structures for implementation.

In the very short time available to me I wish to say a few things briefly about the first four of these issues.

1. An agreed national curriculum framework

The *Emerging National Curriculum in English Literacy for Adults Project* report of 1992 concluded that:

Curriculum development processes in adult literacy in most states and territories are in a disorganised and underdeveloped state. In a situation of limited resources, expansion of provision has often been preferred to the detriment of sustained, systematic curriculum development. The current demand for adult literacy curriculum relevant to vocational training agendas has highlighted the lack of appropriate accredited curriculum . . .

The report concluded that all states and territories adopt a national curriculum accreditation framework in which theoretical principles are made explicit and which addresses issues of assessment, reporting and statements of competency. (p.5)

A nationally agreed curriculum framework would provide parameters for a diversity of community education provision of English language and literacy within a national system. I have advised Council and such framework would have to be informed by:

- the AEC/MOVEET 'National Adult English Language and Literacy Strategic Framework'
- developments resulting from the Interim Literacy Course Matrix being appropriately modified and 'filled in' in each state and territory

- the 'Principles and Characteristics of Quality Adult Literacy Curriculum' developed by the *English Literacy for Adults Project: An Emerging National Curriculum*

The aims and objectives of programs based on such an agreed set of principles should be in accord with the concept of 'effective literacy' as defined and expanded in *Australia's Language: The Australian Language and Literacy Policy*.

I personally have confidence that the national "framework of key competencies in English language, literacy and numeracy for adult literacy and basic education and ESOL curriculum purposes" which will emerge from the ACTRAC 'National Framework for Adult English Language, Literacy and Numeracy Project', directed by Ms Sharon Coates will provide us with the framework which we need for this purpose.

It would be helpful for the Council to receive feedback on the proposal put to Council that English language and literacy curricula operating in all adult basic education, including that provided by the community education sector, set out to be explicit as to:

- theory of language and literacy and learning underpinning the specific curriculum
- its educational objectives
- operational principles of access, equity, and social justice
- diverse forms of pedagogy to be deployed
- what counts as 'achievement'
- modes of assessment used
- the qualifications of deliverers.

2. Recognition arrangements of training and nationally agreed performance indicators for evaluation

Two major initiatives which are now commencing in national policy will have a significant impact, in both the short and long term, upon the community-based education sector in general, and the issues of English language and literacy education provision in particular.

- The National Framework for Recognition of Training (NFROT) became operational on August 1 1992, but the set of changes will take a number of years to be fully implemented. Under NFROT principles there would be a system of mutual recognition nationally for any framework of training registered at the state/territory level according to nationally agreed upon principles and processes relating to course accreditation; credit transfer through recognised training programs; provider registration; and assessment and recognition of prior learning.
- The establishment of the Australian National Training Authority (ANTA) will have major implications for the community-based education sector.

National Framework for registration of providers

It has been put to the Council in one submission that it is imperative to establish:

a national registration for providers of adult literacy education and training with the whole Adult Basic Education (ABE) sector, incorporating TAFE, community education providers, Skillshare and private providers, in which the Commonwealth Department of Employment, Education and Training (DEET) would liaise closely with, and take account of, state and territory registration systems in the TAFE and Adult Community education sectors.

and that

only a provider which is able to satisfy the process of registration and which utilises the national framework for their curriculum would have access to designated government funds committed towards the achievement of national goals in language and literacy.

What do you feel about such proposals? And what about certification and articulation of pathways into certificate awarding courses? How much support is there for the recommendation of the English Literacy for Adults Project: An Emerging National Curriculum that

"All states and territories . . . develop by 1993 a Certificate level Adult Basic Education course which is formally accredited, is based on modules and articulates with accredited courses relevant to National Training Board competency standards". (p.5)

All sectors would be required to comply.

How far would you share the optimistic view expressed on one submission that with adequate training available, with maintenance of standards questions addressed in a formal process of registration and with a framework to guide the education effort and evaluation, the territorial disputation between the TAFE and community education sectors as to who is more 'qualified' to provide adult language and literacy would become a thing of the past?

3. Professional development for staff

The issues of teacher quality and evaluation must be considered in any national perspective of adult language and literacy provision.

Currently the Languages and Literacy Centre at the University of Technology, Sydney, is undertaking a project on the qualities which characterise the competent Adult Basic Education teacher. The findings of this project should make a significant contributions to this extremely important issue.

Professional development for adult literacy teachers in ALBE would appear to be inadequate in many states and territories. This is not peculiar to the community-based sector but applies equally to the TAFE sector, whose human resources are also stretched. Teachers are constantly challenged by changing needs of new client groups, the need to update their methodologies, and pressures from new and emerging government policies and priorities. Professional development is particularly important in the matters of induction, upgrading qualifications and peer support and exchange.

Do you support one proposal submitted to Council that:

all states and territories commit a minimum of 25% of their funding for adult English language and literacy provision to professional development and curriculum development and that budgeting should acknowledge any particular problems associated with provision in rural and remote areas.

and that

educational pathways should be made available which offer a coherent approach to adult language and literacy training, ranging from basic tutor training to graduate certificate level, and further tertiary study.

If so, how, and using what and whose resources? Who would pay for it all?

The payment of staff in community-based education is a contentious issue in a number of states and territories where there are discrepancies between the rates of pay for community coordinators, teachers tutors within the community based education sector and between the sectors delivering English language and literacy programs.

Volunteers

One particular area in which clear guidelines need to be established is that of the role played by volunteers in this sector. In its submission ACAL took quite a strong line on this matter.

ACAL believes that volunteers contribute greatly to existing adult literacy provision, but rejects any national system of provision which relies upon relatively untrained, poorly supported volunteer tutors. Volunteers in the community adult education sector or in TAFE must be regarded as an adjunct and extension to a professional service, and as an additional means of responding to diversity and a means of increasing the 'reach' of adult literacy programs for which resources will always be finite.

Is that a widely supported view?

In some places the roles of the volunteer is becoming increasingly focused on the management and infrastructural areas. But, in others, volunteers continue to play a vital role in tuition. In both cases there is a need to provide some financial assistance. Suggestions include assisting with transport costs, paid access to professional development programs, articulation of pathways from 'volunteer' to paid employment status, and the provision of professional backup.

I would welcome views on this somewhat controversial matter.

Staff access to information networks

An essential component of on-going professional development is providing teachers with access to a wider network of professional contact. A number of suggestions have been made here.

4. Clear guidelines concerning student access to these programs

I would like to conclude with a few comments about access and equity.

In my career as a school teacher, an academic, a ministerial consultant adviser, a member of one Curriculum and Assessment Committee (CURASS) of the Australian Education Council (AEC), and now an Adviser to a QANGO, I have often had occasion to observe the profound but very simple, even obvious, truth of what Ivan Illich in his book *Deschooling Society* described as the "institutionalising of value".

Putting it simply, what Illich meant by the term was that although institutions and/or bureaucracies are set up ostensibly, and often with great initial sincerity and idealism, to serve the needs of a client group, eventually the structures and infrastructure culture of such bodies end up—covertly and/or overtly—serving the needs of the staff. He provides illustrations from the institutions of schooling, and of medical and hospital care to illustrate his argument.

This is a recurring and ever-present danger and dilemma in all arenas of public policy.

I would maintain that in the professionalisation of any social, education, health or community service there must be vigilant and rigorous processes built into that institutionalisation and bureaucratisation which inevitably follow in the wake of such professional enhancement, to ensure that the clients' needs and their access to such services are not compromised by the upgrading of staff status and the financial benefit that are absolutely central to this process.

So, in this whole area of adult literacy provision, within any 'upgraded' and more 'quality' driven agenda, the clients will invariably enjoy far less political clout in the process of 'quality control' and institutionalising the education value, than will staff. The risks to openness of access are not insignificant.

Let me turn briefly to some specifics. With the AMEP's new emphasis upon recent arrivals there will be greater pressure upon the community education sector to provide English language and literacy tuition. The potential threat is there, therefore, for access to be denied to seriously 'disadvantaged' members of the Australian community who may be pushed down the 'queue' by the new 'market' for community adult language and literacy provision.

It is important to identify just who is missing out on access to adult literacy programs within the sector. It is also important to document those groups within the community who currently do enjoy access to these programs.

Here are some specific proposals that have been submitted to the Council on matters of access and equity.

- The criteria for access would be such that those with greatest disadvantage are not disqualified at the entry level. The sector's credibility has often been based upon its ready access for such people.
- Diversity of modes of delivery should be utilised: e.g. day, evening and weekend programs designed to cater for times of clients' availability.
- There should be recognition of the need to assimilate the diversity of purposes, some of which may not be readily labelled 'vocational', which adult language and literacy programs in the community education sector serve for their clients. Often these purposes, such as personal and social, become pathways into 'vocational' education and training.
- There should be no confusion between establishing a diverse range of points of access—which could include community health centres, welfare bodies such as refuges, juvenile justice processes, and so on—and points of education provision. But, at the same time, there must be strong links between points of access and provision.
- Under-utilised points of access, and potential points of provision should be activated: for example, public libraries represent a potentially very rich, but often seriously under-utilised, resource for adult literacy provision.
- Obvious barriers to access would be recognised and broken down: for example, childcare provision, access for people with disabilities, and

transport access to provision sites. Program location should be selected which has good access and visibility and which is conducive to social interaction, learning, privacy and quiet, as needed.

- Specific groups of people with special needs should be catered for. When constructing criteria for allocating funds and registering providers, consideration could even be given to apportioning special 'weighting' to providers which undertake provision for clients within especially disadvantaged groups. For example,

- those in rural and remote regions

- those exiting from AMEP programs after 510 hours of tuition but who have not acquired proficiency to ASLPR2 standard and who come to the CBE sector for further tuition.

- Aboriginal and Torres Strait Islander communities

Cost recovery

The issue of cost recovery is fundamentally a matter of access. Personally I support the view put to Council by the Australian Association of Adult and Community Education that "adult basic education should be provided at public expense". Compulsory primary and secondary schooling up to the age of 15 is provided free in order to allow all citizens to achieve a basic level of education.

I believe that adults who, for whatever reason, have not attained this basic level of accomplishment should not have to pay for it.

The issue of cost recovery for English language and literacy programs 'above' such a level is one for each sector and individual provider to decide upon.

This is in accord with ACAL's submission on the issue of cost recovery.

Time prevents my exploring the issues of funding and structures. For example, there is very strong support in submissions made to Council for three-year funding with annual reporting and accountability criteria. But I would be interested in your response to one controversial proposal put to us during consultations.

That current funding to community education be maintained at the level for the previous year (where such funding is above 25%), and that where such funding is not at 25%, states and territories should move over a three-year period to direct 25% of funds at minimum to the community sector.

Conclusion

I wish to stress again that I have not been speaking 'on behalf of' the Council in my remarks today to this forum. I have attempted, however, to give you a sense of the agendas currently facing the Council as it prepares to draft its report to the Minister on the provision of English language and literacy education within the adult and community education sector. There is much to be considered and written before we? During its short period of existence the Australian Language and Literacy Council has already established, both formally and informally, good links with the Australian Council for Adult Literacy. I welcome today's opportunity for us both to strengthen that relationship and I hope the the discussion following the presentation of our papers at this forum will provide the Council with further information and insight to enable it to provide Minister Beazley with the best policy advice on these issues of national importance in the provision of adult literacy.

From now to the year 2000

Adult and Community Education provision of Literacy, Numeracy and
English as a Second Language
(Abbreviated talk prepared for the ACAL Conference October 1992)

Anne Whyte

I've been asked to talk about developments in adult and community education (ACE) that are relevant to the ACE provision of literacy, numeracy and English as a second language - which amounts to talking about non-TAFE College and AMES provision of these programs. The views expressed are my own best guesses about the immediate future. They are what I think will happen. They are not necessarily what I want to happen.

1 Policy

Adult literacy, numeracy and ESL are an important part of ACE provision and one that ACE gives a high priority to. Thus, as national policy for ACE is developed through the AEC/MOVEET working party, and as the remaining state and territories without clear structures for ACE develop them, our role in the provision of adult literacy, numeracy and ESL will become more explicit. The AAACE has not only said that adult literacy, numeracy and ESL are priorities, we have also said that provision needs to be reviewed because some groups and areas are poorly served.

2 Structures

The structures and legislation that govern provision of adult literacy, numeracy and ESL in states and territories differ markedly. At one end of the continuum TAFE colleges have an almost exclusive command of provision - this is so in Queensland. At the other end, adult literacy, numeracy and ESL are the responsibility of adult education and provided through ACE centres and TAFE colleges. Victoria and Tasmania are examples of this. In NSW, South Australia and ACT, the bulk of provision is through TAFE colleges with a smaller amount occurring through ACE centres. In the Northern Territory provision is mainly through TAFE colleges and the Aboriginal college.

These differences are important because they locate responsibility for the planning and coordination and support of provision differently and directly effect the amount and type of resources available for provision

Our job over the next few years is not to make the systems uniform, although the Language and Literacy Council has flagged the concept of a national system, and it is under discussion. What does matter is to ensure that planning, coordination and support occur through whatever systems are in place. Everyone loves designing structures and they are often given a prominence they don't deserve. I believe the effort should go into clarifying what we want and what we're doing. Structures can follow and should simply serve, not dictate or influence our purposes. The new Australian National Training Authority is a good example - here we have a new structure being developed before everyone involved can clearly explain what it is to do.

In the short term we can exploit economic rationalism to our own ends, as it too is concerned with planned and coordinated provision because of the relationship between adult literacy, numeracy and ESL and a multi-skilled workforce. At present we're needed because government want our product - namely the capacity to educate and train adults. ACE will continue to run with this while the opportunity lasts.

3 Increased provision

This leads into my third point. The 600 or so ACE centres currently providing adult literacy and numeracy will continue to do so. An increasing number will add ESL to their repertoire as a flow on from the changes to AMES - an ill-considered reform in my view because the proposed system cannot ensure the quality of provision we had in the past and hard won industrial conditions could be lost. AMES itself wanted and suggested some changes were due, but the process to achieve them has been far from excellent.

4 Funding

Government subsidies for provision will remain but a policy to charge fees will apply to more advanced levels of adult literacy, numeracy and ESL. I doubt this will be done with the clarity required and predict that ACE

providers will use their autonomy to practise an intelligent level of civil disobedience to minimise inequities during the early years of the introduction of fees. Now let me turn to the students and then to the teachers.

5 Access and Equity

The ACE sector will remain responsible for providing access for those who know they want literacy, numeracy and/or ESL classes. With this comes a second important responsibility to make sure low key, informal and friendly programs are available for people not ready or able to enrol in adult literacy, numeracy and ESL courses. The sector has a constant responsibility to be inventive about overcoming barriers to participate and thus to running drop-in programs, conversation groups, play groups and other non-threatening programs that serve as return to learning programs for many.

6 Students

In the short term we'll see an increase in the number of younger students and male students. Students will be more explicit about their aspirations and more demanding. The impact of the TV literacy services will raise awareness and expectations. If we respond by being customer driven we will see a growth in longer, more intensive programs.

7 Pathways

Our programs will be expected to provide direct pathways to further education and employment and training.

8 Accreditation

More adult literacy, numeracy and ESL courses will be accredited. In fact, I expect 90% of all adult literacy courses to be accredited courses within three years.

9 Curriculum

This will be readily available in the public domain and literacy and ESL will lose their discrete identities at many levels. Developing and teaching the literacy, numeracy and ESL support modules for industry certificates will become an important responsibility.

10 Teachers

Increasingly teachers will have relevant specialist qualifications. Those in the system by virtue of skills and experience will find it increasingly hard to change jobs as they compete with qualified teachers - although the short term (3 - 5 years) labour shortage will ensure them work in the immediate future.

11 Professional Development

This will become more widely available and people will move from positions of isolation to ones of information overload. A few renegades will keep us all honest and defy well meaning attempts to bring them into networks. I knew one teacher in a tiny town outside Portland who hadn't opened a single piece of mail from the Ministry for six years. She kept it all, unopened in one of those old battle grey tin cupboards. She continued to enrol, teach and graduate students throughout the six years and the unopened mail was only discovered on her retirement.

12 Workplace Provision

This will boom and be monopolised by TAFE in the cities.

13 Inclusive Curriculum

Trade certificates and the Australian Vocational Certificate will adopt the industry certificate approach of including units of adult literacy, numeracy and ESL as part of the certificate.

14 The Finn, Mayer and Carmichael reforms

Finn and Mayer will pass into mainstream practices and become fairly invisible. Carmichael will grow in areas where the industry focus is a viable approach and gradually become blended with the existing systems.

15 Reporting

ACE will have to develop student reporting systems as soon as possible, and will be more regulated in terms of reporting to government for adult literacy, numeracy and ESL provision than TAFE colleges.

16 Debate about educational theory and practice within literacy, numeracy and ESL

This will continue to become more valuable as the contribution from research increases and awareness of different approaches grows. Splinter groups will emerge and while particular teaching methods and ideology will dominate practice, diversity will be maintained.

And so to summarise, ACE will have an increasing role in the provision of an increasingly regulated system of adult literacy, numeracy and ESL. The immediate challenge is to capitalise on this diversity of provision as important in its own right, while working astutely together for the overall growth and development of provision.

ANN WHYTE

President AAAC

October 1992

Community Literacy

Kay Schofield

Chief Executive Officer, South Australian Department of Employment and Technical and Further Education

I am pleased to be able to address you this morning on the issue of community provision of literacy training.

At the outset let me state my commitment to community literacy and define my perspective on the strengths of community provision. Community provision to me is about empowering people at the local level to have a key role in the shaping and delivery of language and literacy training which will most suit their needs. Dovetailed with this is the concept of community delivery—of providing the training in the community at locations and in the delivery mode most convenient and accessible for the client. Community provision at its best should strengthen the provision of language and literacy training and not be seen as just a cheaper alternative delivery system.

In taking part this morning in setting the agenda for the ensuing policy debate on community provision of language and literacy training, I intend to:

- tackle the simplification process and set some challenges for policy and decision makers
- state some basic questions to be answered in policy development
- mention some emerging management and governance issues in TAFE and their implications for community provision
- make some final observations for your consideration.

As you would be aware there is an alarming simplification by some government officials concerning the provision of language and literacy training. Whilst public sector reformers praise simplification for its ability to increase responsiveness of large organisations to their clients there is an inherent danger that a simple government bureaucratic decision may prove to be detrimental and destructive to the achievements and good practices of the past. Moreover, the simplification may not be conducive to an emerging

excellence of provision based not only on an argument of increasing productivity but also fairly and squarely on equity and social justice issues. In bald terms, what is the simplification I am referring to?

Literacy provision simplified

1. TAFE's role = provision of vocationally-based training
Non-TAFE providers' role = provision of non-vocational literacy training
2. Government funding should be directed to literacy provision to increase national productivity.
3. Moving the bulk of literacy provision to the community sector will result in substantial cost-savings to government.

To take these one at a time:

1. It is a false dichotomy to simplify literacy provision into a TAFE role for vocationally-based literacy training and for the balance of non-TAFE providers to focus on the provision of non-vocational literacy training. Embodied in this perspective is a dangerously narrow conception of literacy provision.

This is not to deny for a moment that the direction of TAFE systems at the national and state levels is focusing more on vocational and advanced skills courses. This is a quite right and proper direction.

However, within this new direction is the inescapable and desirable equity and social justice obligation for TAFE systems to maintain the second-chance option for the broad community and to include literacy training as inherent support for students in the full diversity of TAFE courses including those at the preparatory level.

Conversely, some of the non-TAFE providers, particularly the 'non profit' providers, may also see a role for themselves in literacy provision which is far broader than that for non-vocational outcomes only.

And finally on this point, in addressing a group of literacy experts, I am sure I do not need to dwell on the stultifying delineation between literacy for vocational outcomes as opposed to literacy provision for non-vocational outcomes.

2. If the education and training agenda is broadened to include literacy provision then it is true that increasing investment in education yields productivity growth. Since the mid 1980s, policy makers have shown a renewed interest in the linkage between education and productivity. Indeed, since 1987 and the release of the Report of the ACTU/Trade Development Commission Mission to Western Europe, known as *Australia Reconstructed*, there has been a veritable training revolution, and training is seen as part of both economic and social policy.

In this debate it is important to understand how the word 'training' had been broadened to 'skill formation' which includes, but is more comprehensive than, older concepts of training.

Skill formation means that the skills necessary to achieve competitive advantage will not be achieved by traditional approaches to training. Rather they are achieved in a variety of settings, formal and informal, structured and unstructured, on and off the job. Ideally, this flexible and diverse approach to skill formation can readily encompass literacy provision. But the challenge for policy makers and funding agents in the literacy training arena is to make the most constructive use possible of this broad view of skill formation for both the future economic prosperity and the health and well-being of the broader community.

A struggle in the skill formation debate in Australia is to encourage all Australian firms—not just a few outstanding examples—to support their employees to improve their productive skills. Too many of our industry colleagues see the testing for language and literacy as an effective and easy way of selecting people for their workforce.

So this overtly simple argument has subtleties and complexities which at worst can be used as a tool by government officials to narrow policy and funding provision and, at best, in the hands of skilful lobby groups and policy developers can result in a 'win-win': improved language and literacy provision *and* a more productive workforce.

3. It is undeniable that moving the bulk of language and literacy training provision from the TAFE system to the community can represent substantial cost-savings as no longer is it necessary to fund the large TAFE

infrastructure nor is there the necessity to be confined by the high TAFE award rates of pay. But again the dangers lie in the simplicity of the argument.

In considering the community provision of language and literacy training there are some basic questions which need to be asked:

- Is this the most cost-effective solution in the long term in both productivity and social justice terms?
- Does the community have the capacity, the skills, or the desire, to undertake this level of provision, in either the short or long term?
- What transition mechanisms will be developed to ensure the necessary support is in place and to monitor and evaluate outcomes in both quantitative and qualitative terms?

These questions need little further explanation. The first requires a willingness, an ability, and a method for taking a long term view. The second requires some hard questions—and some harder and probably uncomfortable answers—concerning the community's capacity. The third needs a commitment to improving the outcomes for language and literacy students in community provision.

I should say at this point, that TAFE is not being coyly protective of its existing role in the provision of language and literacy training. Indeed, nationally, there is a growing acceptance that TAFE is now one—albeit the major provider—amongst a diverse range of training providers. However, in South Australia in particular, I am encouraging the view in my Department that we are partners in training with these other providers, not just simple competitors.

Governance and management changes to TAFE and training

I would like to touch on *governance and management changes to TAFE and training* at the national and state levels and the implications for the community provision of language and literacy training.

Heads of government have agreed that there will be an Australian National Training Authority (ANTA). This will require a consideration of vocational education and training arrangements in each state and new state training

agencies will emerge which will oversight policy and planning at the state level. These changes are significant for ACAL and its planning and policy development in relation to the community provision for language and literacy training.

For instance, in the area of community adult education, a national joint working party (to be convened by the SA Department of Employment and TAFE on behalf of the Australian Education Council (AEC) and the Ministers of Vocational Education Employment and Training (MOVEET) will consider the implications of the Senate Standing Committee Report "Come in Cinderella" particularly in the light of the establishment of ANTA. The working party will consider a range of issues including the scope and boundaries of ANTA in relation to community adult education.

Related to these management and governance plans for the broader TAFE system will be issues such as the registration of providers and accreditation of courses. For the community provision of language and literacy training there is a strong need to develop some quality assurance and accountability practices, especially when dealing with government funding. The registration of providers and accreditation of courses certainly provides a mechanism to address these issues and yet must not be allowed to stifle or impede the diversity and responsiveness which is one of the great strengths of community provision. I see ACAL having an important role to play in assisting government in their consideration of these complex and very significant issues.

And, some final observations. .

1. Better co-ordination of effort is needed
2. Apply funding more strategically
3. Be advocates for the illiterate.

1. It is my perception that there is enormous scope for a better co-ordination of effort between agencies and providers at the national, state and local levels. This has implications for the policy developers and for the management and funding structures which accompany the policy.

2. There is also far more potential than is being realised currently for a strategic application of funding which can be used for say redressing areas of urgent need or under-recognised need, or which recognises and rewards innovation and good practice.

3. I am most concerned that in developing policy for community literacy we not lose sight of those with a comparatively weak advocacy base—the so-called 'illiterate'. I know that ACAL has been endeavouring to fill this role for these people and I would commend you in doing so.

I wish you well for the remainder of the conference. You have some difficult and challenging tasks ahead.

In my Department in SA we have developed the mission statement 'skilling SA for a prosperous and socially just future'. With effective community provision and literacy training I believe that we could also use this phrase nationally.

'New times' and literacies that matter

Colin Lankshear

Introduction

An indication of the advances made in adult literacy in Australia during the past 15 years is evident when we compare the range of issues and themes addressed in the first ACAL Conferences of 1977 and 1978 with that on parade at the 1992 conference.

Patrick Griffin and Anne Forwood remind us that at the initial conferences 'the topics under discussion related mainly to practical strategies for assisting adults to learn the skills to function in society, within a learning environment designed to accommodate the individual needs of the adult student' (1991: 8).

By contrast, we now find a much increased emphasis on theory and an impressive degree of theoretical sophistication. The emphasis on individual needs is balanced by an emphasis on consideration of group circumstances and requirements. Policy is debated and evaluated from diverse perspectives - theoretical, evaluative, institutional, etc. There is evidence of practices and forms of provision that are elaborate and well informed, and grounded in a wide range of institutional settings and types.

Today, while still short of the ideals we envisage, the adult literacy scene in Australia is, at least from an outsider's standpoint, impressive and sophisticated. This reflects a response, at the level of federal and state government awareness and policy, as well as within the many sites of practice and theory, to the increased urgency during the past two decades of addressing the complex literacy needs of an intricate society in a period of rapid and far reaching change: change which, as we will show, threatens as never before the tenability of adult life for those who lack command of text.

Yet, we are aware of continuing shortfalls in practice and theory, in official recognition and conceptualising of adult literacy needs, and in the levels of funding and infrastructure available. Adult literacy in Australia has indeed come a long way, in a relative hurry. But a key implication of our address is that there is no more serious, pressing, or complex educational focus in

developed countries today than adult literacy (or, perhaps, adult basic education which incorporates literacy). It is, frankly, paramount. We need innovative strategies informed by enlightened theory to undergird our practice.

This paper uses a sociological analysis of current economic and social trends within developed countries like Australia to overview the main forms of literacy requirements and to suggest useful ways of theorizing adult literacy under current conditions. We also take up insights from literacy theory to identify emphases and strategies within adult literacy work in the context of the emerging post-industrial order. Our aim is to contribute to literacy theory and strategies for meeting policy goals, by pointing to ways in which literacy requirements are changing, and by describing systematically the various types of literacy work needed to meet these changing requirements.

Our account is confined to addressing changing literacy demands within First World settings. The central thrust of the post-industrial economy calls for higher order literacies to be much more widespread in the population than ever before. High order literacies can no longer be confined to a small elite. Specifically, there is a strong demand for upskilling in the workplace across the entire workforce, but particularly across what might have been regarded as the bottom 50% (Thurow 1992: 52). In becoming dominant, these literacies have consequences for the ways in which groups of people become marginal, remain marginal or escape from marginality.

Our position has emerged from work we are doing for the New Zealand Qualifications Authority. This has allowed us to investigate new directions for post compulsory education called out by the impact of global economic and social trends on New Zealand in the present historical conjuncture. Not surprisingly, we are interested in Australia as well. Both countries are trading nations in the Asia Pacific rim. Both economies are still largely based on primary production and extractive activities which will no longer sustain the standard of living we have been accustomed to. In the move to higher value added production, and all the institutional adjustment entailed in that, both countries are experiencing high rates of unemployment. At the same time both countries are host to a diverse range of new migrants, and face drastic changes in the role of women with consequences for parenting and

family life, and renewed claims by indigenous peoples. Moreover, recent calls for closer trans-Tasman economic relations entail closer educational relations and mutual awareness of our respective systems of education, training and qualifications, and their capacity to meet current learning needs including, notably, literacy needs.

THEORETICAL FRAMEWORK

Our argument builds on a theoretical framework which has three parts.

1. We draw on work by James Gee (1991) to distinguish what might be called 'three levels of generality about language and literacy'.
2. We pick up Rob McCormack's (1991) idea of 'regions of literacy': differing literacies identified with a view to reconceptualising literacy in the wider context of adult basic education within 'new times'.
3. We invoke a view of self and identity (of individuals and groups) as constructions out of multiple discourses and subject positions.

Levels of Generality of Language and Literacy: an appropriation from Gee

Gee develops a conceptual map around the question 'what is literacy?' From this we have derived what we see as three levels of generality of language and literacy; what we call primary, secondary, and meta or tertiary level practices involving language and/or text.

Primary practices arise from face to face interactions which are immediate and intimate and do not require written texts.

Secondary practices involve a much wider discursive universe, extending to indirect and impersonal relationships, and to the gamut of issues, problems, concepts, and performances associated with the world of secondary institutions. At its widest extent this world is global.

Meta or tertiary practices which are essentially cognitive mark a higher order of generality still, since they are about rather than within primary and secondary practices.

To elaborate these further it is necessary to sketch several concepts and distinctions advanced by Gee. He defines literacy as "control of secondary uses of language (or uses of language in secondary discourses)". To be illiterate, then, is to lack control of uses of language in secondary discourses.

Discourses are modes or ways of being and experiencing, organised around socially constructed and accepted ways of using language and related ways of thinking, acting/behaving, valuing, feeling, believing, etc. By reference to the discourses we live in and through we can identify ourselves as members of socially meaningful groups or 'social networks' (Gee 1991: 3).

We encounter and develop our primary discourse through "face-to-face communication with intimates" (ibid: 7), or what sociologists call primary socialisation. Primary discourse is grounded in oral language, our primary use of language, which is pre literate. Through the process of enculturation among intimates we are inducted into using language, behaving, valuing, and believing to give a shape to our experience.

We develop secondary discourses "in association with and by having access to and practice with ... secondary institutions" beyond the family or primary socialising unit: e.g., school, church, workplace, clubs, bureaucracies, etc. (ibid: 8).

Secondary uses of language are those involved in participating in the discourses of secondary institutions: secondary discourses. These secondary uses build upon, but go beyond, those acquired within our primary discourse and include, notably, forms involving texts (printed, visual, electronic, etc.). Literacy, then, belongs to the level of secondary uses of language within secondary discourses.

Gee further distinguishes between 'acquisition' and 'learning' as fundamentally different modes of taking up discourses and literacies.

By 'acquisition' Gee means

a process of acquiring something subconsciously by exposure to models and a process of trial and error, without a process of formal teaching. It happens in natural settings which are meaningful and functional in the sense that the acquirers know that they need to acquire something in order to function and they in fact want to so function. This is how most people come to control their first language.

'Learning' indicates

a process that involves conscious knowledge gained through teaching, though not necessarily from someone officially designated a teacher. This teaching involves explanation and analysis, that is, breaking down the thing to be learned into its analytic parts. It inherently involves attaining, along with the matter being taught, some degree of metaknowledge about the matter. (ibid: 5)

This distinction between acquisition and learning is tied to another: namely, between linguistic and literate practices which essentially comprise performance and those characterised by processes of consciously knowing. According to Gee we perform better what we acquire, but we consciously know more about what we learn.

This underpins our differentiation of secondary and meta/tertiary practices involving text. It also, however, entails a pedagogical principle. To the extent that reading (as decoding and interpreting print) or writing (as encoding print and/or communicating) is a performance, 'literate' must stress acquisition. Pedagogically, this entails a process of exposure to a discourse; to a context in which reading and writing are regulated and acquired/taken up as identifiable practices appropriate to the discursive purpose in question. Data entry as (mere) performance might be approached as a workplace discursive process of acquisition.

To the extent that metalevel literacy skills are required, learning must predominate; e.g., understanding data entry as a discourse linked to wider discourses of production in order to troubleshoot data entry problems, evaluate existing data entry procedures, or alternatively (critically) to understand the way data entry monitors workers; or breaking a genre down into analytic parts, understanding the genre in relation to other genres, and its various parts in relation to the nature and purpose of the genre as a whole.

The difference between secondary and meta level literacy practices is crucial. Secondary uses of language occur within discursive practices in secondary institutional settings. Control of these constitutes literacy/literacies. At what we call the meta or tertiary level Gee talks of powerful literacy. This involves "control of a secondary use of language used in a secondary

discourse that can serve as a metadiscourse to critique the primary discourse or other secondary discourses" (Gee: 8). Gee sees powerful literacy primarily in terms of the possibilities presented by its metaknowledge for critique of other discourses. That is, he emphasizes the political significance of powerful literacy within a praxis of "seriously criticizing and thus changing a discourse" which presupposes metalevel knowledge in both discourses.

Besides this political-critical dimension, however, we recognise as well the significance of metalevel knowledge for analysis. The 'empowerment' potential of meta knowledge and powerful literacy is not simply a function of critique, but also of possibilities for analysis, and applications of analysis. Being able to analyse a discourse enables people to see how skills and knowledges can be used to advantage in new ways and new directions within an existing discursive field.

In this way Gee's classification can be thought about vertically, in terms of levels. McCormack's classification of literacy 'regions', by contrast, can be approached horizontally.

McCormack's regions of literacy

McCormack begins from an axiom we endorse. Adults with literacy problems "do not need something called literacy. They need an education" (McCormack 1991: 6). It is an education equal to the demands of contemporary life that is denied by literacy problems. Literacy, then, must be conceptualised in terms of adults' educational needs. To this end McCormack analyses the place of literacy within adult lives and life needs. He identifies four 'regions' of literacy, or sites of meaning-making employing texts. These he calls epistemic, technical, humanist and public literacy. Each region is established and maintained as a specific site of meaning-making via its distinctive 'family' of theories, practices, aporias, pedagogies, institutional locations, values, assumptions, etc. Within these discursive borders meanings are made in ways that continually censor other forms of meaning making. Adults must, however, be able to mobilise all four forms of meaning on any given social site. An education adequate for new times consequently calls for developing competence in all four regions.

Epistemic literacy refers to understanding categories of knowledge.

We draw on categories of knowledge when, for example, explaining what is wrong with a machine or a process, or knowing which section of a welfare agency, income maintenance or custody, to go to for a given need. Epistemic literacy involves reading and writing in order to understand the categories we need for operating in daily life. As we will show later in relation to work and citizenship, the daily demands on adults at large call for increasing command over categories of knowledge. Abstract knowledge is no longer the preserve of elites but impinges increasingly on the everyday lives of all adults.

Technical literacy is involved with understanding what is to be done and why in areas of practical action.

For example, we draw on technical literacy when we use written and electronic texts in following instructions and requirements in work tasks or in learning how to operate a video recorder at home. The nature of 'procedural knowledge' has changed. In new times tacit knowledge, "habitual routines of 'know how' ", are giving way increasingly to forms of procedural knowledge and competence dependent on "explicit instructional and expository material" (ibid: 16). Mastering work processes is much less a matter of being shown what to do and thereafter repeating the same processes than previously. It involves much more the process of understanding and applying written text, diagrams, visuals, graphs, numbers, etc.

Humanist literacy refers to constructing our selves, our identities.

It employs forms of reading and writing (and other media) within subject areas such as literature, history, biography, the arts and the social studies, to enable individuals to develop a viable sense and a fuller understanding of themselves. It is not surprising that humanist literacy assumes a high profile in times when many 'traditional' bases for identity and a sense of selfhood, such as a lifelong career, a permanent relationship, longterm fixed abodes have been seriously eroded. Social participation requires adults taking responsibility for their lives, and this presupposes a sense of who one is.

Public literacy is related to processes of democratic participation.

It involves forms of reading and writing used to debate and negotiate social

and political differences through recognised forms of interchange, proposal, justification, accusation, and defence within a polity. To press one's claims or those of one's group or constituency, it is necessary to access and use texts to understand and participate in the various forms of political process. This is a more active notion than McCormack actually advances by reference to Parekh's list of knowledges necessary for rejuvenating public discourse (McCormack 1991: 32). It is, however, what is required for the practice of citizenship in new times, where individuals and groups often must not only know how a polity works but also how to mobilise and act within the system in pursuit of their interests.

Levels by Regions: an analytical matrix

We find it fruitful to put the notion of levels derived from Gee together with that of regions taken from McCormack as follows.

Regions	Epistemic	Technical	Humanist	Public
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Levels				
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Meta (Tertiary)				
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Secondary				
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Primary				
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This matrix allows us to identify literacy requirements and plot strategies for addressing them that are not possible if the dimensions are taken separately. We will explore possibilities of this approach after outlining some key features of 'new times'. To complete the outline of our theoretical framework let us briefly sketch a view of self and identity that resonates with the character of new times.

A view of self and identity

So far as self and identity are concerned, we recognise that 'peopleselves' (whether individuals or groups) inhabit multiple and shifting discourses and must not, therefore, be construed as unitary, monolithic or permanent 'wholes'.

Later we will identify particular groups such as the unemployed, female victims of violence and new migrants, in relation to their literacy needs, but

always with the understanding that these comprise quite different individuals with a multiplicity of selves. The "unemployed", for example, comprises old and young, with diverse interests and cultural capitals. Some stagnate during unemployment which, for some is long term and for others temporary, while others grow. Some long term unemployed are 'there' by choice, while others are bitterly resentful. Among the short term unemployed some slip in and out purposefully, others for want of requisite skills.

All this has consequences for literacy work. Literacy education needs will be diverse. We cannot assume uniformity of provision. Some will need skills or techniques first, others will need metaknowledges. Some needs will call for contexts of acquisition, others for learning.

THE NEW TIMES

Many names are used to define the current era: post-industrial society, the information society, post-Fordism, the post-modern condition. The implication clearly is that we have moved on from the industrial or modern era to some new period, perhaps a period of transition. We will call it simply 'new times'.

New times are characterised by a number of trends within developed societies. We are interested in two particular trends.

First, major economic changes affecting the nature of work and the ways people participate in the economy. These will provide one focus of what follows. Our second focus are those social changes that affect the nature and number of people requiring literacy or adult basic education.

There are other important changes more obviously social in character, such as the changing role of women, new social movements, changes in the family and in communities, the reorganization of welfare states and other institutions including political structures and processes. These changes have particular consequences for the practice of citizenship in post-industrial societies, the way people participate in the polity. They are important with major implications for literacy education, and they merit close consideration, but we cannot deal with citizenship aspects here.

Participating in the Economy

It is almost a truism to observe that the 'new times' have 'upped the ante' for literacy, and indeed for all education, particularly in Australasia, largely because our economies are being forced to change more than those of most developed countries. If it is a truism it is one of profound importance.

Here we will first consider international trade and its effects on our economies generally, and the nature of work more specifically, to suggest the particular 'ante' that is being 'upped'. Then we will trace the changing social conditions of the 'new times' to show that modern society is continuously throwing up new kinds of people from those who have traditionally experienced literacy problems as adults.

International Trade

In the global economy, trade in primary products has become relatively less important within world trade. This is because food and most raw materials are now in adequate, if not over supply throughout the world. Prices are both comparatively low and liable to vary more than hitherto. The collapse of the Soviet bloc and the return of capitalism in Eastern Europe will allow those countries to produce food for export as they had done for centuries, and add to the glut of food worldwide. This will further disadvantage the distant food producers in Australia and New Zealand. Sustainable comparative advantage no longer depends on the natural resources endowment upon which we have relied for over 100 years. We are now forced to base our economies on higher value added production which requires more manufacturing and marketing skills, more financial and other services, all of which will mean more uses of high technology and more abstract thinking, and thus increased levels of education throughout the workforce.

Another feature of the modern world economy is the dominance of three main trading blocks: the European Economic Community led by Germany, East Asia dominated by Japan, and North America led by the United States. The first two employ new ways of playing and succeeding in the economic game, ways that will be required of all who wish to keep up. It has been called a communitarian form of capitalism, challenging the individualistic capitalism of the AngloAmerican countries, including Australasia, which

was formerly dominant. Communitarian capitalism favours business groups over brilliant entrepreneurs, and producer economics over consumer economics; prefers increased market share more than short term profit maximization; stresses social responsibility for skills, teamwork and loyalty to the firm (labour force turnover is seen as counterproductive), rather than individual responsibility for skills, large wage differentials and easy hiring and firing; and employs industrial strategies, active industrial and commercial policies that promote growth. (Thurow 1992: Ch 2)

Furthermore, in Japan and Germany the educational level of the workforce is considered to be higher than among their competitors. In Japan the entire bottom 50% is higher than anywhere else, while Germany is regarded as being the best educated across a broad range of midlevel, noncollege skills. (compare *ibid*: 52).

We are affected by these developments whether we like it or not. The impact of Japan on Australasia is already significant in business organization, finance, tourism and most areas of work. But we will not be able to deal with Japan effectively or understand the nature of the impact without substantial Japanese skills, language and cultural awareness, in our populations. At the same time, for us the global economy is more than the three dominant trading blocks alone. Modern telecommunications and transportation allow global sourcing of products and the development of a world capital market in which we can trade anywhere. We can develop international niche markets in either of both, or two, ways. We can find the markets and then acquire appropriate language and cultural skills to service them; and/or we can make use of the language and cultural skills we already have in our populations to locate and develop markets. Thus there is an economic place as well as an ethical rationale for the community languages of our migrants.

Work

Work in all offices, factories, retail shops and repair operations increasingly will require the ability to handle high technology processes involving microelectronics, using computers, monitoring processes, interpreting symbols and the like, in addition to simply reading instructions.

Modern market demands call no longer for standardized mass production, but for variety, consistent high quality and continuous innovation (Best

1990, Thurow 1992). It is no longer efficient to have workers just do as they are told. They need to take active part in the production process. They need to identify errors, make corrections themselves or seek help and explain the problem; to understand the reasons for quality and consistency; and to monitor the operations and products and suggest modifications. They will take part in, and contribute to, discussions about new products, improvements to processes, and marketing (compare Wiggernhorn 1990).

The old approach to newcomers in most workplaces had been to ask them to learn by watching others. Even when technology changed every five years such on-the-job training made sense, but people cannot handle constant innovation by watching one another.

Nowadays work requires basic and continuous upskilling; not only to relatively high levels of reading, writing and comprehension but also to the point of understanding mathematical and other abstract processes and the technology they are using. This description is of course reminiscent of the position adopted by John Mathews in Tools of Change (1989), a position that was subsequently severely criticised by such writers as Gahan (1991) as not prevalent in mainstream Australasian workplaces including those using high technology. This may be still true empirically. We can say however that we have described leading edge workplaces here and throughout the world (Best 1990), occurring in numerous regions in many countries (see e.g. Sabel 1982, 1989), but widespread in Japan (Friedman 1988) Sweden and Germany (Sharp 1986). In New Zealand it has been described for industries as diverse as meat-processing (The NZ Meat Producer 1992), automobile assembly (Callister 1990), and the manufacture of window stays (Gilbertson and Knight 1992).

The move to high technology workplaces is driven by the desire to achieve comparative advantage in a competitive world economy. Moreover the examples of Japan and Sweden suggest that having a highly educated workforce is a way to have a high wage and low unemployment economy. These two countries, and others with a Germanic education system that produces high levels of knowledge and skills across a broad spectrum of their workforces, have been the first to take greatest advantage of new technologies because of the availability of suitably educated workers. These

examples and a careful study of new industry in Europe have led Sharp (1986), and others to assert that "the mix of available skills shapes the evolution of the technology. If we want the technologies that support a high wage, high value added economy we have to ensure the education and skills to make that possible." (Cohen and Zysman, 1987: 7.) This line of thinking suggests that in Australasia the diffusion of high technology workplaces will be affected by the availability of sufficiently educated workers. At present we do not have enough of them.

Nevertheless, these leading-edge workplaces set the standard. By requiring so much more than traditional workplaces they make for bigger gaps between their workers on the one hand, and on the other the unskilled, the undereducated, and those with literacy problems. It is a bigger knowledge gap and a bigger wages gap.

They have raised the average level of knowledge and skills for all adult basic education. More than that they have called for a particular mathematical and technological knowledge, and for abstraction skills, where literacy in the dominant language, English in our case, is an essential prerequisite.

If, as Kalantzis says: "The aim of literacy has to be access to economic wealth, political power and symbolic representation" and "Literacy is a critical aspect of negotiating this" (Kalantzis 1991: 19) it can be seen that the gateway is now much higher and more difficult to reach.

In fact the situation is more complex. Those who lack the metalevel competencies necessary for taking full part in an economy where work requires continuous innovation, face limited opportunities for rewarding employment and life chances. For those without literacy the situation is grim and the penalties are severe: wages are lower, work options are fewer, unemployment is more likely to occur and to last, and catching up to the new standard is more daunting. That goal is further away.

Social Conditions

We are interested in those social conditions that affect the nature and number of people requiring literacy. Two main forms can be discerned. First some people simply fail to acquire literacy in school. In other cases, literacies atrophy where they are not practised.

1. Social conditions that impede the acquisition of basic literacy within the school system include among others:

- The social consequences of physical impairment and disability, especially deafness * Ill health, accidents and drug dependency affecting the individual child or its immediate family
- Family instability the breakup and reconstitution of families with intervening periods of sole parenthood and inadequate parents (Max 1991). The children of teenage mothers without fathers are empirically the most vulnerable
- Being the victim of systematic and sustained physical and sexual violence to mainly women and children
- The lack of cultural resources in the home and family, especially the lack of printed material, the use of languages and cultural forms other than English. This is often also associated with poverty.

2. Social conditions that can lead to an atrophy of literacy skills, include:

- Recent economic trends, especially associated with changes in the economy and in workplaces referred to above, have led to increased income inequality and unemployment.

(a) Income inequality has increased by the growth of highly skilled jobs that are well rewarded, and the concurrent reduction in remuneration for unskilled jobs. These now compete with unskilled jobs in Third World countries (Thurow 1992: 52). We have long had unskilled or deskilled work where atrophy of literacy skills occurred, and these continue to exist, for example in oldstyle assembly or disassembly lines such as meat-processing. As this work is restructured and upskilled, which has the effect of reducing inequality, illiteracy can be revealed.

The arrival of new technology in many work places calls for upskilling, some of which may require basic literacy work as a prerequisite. In the timber industry for example, long noted for high accident rates, there is evidence that "a large number of timber workers have inadequate basic skills" to meet changes in machinery and ways of working. (O'Connor, 1992: 2).

Overall however, there is not only less unskilled work, but less manual work, the kind of jobs from which strong unions had emerged in the past. Now unions are weakening and thus there is less protection for workers in many industries especially affecting part-time and unskilled work. Employment has become more volatile: part-time work, job changing and jobsharing have all increased, especially in the service industries. Though all part-time and unskilled work is not associated with the lack of literacy it is one of the sites where insufficient literacy will be found, and where literacy can atrophy.

(b) Unemployment has arisen largely from restructuring and economic downturn, but in addition, there are a variety of noneconomic conditions that cause people to drop out of the paid workforce, including, for example, those listed in (a) above such as mental and physical illness, alcoholism and drug addiction, and so on. In addition there are groups for whom unemployment is a chance to take time out, and there are those who simply prefer a freer lifestyle. In the past at least, our easygoing welfare states have provided for them. By no means are all of these situations associated with the atrophy of literacy skills, but they too are sites where it is more likely to occur.

In our societies recent unemployment most affects the young, females and the least skilled for the modern economy, but it has nevertheless impacted on a wide range of people and occupational types, many of whom may develop new skills while unemployed. Many government programmes for the unemployed are designed to promote this kind of activity, but so far they do not reach far enough into the affected population.

Unemployment for most is a transient phase. It is most likely to be debilitating and lead to literacy atrophy when it is associated with other conditions, among them those listed in (a) above. Getting back into the workforce for these people can mean developing awareness of the other conditions as well as that of unemployment; for example the victims, and indeed the perpetrators, of persistent violence often need new understanding of ways of managing their personal relationships, skills for relating effectively to social agencies, techniques for seeking work, in addition to the new work skills not required at the time of dropping out.

The conception we have is of people moving in and out of the need for literacy assistance, constant flux, but a new source of steady demand. Furthermore the people affected in these ways, especially the unemployed, are seldom gathered together in one place, and seldom have a shared recognition of their situation.

In providing a safety net the welfare state acts to lessen or mitigate their impoverishment in various ways. It also has the effect of weakening awareness of their situation and gives them the common role only of beneficiary. The modern or postmodern condition is not one of large numbers of people aware of similar deprivation who might mobilize and create political demand for appropriate education, as occurred in the 19th century and during the depression of the 1930s. Rather it is one of fragmentation and separatedness among people without adequate literacy, but nevertheless participating in a range of often satisfying discourses. The stigma of illiteracy may add a personal unwillingness to publicly mobilize on that issue.

3. Migration is another feature of modern societies that creates demand for basic adult education. There is deliberate immigration as a consequence of government policies, immigration from nearby semi-dependent countries and the acceptance of refugees.

The very act of emigration from non-English speaking societies to Australasia has led to the regular provision of educational facilities and to well established pedagogical techniques. Certain groups within the migrant community seem to be able quickly to acquire the necessary levels of English and wider proficiencies, not only to enter the workforce but to secure quality employment. Furthermore in many cases their community languages and home country contacts are proving valuable to Australasia's international trade and diplomacy as well as enriching cultural life. The language policies of both countries now provide for the active retention of community languages, though some commentators have expressed reservations over whether they go far enough. (Department of Employment, Education and Training 1991; Waite 1992. For a comment see also Clyne 1991) Within 'new times' multilingual and multicultural diversity are among those diversities that are now celebrated.

However, there are groups of migrants who remain at risk. As stated in Australia's Language, approximately 360,000 adult immigrants have little, if any, English. Two-thirds of these are not in the labour force and the rest are mainly in lowskilled and poorly paid jobs, and are heavily at risk in the industry restructuring process. (p.2.) New Zealand has a similar story to tell where the migrants at risk in this way are predominantly Polynesian.

Not all populations similarly affected are migrants, however, but include also the indigenous peoples of both countries. (For New Zealand see E Tipu, E Rea 1991: ch. 6.)

Among the migrants and indigenous peoples some have been disproportionately successful in quickly acquiring English language skills and making their way in the society; and others have been disproportionately unsuccessful in acquiring and using the written texts that allow access to advantage.

The observation calls for more research into the patterns and the causes of success and failure, and also into ways of addressing under-achievement. One commonly observed pattern is that the successful groups are highly represented by people from lettered cultures (i.e., cultures with writing and established literatures), while the unsuccessful groups contain many from cultures without a written literature.

In other words the successful are those who have a tradition and the direct experience of language learning using explicit grammars and rules of syntax. In Gee's terms they have employed both learning and acquisition with their own language, and so when they come to the second language they have metalevel awareness. On this point Gee notes,

We should realize that teaching and learning are connected with the development of metalevel cognition and linguistic skills. They will work better if we explicitly realize this and build the realization into our curricula. (Gee 1991: 9,10)

We will return to this point below.

From the other side, for the unsuccessful there is a strong move among community leaders and educationists to promote the teaching and use of the community languages within formal education settings. This may provide a

way of addressing the metalevel issue among peoples from cultures lacking a lettered tradition. The students may take up the new language more efficiently if they have a secure mastery of their own language. It is not merely within written cultures that metalevel processes are available. Here as well there is ample scope and need for projects of research and development.

APPLICATIONS AND CONCLUSIONS

Applications

We hope our theoretical framework and overview of new times has potential for fruitful applications within adult literacy specifically and education more generally. We have space here only to hint at how it might be applied to the situation of migrants and indigenous peoples attaining literacy in English.

We have noted that penalties for failing to attain adequate English language literacy are severe and that migrant and indigenous groups are disproportionately at risk. Our analysis, especially the analytic matrix of regions and levels of literacy, suggests that breaking the cycle of literacy problems among these groups should be pursued on several fronts and across generations. This in turn has implications for policy, strategies, and situated practices.

To begin, let us think of the schools where children fail to acquire adequate English in part because their homes i.e. their parents lack sufficient cultural resources pertaining to English literacy. The parents, in fact, in many cases themselves require adult basic education. Up to now we have not attended sufficiently to this aspect and the children have continued to underachieve. Our analysis provides some direction here.

1. If we put insights from the meta level of language and literacy together with elements from McCormack's region of epistemic literacy we arrive at theory grounded justifications for strategies linking community languages to the teaching of English and critical capacities (powerful literacy) to children whose community language is the oral language of the home.

Making use of community languages, whose promotion is now part of government policy, can enhance ESL students' meta level understanding of

English. Hence it can assist them to understand and work with epistemological categories in English.

There are degrees of 'cross referencing'. Fully bilingual learning marks one pole. We are told that in New Zealand, via Kohanga Reo for preschoolers, and Kura Kaupapa Maori so far for primary school ages, bilingual learning is being introduced with pleasing results. This is an important area for research. At the other end, the cross referencing may be limited to linking grammatical structures and parts of speech in English to their equivalents in the community language.

So far as policy and strategy are concerned, this classroom application of our theory/matrix requires teachers of English who command at least basic linguistic structures and vocabulary in the relevant community language(s).

Gee identifies more closely some implications for powerful literacy, drawing on the important distinction between acquisition and learning. He notes how mainstream middle class children often appear to be learning literacies in school, whereas they are in fact acquiring them at home and getting additional practice at school. Where teaching (i.e., activity aimed at learning) is good within the classroom, what mainstream children learn but what is denied to children from non-mainstream groups by their lack of access to acquisition in the home are metalevel cognitive and linguistic skills that they can use to critique [and, we would add, to employ more consciously in their interests as appropriate] various discourses throughout their lives (Gee 1991: 9).

By contrast, children from non-mainstream homes (including subordinate class as well as migrant and indigenous groups) often lack opportunities to acquire those secondary discourses of school and other institutional settings that provide access to money, power and status ('dominant discourses') since their parents lack access to them. To the extent that classroom teaching stresses learning over acquisition these children are doubly disadvantaged. They can't practise what they haven't acquired; and they can't acquire efficiently via learning. "They often cannot use this learning-teaching to develop metalevel skills, which require some control of secondary discourses to use in the critical process" (ibid). Relevant theoretical work in

this area is already evident in Australia (see, for example, Baker and Luke 1991; Freebody, Luke and Gilbert 1991, Luke 1993).

Our analytical matrix suggests, then, the possibility of fruitful searches for strategies involving use of community languages and pedagogical innovation to address such impediments to literacy take-up in school.

2. Additional support for developing English language literacy by reference to the child's community language can be provided within McCormack's region of humanistic literacy. Here, for example, the Literature teacher encourages the child's development of cultural identity by assigning projects that require using English to speak and write narratives, and to elaborate values, beliefs and desires, focused around her community of origin.

3. The matrix also suggests adult literacy and citizenship applications. One important dimension of citizenship involves making optimal use of public services, such as schools. As Concha Delgado Gaitan (1990) shows with reference to a Hispanic migrant community in California, migrant parents are often unable to assist with their children's school learning because they do not understand the nature and purpose of specific educational activities and the school's dominant discourses.

In Delgado Gaitan's study most parents "shared a feeling of confusion as a result of unclear school expectations and vagueness about the meaning of the homework ... Decontextualized exercises and practice tasks made parental assistance difficult" (ibid: 115). The worlds of school and migrant home do not come sufficiently together.

Migrant and other non-mainstream parents need a kind of meta knowledge about school as well as something akin to McCormack's technical literacy with regard to school. They need to be able to 'read' and 'follow' the 'instructions' of school.

Our 'theory' suggests two strategies.

(i) Include school related knowledge as an important component of adult literacy programmes and basic education. In this way English language literacy can be acquired by ESL learners in accordance with Gee's principle that learning to read and write is always some aspect of some discourse. It makes powerful sense to promote literacy acquisition among ESL students

1.3

in the context of school discourse, particularly in conjunction with trying to promote meta-understanding of the dominant discourses of school.

(ii) Schools in districts with high concentrations of working class, indigenous people, or migrant families should become sites of adult literacy work through school-based adult basic education. This means adding trained ABE teachers to school staff and integrating ABE teacher training within mainstream teacher education. In this way the school effectively becomes a vehicle for bringing into ABE adult groups that other structures have less or little hope of attracting. There is need for research and a search for exemplars here, since implementing these strategies is not straight forward. Delgado Gaitan documents efforts by the school she studied to promote educationally effective school family contact. These largely failed, contributing to parental frustration. In the end the parents themselves assumed a leadership role in trying to learn more about the school and how to work effectively with their children (an exercise in active citizenship and mobilisation). Such chronicles have much to contribute to research, theory and practice focused on the links between adult literacy, the practice of citizenship, and addressing educational disadvantage in pursuit of greater equality via knowledge.

Conclusions

1. In new times social conditions, including patterned school failure, experiences tending to atrophy literacy, emigration, and the ever escalating literacy requirements for work and citizenship, ensure a continuing and pressing demand for adult literacy and basic education work. The weight imposed by this demand on adult education, in terms of the amount and sophistication of provision and attendant needs for programme development, call for incorporating adult literacy/ABE fully into the mainstream of post-compulsory education and training.

2. The very conditions we have identified in a preliminary way as creating this demand need themselves to be better quantified and understood. This suggests a major focus for adult literacy related research and development.

Theory of the kind advanced by Gee and McCormack also presents an important focus for ongoing research. How, for example, can Gee's theory and its implications be more effectively operationalised? Do his distinctions

and categories stand up under closer scrutiny than provided here? How useful, in the end, is his conceptual map for practical purposes?

McCormack's claim that his regions are not intended to be absolute notwithstanding, how adequate and exhaustive are they? What further regions might usefully be identified? In our discussion we drew attention, for example, to the importance of 'Japanese skills and knowledges': language and cultural sensitivity. Does the purpose and focus of such learning, mediated as it is by text, comprise a key region of literacy in new times?

3. Our analysis here is early and still tentative. This noted, however, we would argue that it cautions against mechanistic levels for measuring literacy and wider learning competency. We believe that the recently developed *Adult Literacy and Numeracy Competency Scales* do not take sufficient account of insights into metalevel understandings and, specifically, the nature and importance of powerful literacy. Neither do they reflect adequate awareness of the conditions and situations of those who move in and out of literacy needs, and the wider social and economic conditions related to these movements.

4. Finally, we think it accurate to claim that in new times pursuing social justice begins with ensuring effective literacy. Economic and political power will be contested by bringing knowledge to bear on conditions perceived as affecting the interests of specific and often highly localised groups. As McCormack observes, "Bacon's maxim: 'Knowledge is power' is becoming increasingly pertinent" (McCormack 1991: 9). Adult literacy work is to the forefront here. In new times it assumes unprecedented urgency.

REFERENCES

- Baker, C. and Luke, A. eds. (1991) Towards a Critical Sociology of Reading Pedagogy. Amsterdam: John Benjamins
- Best, M. (1990) The New Competition: Institutions of Industrial Restructuring. Cambridge, MA: Harvard University Press.
- Callister, P. (1990) Tomorrow's Skills. Wellington: New Zealand Planning Council.

Cohen, S. and Zysman, J. (1987) Manufacturing Matters: The Myth of the PostIndustrial Economy, New York: Basic Books.

Clyne, M. (1991) 'Australia's Language Policies: Are We Going Backwards?', Australian Review of Applied Linguistics, Series S No. 8, pp. 322.

Delgado Gaitan, C. (1990) Literacy for Empowerment: The Role of Parents in Children's Education, London: Falmer Press.

Department of Employment, Education and Training (1991) Australia's Language: The Australian Language and Literacy Policy, Canberra: Australian Government Publishing Service.

Freebody, P. Luke, A. and Gilbert P. (1991) 'Reading positions and practices in the classroom', Curriculum Inquiry 21, 435-458.

Friedman, D. (1988) The Misunderstood Miracle: Politics and Economic Decentralization in Japan, Ithaca, NY: Cornell University Press.

Gahan, P. (1991) 'Forward to the Past?: The Case of "New Production Concepts"', Journal of Industrial Relations, vol. 33, no. 2, pp. 155-77.

Gee, J. P. (1991) 'What is Literacy?' in Mitchell, C. and (eds), Rewriting Literacy, South Hadley, Mass: Bergin and Garvey, pp. 311.

Gilbertson, D. and Knight, R.M. (1992) Innovation and Management in New Zealand: a Casebook, Palmerston North: Dunmore Press, pp. 140-150 ('Interlock Industries').

Griffin, P. and Forwood, A. (1991) Adult Literacy and Numeracy Competency Scales, Coburg, Victoria: Assessment research Centre, Philip Institute of Technology.

Kalantzis, M. (1991) 'Just How Clever?: Restructuring, Literacy and Multiculturalism', ACAL Conference Proceedings, Melbourne: ACAL, pp. 1225.

Luke, A. (1993) The Social Construction of Literacy in the Primary School, Melbourne: MacMillan.

Mathews, J. (1989) Tools of Change: New Technology and the Democratisation of Work, Sydney: Pluto Press.

- Max, L. (1990) Children: Endangered Species?, Auckland: Penguin Books.
- McCormack, R. (1991) 'Framing the Field: Adult Literacies and the Future', in Teaching Critical social Literacy: A Project of National Significance on the Preservice Preparation of Teachers for teaching Literacy, Vol. 2: Papers: August 1991.
- Nga Kairangahau Manatu Maori (1991) E Tipu, E Rea: Maori Education Current Status, Wellington: Ministry of Maori Affairs.
- New Zealand Meat Producers Board (1992) New Zealand Meat Producer, Wellington: Vol 20, no. 4.
- O'Connor, P. (1990) Skills at Work, Sydney: NSW Adult Literacy Council.
- 'The Timber Industry BEST Project', (1992) Sydney: CFMEU.
- Sabel, C. (1989) 'Flexible Specialization and the Reemergence of Regional Economies', in Hirst, P. and Zeitlin, J. (eds.) Reversing Industrial Decline: Industrial Structure and Policy in Britain and America, New York: St Martin's Books.
- Sharp, M. ed. (1986) Europe and the New Technologies, Ithaca, NY: Cornell University Press.
- Thurow, L. (1992) Head to Head: The Coming Economic Battle among Japan, Europe and America, New York: William Morrow and Company.
- Waite, J. (1992) Aotearoa: Speaking for Ourselves, Wellington: Ministry of Education Learning Media.
- Wiggenhorn, W. (1990) 'Motorola U: When Training Becomes an Education', Harvard Business Review, Vol. 90, No. 4, July/August, pp. 7183.

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Removing cultural barriers to numeracy

Alan J. Bishop

I come to this conference as someone who has worked in the field of mathematics education for many years, both as a teacher at several different levels, and as a researcher. My teaching and my research interests are closely related. I have taught physically handicapped children and adults, young people from ethnic minority groups in UK, extracurricular mathematics classes with gifted, black youngsters in USA, teachers and young people in Uganda, Iran and Papua New Guinea. I have been curious about how to make mathematical ideas accessible to all learners and that has taken me into some intriguing areas of research and into some very challenging teaching situations.

I am particularly interested in numeracy teaching because in my experience:

- (a) it often involves adult learners, and there is not much research on adults learning mathematics
- (b) those learners have frequently experienced failure and/or fear in earlier learning experiences in mathematics, and this presents interesting challenges for us
- (c) it usually takes place in the context of non-formal education, which is a context that allows for more experimentation than the formal educational situation
- (d) the learners often have some specific goals which they want to achieve, and which can therefore be a positive resource.

As a result of my experiences and in relation to those points, I firmly believe that

- (a) all adult learners can get access to mathematical ideas, because they do mathematical activities all the time
- (b) one can remove fear and failure in becoming numerate by emphasising strengths and existing competencies, rather than weaknesses and disabilities
- (c) achieving success as a non-formal numeracy teacher is largely a matter of removing curricular and pedagogical barriers to learning
- (d) progress is best made by building on the goal setting which the learners have already done, and the self-assessment which they inevitably do.

In this talk, I first of all want to address these points in the context of considering mathematics, and therefore numeracy, as part of cultural knowledge. Over the last decade we have seen a growing awareness of the cultural basis of mathematical knowledge, and it is clear that teachers can no longer casually assume that mathematics is culture-free and therefore value-free. The mathematics which we teach values universal applicability as one of its qualities, that is, the mathematical principles and concepts can be applied everywhere. Angles in a triangle add up to 180° everywhere; $15 \times 7 = 105$ everywhere. However the paradox which we must confront is that this idea of universal applicability does not mean that this mathematics is value-free. Its very applicability is one of its values. The mathematics which is the foundation of our numeracy, derives from a certain cultural history and a large part of my recent research effort has been devoted to trying to clarify just what the implications are for teaching or assuming that mathematics is culturally based knowledge.

However, it is not just enough to consider culture, particularly because numeracy and mathematics are not the same thing. We also need to recognise that numeracy sits within a certain societal context, and has been established through certain social situations. There is therefore a certain particularity about numeracy, and my definition of numeracy is *the mathematical knowledge needed by every citizen to empower them for life in that society*. Different societies will, and do, as we can see, demand different numeracies. What is important knowledge in one societal situation will not necessarily be important in another society.

So therefore, today I shall be looking at numeracy as culturally based and socially situated knowledge, to see what this perspective offers us for improving the quality of numeracy teaching. To make a start on this, I want first of all to focus on those students who experience alienation from, and conflict with, mathematics as it is commonly taught. Already there is a lot of research which we can build on: for example, particular groups for whom conflict with, and alienation from, school mathematics have been documented.

Ethnic minority children in Westernised societies

Many of our text materials contain problem situations which assume knowledge of life in the dominant society. I recall teaching a young girl from Bangladesh who had just arrived in England and who was faced with some mathematics problems involving reading a map of Salisbury and terms like 'ring road'. The text and the context were both totally incomprehensible to her, and thus whatever mathematical ideas she was supposed to gain from this experience were completely denied her.

Second language students

I asked a group of adults to 'imagine' some numbers when I called them out, and we discussed what images they conjured up. After considerable animated discussion one woman said all she 'saw' were the words, but "I've only just learnt English and I'm sure if you were to say the numbers in Polish I'd see them differently". I don't know Polish but I did say some numbers in French, and suddenly we all 'saw' the words! Is it always like that for second language students?

Indigenous 'minorities' in Westernised societies

There is much documentation of the conflicts experienced by Aboriginal students, by native American students, by Maori students and by black African students in South Africa.

Girls in many societies

Interestingly, and despite widespread acknowledgement of the alienation felt by girls, not all girls in all situations feel under conflict, and it is therefore instructive to reflect on why that should be so.

Western 'colonial' students

Models of mathematics education have been transported wholesale to former colonies, and in all cases have been found to be inappropriate and alienating.

Fundamental religious groups

School mathematics still tends to be presented as if it is value-free, but, in Moslem societies and within certain fundamental Christian communities, there is felt to be much conflict with their religious beliefs.

Children from lowerclass and lowercaste families

John Ogbu (1978), an anthropological researcher in America, believes that 'caste' is a more appropriate term for some underachieving social groups than 'class', on the basis that one's class is escapable whereas one's caste is not. He explains the school failure of many blacks, native Americans, and certain immigrant groups in terms of their belonging to an undercaste in American society.

Physically disadvantaged students

To be blind, or deaf, for example, causes learners to be disadvantaged by many of our mathematical curricular and pedagogical approaches. Imagine how you might teach a deaf student the meaning of 'if' or 'because' or 'nevertheless'.

Rural students

In many societies the mathematics curriculum and teaching context is based on the dominant values and cultural norms usually associated with an urban and a middle or upper class, or caste, group. The alienation can be felt very strongly in many Thirdworld countries, but exists to some extent in all countries. The documented conflicts and barriers vary, but concern some or all of the following:

- language
- geometrical concepts
- calculation procedures
- symbolic representations
- logical reasoning
- attitudes, goals, and cognitive preferences
- values and beliefs

How then can we approach numeracy as a culturally based and socially situated form of knowledge, with a view to removing these barriers? The key is firstly, to recognise the existence, and legitimacy, of different mathematical practices. And secondly, to search for similarities between those different mathematical practices.

Different mathematical practices are being revealed by research, which comes under the general heading of 'ethnomathematics', and this research has three different and distinct foci:

- (a) mathematical knowledge in traditional societies (Anthropology) e.g. Ascher (1991), Zaslavsky (1973), Lean (1986), Harris (1991)
- (b) mathematical developments in non-Western cultures (History) e.g. Ronan (1981), Joseph (1991), Gerdes (1992)
- (c) the mathematical knowledge of different groups in society (Social psychology) e.g. Lave et al (1984), Saxe (1990), de Abreu and Carraher (1988).

These research developments are showing us quite clearly the enormous range of mathematical knowledge and practices which exist in the world and which are usually ignored in educational contexts. (As an aside you might care to ask yourselves, does this mean that there is one mathematics appearing in different manifestations and symbolisations, or are there different mathematics being practised which have certain similarities?)

I will show you some examples of this range now, but I will do this by using the categories of similarity which I believe exist. It is these categories which I believe are the key to removing cultural barriers.

It appears from our research that all mathematical knowledge which has been documented in different societies is analysable into six main categories: counting, locating, measuring, designing, playing, explaining. All groups which have ever been studied and documented so far appear to do all of these activities, and together (I argue) these human activities create the knowledge we call mathematics.

Let me describe, and discuss them, in more detail now, and as I do so I would like you to be thinking of how you can develop teaching and learning activities around these categories and in particular how to do this with reference to your students' particular societal contexts.

Counting

This is to do with answering the question 'How many?', with inventing ways to describe numbers, recording them and calculating with them. Fingers, parts of the body, stones, sticks, and string are just some of the

objects which are used as 'counters'. The range is enormous, for example ,Lean (1986) , now at Deakin University, has documented more than 1500 counting systems in Melanesia, Micronesia and Polynesia. Joseph (1991) also indicates the range of calculation methods and algorithms used by different cultural groups.

Many interesting classroom activities can be generated by comparing counting and calculating procedures used by different learners.

Locating

This activity concerns finding one's way around, navigating, orienting yourself and describing where things are in relation to one another. Compass directions, stars, the sun, wind, maps, are used by people all over the world to find their way and position themselves. Many geometrical ideas come from this activity, and students who perhaps have difficulty with number activities can often feel more comfortable with spatial and geometric ones.

Measuring

'How much?' is a question asked and answered everywhere. Whether it is amounts of cloth, food, land or money which people value, measuring is a skill we all need to develop. Parts of the body, pots, baskets, string, beads, coins have all been used as well as writing and drawing amounts on paper or cloth.

An interesting class activity can be to discuss different ways of measuring. For example in a certain part of Papua New Guinea, the people compare their rectangular gardens' size by adding the length and the width, rather than by multiplying them. In north east Brazil the sugarcane farmers compare the sizes of their four-sided fields by averaging the lengths of opposite sides and multiplying the two answers together. Both methods appear to work satisfactorily in the local context.

Designing

Shapes are very important in all societies and these arise from designing objects to serve different purposes. The objects can be small and mundane, like a spoon, or large and symbolically important like a church.

Mathematically we are interested in the shapes and the designs which are

used, together with their different properties. For example, in Mozambique some of the house builders lay out the rectangular base for the house by using four equal lengths of rope all tied together at one end. How then do they make a rectangle?

Playing

Everyone plays and everyone takes playing seriously! Not all play is important from a mathematical viewpoint but puzzles, paradoxes, rules of games, strategies for winning, guessing, and gambling are all important in the development of mathematical thinking. For teaching also, don't forget the more aesthetic contributions which certain dances and music can make to mathematics education.

Explaining

Understanding why things happen the way they do is a universal human quest. In mathematics the interest is in why number patterns happen, why geometric shapes go together, why one result leads to another, why some of the natural world seems to follow mathematical laws, and in the process of trying to symbolise answers to these kinds of 'why' questions. A proof is one kind of symbolic answer, and there are many others, depending on what else is assumed to be true.

For example, Gay and Cole (1967) in their classic study of the Kpelle, report "a Kpelle college student accepted all the following statements: (1) the Bible is literally true, thus all living things were created in the six days described in Genesis; (2) the Bible is a book like other books, written by relatively primitive peoples over a long period of time, and contains contradiction and error; (3) all living things have gradually evolved over millions of years from primitive matter; (4) a 'spirit' tree in a nearby village had been cut down, and put itself back together, and had grown to full size again in one day. He had learned these statements from his fundamentalist pastor, his college Bible course, his college zoology course, and the still pervasive animist culture. He accepted all, because all were sanctioned by authorities to which he feels he must pay respect." (p 35)

Given then that these six activities are in some sense universal, how can we make use of them?

We can find obvious connections with standard school mathematics syllabuses but, more importantly, from the perspective of numeracy teaching, we can also find many connections with the world of the students we are teaching. Whether our students are homemakers coping with managing households, adults working in a variety of occupations, or unemployed or physically handicapped youngsters, you will find as a teacher that you can make contact with mathematical ideas in their world through these six categories. It goes without saying that this is also true for all adults who come from a non-Western cultural background or whose first language is not English. Some important implications come from this analysis.

(1) It shows how narrow some approaches to mathematics teaching can be and have been and also how limiting it will be to define numeracy too narrowly. I would personally wish to see numeracy teaching including all six activities rather than, for example, just 'counting', which was the case in one situation I visited. The six activities aren't necessarily all 'on the curriculum' but they do offer ways into mathematical ideas from the learner's own perspective. Thus it may not be required to teach 'playing', but 'playing' and games offer an important route into many mathematical ideas.

(2) No cultural groups develop all mathematical activities to the same degree so be aware of relative strengths, which can be built upon. For example, Western mathematical language is full of logical connectives. English and other IndoEuropean languages are so replete with logic words in general, that we almost seem to be obsessed with logic, argument, and rational argument. It needs, therefore, to be a priority in any numeracy and literacy course particularly for any NESB students.

(3) You may well find many differences in relation to these activities between the students in your classes. Don't be dismayed! The assumption of learner homogeneity is one of the most powerful barriers to individual learner progress. Learner heterogeneity should be an advantage and a benefit to any teacher, rather than a problem. The more alike the students are, the more the teacher herself has to bring in relevant counter examples,

contrasts, comparisons etc. Contrastive mathematical backgrounds among the students can be a powerful resource in classrooms.

(4) Societies differ in the extent to which they value these different activities. This point reinforces my earlier observations that numeracy is socially situated knowledge with its own particularities in any one society.

Some other general principles for numeracy teaching which can be deduced from this perspective are the following:

- Even if content is specified by a curriculum, the context for activities and tasks is open to choice by teacher and students. The teaching group is the actual joint creator of the knowledge environment within which the learning takes place, and that can be specifically negotiated by each particular teaching group.
- Try to localise the numeracy activities, by using relevant local numerical and geometric information, and by acquiring and using local 'realia'. I am using the idea of localising to emphasise familiarity and therefore meaningfulness. The abstract and generalised problems found in most mathematics textbooks make assumptions about students' general knowledge of the society represented by the books. Those assumptions are often unwarranted and constitute strong barriers to learning.
- Encourage more small group working to reduce the fear which many still have of mathematical activities. Mathematics is still for many adults a subject which they believe you have to do by yourself. This is clearly not the case, and pedagogical ideas which are used in language and literacy classes for example, are equally useful in numeracy classes, for all the same reasons.
- Encourage students to work mathematically in whatever language they wish to use. Recognise bilingualism to be of positive value rather than a problem. Groups can be discussing in a language with which the teacher need not necessarily be familiar. That doesn't seem to me to be a problem provided at some stage the students present their ideas and results to the teacher and the class in the accepted language.

An old adage says "you count, you swear, and you dream, in your first language". Whether that is true or not, the fact is that bilingual learners are usually much more aware of language aspects of numeracy and

mathematics than monolingual learners, because they have to be. Any problems bilingual learners have in classrooms are usually caused by the dominant monolingual speakers, either the teacher or the other students.

- Focus your attention, and the classes activities on students' strengths and preferences, rather than on deficiencies and weaknesses. This is clearly my message, which underlies all the previous points. The deficit model of teaching and learning numeracy has been found to be inadequate because of its tendency to see learners in an inadequate and therefore negative and inferior light. It also places them in a dependent mode, which is also unhealthy in both the short and the long term. Ultimately they will need to survive without the teacher and be an independent and contributing member of society. The way a teacher can help is by building on the students' strengths, not denying them, and by removing whatever cultural barriers seem to be in the way of the students using their strengths maximally.

BIBLIOGRAPHY

Abreu, G. de and Carraher, D (1988) The Mathematics of Brazilian Sugar Cane Farmers, In C. Keitel et al, (eds), Mathematics, Education and Society. Papers presented at ICME 6, Science and Technology Education Document Series No. 35. Paris, France: UNESCO.

Ascher, M (1991) Ethnomathematics: A Multicultural View of Mathematical Ideas. California, USA: Brooks/Cole Publishing Company

Berry, J. W. (1985) Learning Mathematics in a Second Language: some Crosscultural Issues. For the Learning of Mathematics. 5 (2), 18-23.

Bishop, A. J. (1990) Western Mathematics: the secret weapon of cultural imperialism. Race and Class, 32, 5165.

Bishop, A. J. (1991) Mathematical Enculturation: a Cultural Perspective on Mathematics Education. Dordrecht, Holland: Kluwer Publishing Company.

Carraher, D (1991) Mathematics Learned In and Out of School: A Selective Review of Studies from Brazil. In M. Harris, (ed), Schools, Mathematics and Work. London, UK: The Falmer Press.

Carraher, T. N. Carraher, D. W. and Schliemann, A. D. (1985) Mathematics in the Street and in Schools. British Journal of Developmental Psychology, 3, 2129.

Frankenstein, M. and Powell, A. B. (1988) Mathematics Education and Society: Empowering NonTraditional Students. In C. Keitel et al, (eds), Mathematics, Education and Society. Papers presented at ICME 6, Science and Technology Education Document Series No. 35. Paris, France: UNESCO.

Gay, J. and Cole, M. (1967) The New Mathematics and an Old Culture, New York, Holt, Rinehart & Winston.

Gerdes, P. (1985) Conditions and Strategies for Emancipatory Mathematics Education in Underdeveloped Countries. For the Learning of Mathematics, 5 (1), 15-34.

Gerdes, P. (1992) On the History of Mathematics in Africa south of the Sahara, AMUCHMA Newsletter 9 (African Mathematical Union Commission of the History of Mathematics in Africa) Higher Pedagogical Institute, Maputo, Mozambique.

Graham, B. (1988) Mathematical Education and Aboriginal Children. In A. J. Bishop, (ed), Mathematics Education and Culture. Dordrecht, Netherlands: Kluwer Academic Publishers.

Harris, M. (1987) An Example of Traditional Women's Work as a Mathematics Resource. For the Learning of Mathematics, 7 (3), 2628.

Harris, P. (1991) Mathematics in a Cultural Context: Aboriginal Perspectives on Space, Time and Money Australia: Deakin University.

Joseph, G. G. (1991) The Crest of the Peacock NonEuropean Roots of Mathematics. London, UK: I.B. Tauris and Co. Ltd.,

Keitel C., Damerow P., Bishop A. and Gerdes P. (1989) Mathematics, Education and Society: (Science and Technology Education Document Series No. 35) UNESCO, Paris.

Lave, J. Murtaugh, M and Rocha, O de la (1984) The Dialectic of Arithmetic in Grocery Shopping. In B. Rogoff and J.

Lave, (eds), Everyday Cognition: Its Development in Social Context, USA: Harvard University Press.

Lean, G.A. (1986) Counting Systems of Papua New Guinea, 3rd Edition, Dept. of Mathematics, Papua New Guinea University of Technology, Lae.

Merttens, R. and Vass, J (1990) Sharing Maths Cultures. Hampshire: The Falmer Press.

Nunes, T. (1992) Ethnomathematics and Everyday Cognition. In D. A. Grouws, (ed), Handbook of Research on Mathematics Teaching and Learning. New York: Macmillan Publishing Company.

Ogbu, J (1978) Minority Education and Caste: the American System in Cross-Cultural Perspective, New York: Academic Press.

Pinxten, R (1987) Navajo Indian Geometry. University of Gent, Belgium: Communications and Cognition.

Ronan, C. A. (1981) The Shorter Science and Civilisation in China. Vol. 2. Cambridge, University Press.

Saxe, G. B. (1988) Candy-Selling and Math Learning, Educational Researcher, 17 (6) 14 21.

Saxe, G.B. (1990) Culture and Cognitive Development: Studies in Mathematical Understanding, Hillsdale, NJ: Lawrence Erlbaum Associates.

Thompson, V. (1989) Family Math: Linking Home and Mathematics. In C. Keitel et al, (eds), Mathematics, Education, and Society. Paris: UNESCO.

Zaslavsky, C (1973) Africa Counts: Numbers and Patterns in African Culture. Boston, USA: Prindle, Weber and Schmidt.