Neil Hooley

Explorations of Educational Purpose 7

Narrative Life

Democratic Curriculum and Indigenous Learning

Springer

Narrative Life

EXPLORATIONS OF EDUCATIONAL PURPOSE

Volume 7

Series Scope

In today's dominant modes of pedagogy, questions about issues of race, class, gender, sexuality, colonialism, religion, and other social dynamics are rarely asked. Questions about the social spaces where pedagogy takes place - in schools, media, and corporate think tanks - are not raised. And they need to be.

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Narrative Life

Democratic Curriculum and Indigenous Learning

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Interest is obtained not by thinking about it and consciously aiming at it, but by considering and aiming at the conditions that lie back of it and compel it. If we can discover a child's urgent needs and powers and if we can supply an environment of materials, appliances and resources – physical, social and intellectual – to direct their adequate operation, we shall not have to think about interest. It will take care of itself. For mind will have met with what it needs in order to be mind. The problem of educators, teachers, parents, the state, is to provide the environment that induces educative or developing activities and where these are found, the one thing needed in education is secured.

John Dewey, 1975, pp. 95–96.

This book is dedicated to the life and memory of Professor Joe Kincheloe who died suddenly in December 2008. At the time of his death, Joe was Canada Research Chair in Critical Pedagogy in the Department of Integrated Studies in Education at McGill University. Joe wrote extensively across a number of education and research fields from a critical and democratic perspective and was a key figure in the development of critical pedagogy around the world. He made major contributions to Indigenous education, knowledge and research. With Shirley Steinberg, he established The Paulo and Nita Freire International Project for Critical Pedagogy (http://freire.mcgill.ca/), 'dedicated to building an international critical community which works to promote social justice in a variety of cultural contexts. We are committed to conducting and sharing critical research in social, political, and educational locations.' Joe was an incredibly principled and generous person who dedicated his life to working with friends, colleagues and communities for a more equitable world. He shall be greatly missed, but his commitment to the progressive cause strengthens those of similar mind who continue to walk together along a difficult road.

Preface

Indigenous education is one of the great challenges facing humanity in the historic quest for a democratic and peaceful future. The 370 million Indigenous peoples of the world demand that the racist and colonial wrongs of the past be rectified and that they stand as equals in confronting the social, political and cultural problems that surround us all. Education offers a way forward, whether concerned with the public good, schooling for all citizens including universal primary education and expanding secondary education, the education of women regardless of background, the inclusion of local cultures, literacy and numeracy for all as a democratic right and the provision of comprehensive education that enables both personal aspiration, cultural satisfaction and economic pathways.

What this means is that all children no matter where they live, no matter what their background or the colour of their skin should expect to have access to education of the highest quality. This does not impose a particular style of education for local communities but respects that educational directions must be decided independently by countries themselves. Within this general context, there is also something most profound about Indigenous knowing, of appreciating Indigenous perspectives and applying these across all knowledge, across all subjects of a curriculum. Rather than accepting the one often highly conservative and dominant view of knowledge, teaching and learning for all schools, Indigenous perspectives offer other insights and means of analysis, reflection and critique. These can open up fields of creative and critical learning for all children, including the dispossessed, marginalised and disenfranchised.

This book has been written with educational practitioners in mind and from a framework of progressive epistemology and pedagogy. It seeks to raise issues of global concern, to theorise Indigenous education and to link with the recognised privileged literature. It details and provides one approach of respecting Indigenous culture and knowledge in schools, an approach that has been called participatory narrative inquiry. Inspiration has been drawn in the first instance from the general views of John Dewey and Paulo Freire. Dewey's approach towards integrated knowledge and inquiry learning is very consistent with the standpoint of Indigenous peoples around the world. Freire's development of critical pedagogy and literacy provides a framework for educational action at all levels in schools and elsewhere.

The proposal for participatory narrative inquiry as the basis of curriculum for Indigenous children in both mainstream and non-mainstream schools has evolved from the seminal work of Jean Clandinin and Michael Connelly and from Mary Beattie. The work of Thomas Kuhn and the philosophy of science has informed proposals for exemplars of Indigenous knowledge and practice arising from a narrative curriculum. What is significant about this body of literature for schools is its adherence to personal experience as the central element of all learning and that systematic inquiry of practice that leads to changed practice establishes the conditions for new understandings and challenges for both teachers and students. Finding ways for this approach to personify or at least be included in the school curriculum for Indigenous and non-Indigenous children alike is the task ahead.

Interested readers will probably not comprehend the book from cover to cover, but will browse its contents to make connections with current problems. It is intended that the book will have international scope and relevance although it has been written from an Australian point of view with Australian examples of practice. Readers will note that regardless of the broader issue being discussed, the position of analysis that is reached and the strategies for change that are proposed have a similarity about them. This is to be expected if the basis of each issue is located in colonialism, dominant socio-economic globalised systems and the struggle of marginalised groups for respect and recognition as the stories of ancient lands meet the modern world. There are a number of key themes therefore that run throughout and are mentioned a number of times in a spiral pattern, while some are developed further in separate chapters of their own. These themes involve democratic processes and epistemologies related to a progressive view of life, liberty and learning, specifically inquiry learning that involves cycles of investigation, theorising and reflection, two-way inquiry learning that brings different cultures together for the construction of new ideas and explorations and the features of cultural inclusiveness for all schools and the regular curriculum.

Indigenous education does not seem to suffer from a shortage of appropriate policy documents at the national and international levels. The Declaration on the Rights of Indigenous Peoples adopted by the United Nations in 2007 provides broad guidance within a context of self-determination. There is a range of statements, studies and reports from various countries that indicate an educational direction based upon the acknowledgment and respect of Indigenous culture and knowledge. Many schools have attempted to take innovative action to improve learning outcomes. There is also considerable experience from around the world in enhancing both the policy and practice of Indigenous education. What has proven to be extremely difficult is for improvement to be substantial and to be sustained across Indigenous communities particularly in regards student retention, literacy and numeracy and pathways into ongoing study or the economy. It is the education profession that needs to take responsibility for the establishment of democratic partnerships with schools, communities and organisations and to focus on critical curriculum reform such that culturally inclusive approaches can be implemented for all children in all subjects at all year levels. This is a guiding principle worldwide for Indigenous education.

Practitioners including teachers do not isolate practice from theorising, but engage in cycles of theorised practice as they gather evidence and take action on the many problems associated with their daily work. Action thinking is the dialectic that governs progress. It is recommended then that the book could be read in a spiral form, returning to issues as they are encountered afresh in different chapters and sections. The development of democratic and participatory narrative inquiry incorporating exemplars of knowledge and practice as outlined in these pages is merely one example of how the international experience to date combined with the guidance of the literature can be applied realistically for Indigenous learning in many different circumstances. It is not envisaged that a national policy blueprint will necessarily lead to progress or success in different countries, but that different Indigenous communities will do their own thinking and develop their own actions regarding what works best for them. The international hand of friendship and educational solidarity is extended across the world to peace loving and democratic peoples everywhere.

Melbourne Neil Hooley
November 2008

Acknowledgments

I acknowledge the Elders, families and forebears of the Indigenous peoples of Australia. I recognise that the land on which we live, meet and learn is the place of age-old ceremonies of celebration, initiation and renewal and that the Indigenous people's living culture has a unique role in the history and life of Australia (adapted from the Acknowledgement Policy of Victoria University, Melbourne).

I express my fondest appreciation for the friendship and support shown to me by Aunty Melva Johnson and other members of the Indigenous community of Echuca, Australia during the establishment and implementation of the Bachelor of Education (Nyerna Studies) programme. It was this experience that opened my eyes to what was possible for Indigenous education and the necessity of Indigenous and non-Indigenous people working together in democratic partnership for educational improvement and a more just society.

My warmest thanks are also extended to friends and colleagues Maureen Ryan for her wise counsel and perceptive support over many years, Leonie Francis for her strength of character and personal generosity and to Tony Knight, Bill Walker and David Jones for their principled advice and encouragement in so many ways. I am also very grateful for numerous discussions with Iain Luck, Maria Hopkins and other staff and students at Woolum Bellum School, Morwell Australia, regarding the design and implementation of narrative curriculum for Indigenous children.

Finally, my heartfelt thanks go to Joe Kincheloe for his collegial support in encouraging and enabling this book to be written. It is extremely important in difficult times for progressive educators everywhere to know that they have the support of international practitioners, theorists and advocates in their united struggle against injustice and exclusion. My sincere thanks to Joe and his colleagues worldwide.

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Terminology

The word ‘Indigenous’ in Australia refers to the Aboriginal peoples who have their origins on the mainland, and the islands of Australia and the Torres Strait islander people who have their origins on the islands of the Torres Strait between northern Australia and New Guinea. A capital letter is used for Indigenous people in the same way that a capital letter is used for English people, German people and the like. A capital letter is also used for the word Elder to denote respect and esteem. Various Indigenous names are used for Indigenous peoples in various parts of Australia. For example, the word Koori refers to the Indigenous peoples of south eastern Australia, Yolgnu for Arnhem Land in northern Australia and Noongar for south-west Western Australia.

About the Author

Dr Neil Hooley is a lecturer in the School of Education, Victoria University, Melbourne, Australia. He has interests in critical theory, critical pedagogy, participatory action research and inquiry learning as they apply across all areas of knowledge and the curriculum of schools and universities. He is involved in projects investigating narrative inquiry as a research methodology and as a curriculum construct in primary and secondary schools. He is committed to reconciliation between the Indigenous and non-Indigenous peoples of Australia and sees progressive educational reform as a step towards this end. Dr Hooley strongly supports school–community partnerships as a democratic means of improving social life and of learning from and theorising practice to challenge both organisational structures and personal understandings.

Chapter 1
Global Trends and Indigenous Challenges

> *Conscientisation represents the development of the awakening of critical awareness. It will not appear as a natural byproduct of even major economic changes, but must grow out of a critical educational effort based on favourable economic conditions (Paulo Freire, 1974, p. 19).*

A defining trend throughout the modern era has been the spread of an evolving capitalism across the world. This process has been accelerated throughout the twentieth century, more recently involving the decline of Keynesian economics and the welfare state, uneven development between nations and regions, a serious weakening of alternative economic ideas and practices, the development of information and knowledge economies in association with industrial economies and unprecedented technological change leading to instantaneous communication worldwide. Socialist revolutions, most particularly in Russia and China, have not been sustained in terms of the development of socialist economics and democratic organisation that are substantially different to capitalist practices. For some, such changes constitute the 'end of history' where market monopoly capitalism has triumphed and the liberal, parliamentary model of governance has become increasingly accepted as the way to individualise and privatise social existence. For the progressive peoples of first, second and third world countries, the dominance of the seductive market has been difficult to combat with the ideologies of personal prosperity and ambition replacing collective humility and integrity. On a global scale, market economies exist through monopoly and finance capital that still generate war, aggression and exploitation. New narratives or the new application of old narratives to new market circumstances seems urgent if the vast majority of the world's peoples are to make continuing progress towards peace, justice and a humane future for all citizens.

Plotting the impact of global forces across history and the world is difficult enough, but additional layers of complexity and uncertainty are involved when Indigenous issues are contemplated. Consideration of Indigenous perspectives especially regarding ecology, conservation of country and living in harmony with the environment, together with a deep sense of commitment to community and family, offers a different way of looking at the seemingly intractable dilemmas being created by global pressures. While there are significant problems that must be resolved

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regarding Indigenous education within current systems of schooling, there is also the possibility of imagining and creating new forms of knowledge and organisation for all children more in tune with Indigenous knowing as a form of democratic life. Trying to solve current problems by keeping everything the same does not appear to be a promising avenue of improvement at any historical time. The confusing matrix of globalisation, democracy, whiteness and Indigeneity needs to be met head on with the best possible educational options for all children being pursued without fear or favour.

Questions arise as to the inevitability of globalisation and of what type, the extent to which its character can be mediated or indeed combated, the impact that its application has on ideology, values and aspiration of the citizenry and, consequently, the direction of humanity itself. Two frames of reference are possible. A modernist analysis will continue to emphasise the threads that link events throughout the centuries so that practices and programmes that seek equity and justice underpin social life. On the other hand, a post-modern view will emphasise the fragmentation of society and the possibility of changing the location rather than the whole. Clearly, the modernist builds on the Enlightenment ideas of rationality, emancipation and a more generalised truth, whereas the post-modernist accepts that late capitalism is more individualistic rather than collective, that the nation state is outmoded and is replaced by regionalism and that daily existence can be based on personal rather than grand narratives. In many respects, the conflict between the modern and post-modern is academic, but some of the issues raised are part of a globalised reality.

Giddens (1999b, p. 12) discusses globalisation in terms of a 'complex set of processes' that impacts on both global and local aspects of social living. As mentioned above, it involves the diffusion of neoliberal and market economies including an emphasis on knowledge and financial markets, the expansion of parliamentary forms of government, of new information and communication technologies and the changing roles and activities of everyday life for men, women and children in many countries. It influences the relationship between time, space and distance. Giddens (1999b, p. 6) tells the story of a friend visiting a remote village in Africa and, rather than being invited to a traditional ceremony, was shown the Hollywood film *Basic Instinct*, on video, before its release in London. The 2008 Olympics in Beijing being watched by a majority of the world's peoples may be a similar instance. Could it be that the 'invisible hand' of markets as envisaged by Adam Smith (Fitzgibbons, 1995) regulating products, prices and perhaps by extension culture is at work here? From an industrial point of view, globalisation has resulted in the restructuring and redividing of national economies, labour markets and resources to the extent that the manufacturing sector of many countries has been markedly weakened with numerous industries and jobs moving off-shore. Privatisation of public sector services and resources is a major trend. The collapse of the Soviet Union in 1989 is seen as being a motive force in globalising liberal political movements. In more recent times, there has been a strengthening of neoconservative ideology primarily from the United States and certainly after the attacks of 11 September 2001 that sees unilateral action as being the right of the powerful even to the extent of pre-emptive military strikes. The influence of this ideology was evidenced by a statement from John Howard, the

former prime minister of Australia, when he advocated pre-emptive strikes by the Australian military if thought necessary against terrorist operations in the Pacific region. Globalisation has brought the concept of nation state itself into question particularly through the appearance of new economic zones and regions across the world. From this discussion, it seems that globalisation is constantly changing and is difficult to define, but its influence on the world is permanent and all-embracing.

Educationalists in all countries need to grapple with the main features of globalisation and the malleability of their systems of schooling that may be allowable to initiate change and improvement. The impact of market ideology, information and communication technologies, fragmented social order, liberal forms of governance and an apparent diminished role for overarching principle and narrative means that institutions operate within a very different socio-political framework to that which was established after World War II for example and the acceptance of the welfare state. A starting point for such analysis must be the undoubted primacy that economic development holds in all countries.

The Centrality of Economics

The issue of economics is often not discussed in terms of a capitalist versus a socialist perspective, not only because of fundamental opposition to the latter that can exist but also because of the collapse of Soviet communism and a perceived lack of relevance of socialist thought to the current circumstances. A political 'third way' (Giddens, 1999a) has been sought but this appears to be a more benign version of capitalism, a modified 'social democracy' that has not proven itself in practice as yet and has not gained widespread support. Socialist analysis is not so much incorrect or irrelevant at present, as being in an extremely difficult low period following the political turmoil of the past century. There has been limited experience of socialist economics forming the basis of a country's budget and commercial, industrial and agricultural enterprise unfettered by war and the numerous problems of internal development that follow revolutionary change. The principles of socialist economics, however, embrace a collectivisation of effort, centralised planning and distribution of resources, social rather than individual gain, a recognition that all work is important for the community and that families draw upon the facilities of the state on a reciprocal or needs basis. The value of commodities is seen to reside in the amount of labour that went into their production and surplus value results in earnings for the work team or village for distribution as it sees fit. Employees become alienated from the productive process when they are not able to access the outcome of their efforts and are confined to fragments rather than an overview of their work. Over time as the socialist system matures, there appears to be little to prevent enterprises becoming more autonomous and in retaining more resources for community benefit. The problem here of course is how to prevent the line being crossed where the essential nature of work becomes more oriented towards capitalism than socialism, towards individualism than collectivism.

Institutions under capitalism will reflect capitalist values and forms of capitalist organisation. For schools and universities, this will involve knowledge for individual benefit and competitive rather than cooperative approaches to teaching, learning and assessment. For socialist schools and universities, the opposite will tend to be the case and, while the links between education and production will also be strong, they will contain the additional features of social intent and human progress. Socialism is a grand narrative that has emerged in the modern era as a counterweight to unbridled economic aggression that encourages periods of boom and bust and of development at any cost. Its systems of education will be based on these values and will participate with fields of knowledge that are similar to those of capitalism. An economic system that is more cooperative will generate institutions that are themselves more cooperative; an economic system that seeks to distribute resources fairly will create institutions that seek to operate fairly; and an economic system that values the work of all citizens will establish regimes of study that sees all programmes as connected and valued. Human knowledge will be seen in relation to interaction with and reflection on the natural and productive worlds, while social knowledge will be seen as reflecting the economic system of society.

Relationship Between Knowledge and Economy

Industrialised societies have a need for a different mix of knowledges than those that have shifted to a more knowledge-based economy. The so-called post-industrial nations (or even, post-national regions), which are few in number and are usually the stronger economies of the first and second worlds, will develop education systems that emphasise the information and tertiary sector over primary and secondary industries. Such countries have had a marked decrease in the workforce of the latter sectors, often relying on off-shore support for imports and low-wage workers, and have a higher proportion of their budgets allocated to information, service, entertainment and tourism. On a world scale, it is difficult to argue that the total economic basis of wealth production has shifted in this way, with large populations still being subject to war, poverty, unemployment, minimal incomes and access to adequate public health, housing and education provision. It is interesting to note for example that in a modern, second world country like Australia, the current strong economy is based on an industrial minerals and mining export boom that is supporting the energy and power hungry needs of China. This means that the globalised economy still has need for the same types of knowledges that have existed throughout the modern era.

From a socialist point of view where wealth is created from human labour and the production of commodities through exploitation of natural resources including animals, the question of wealth creation via knowledge poses both a practical and a conceptual problem. It demands that the expression of a particular idea through intellectual labour generated by an individual sitting at a computer screen can be equivalent to the physical labour of a workforce on the assembly line contributing

to the manufacture of a motor car. Central to the idea of knowledge production under socialism is the unity of practice and theory where both are present at all times and each can be considered the other for the purpose of analysis. Again, on a world scale, both approaches to wealth currently apply and even those states or regions that claim knowledge and information status exist within a mixed economic totality. The value of currency remains hinged to the level of production of goods rather than the production of ideas with an imbalance still causing economic inflation and depression.

The global knowledge economy will require education systems that support a capitalist mode of production founded on ideas, innovation, the arrangements of intelligence and individual creativity and innovation. This implies a more flexible and inventive approach to employment and particular jobs, rather than the transmission of a narrow range of skills. Most countries of the world are still not able to fund a universal primary and secondary system of education, let alone a post-school, technical and higher education sector as well, but the knowledge economy does seem to require a more literate and numerate population with higher levels of general education. There is also a ground swell from the population at large that education be made more available to everyone. Even within the relatively strong economy of Australia however, retention rates to the completion of secondary school are still reasonably low and participation in post-school study and training programmes of various types is still lower than thought acceptable. There are skill shortages in various trades and for manual workers, and short-term labour for some specific agricultural work is now being sought from Pacific island nations. These are structural considerations that leave untouched the actual arrangements that need to be put in place to develop the teaching and learning appropriate for a knowledge and information society. Incorporation of the new and constantly changing information and communication technologies is seen as being an essential part of this process although its actual enhancement of learning remains in dispute.

Burgeoning Technology

Technological change has been a feature of the modern world from the time James Watt patented the steam engine, to nuclear energy and the dropping of the atomic bomb on Japan and the conclusion of the human genome project. It continues to have its critics but until recently when legislation has been passed in some places halting certain aspects of genetic cloning, the dual pathways of science and technology have been key elements of western progress; they are both strongly linked to economic development. Other fields of new information technology such as artificial intelligence and the building of smart weapons that have enormous implications for social life have more often than not escaped a critical gaze. The environmental movement has been successful in having such development adjusted somewhat in various cases and the impact of western technology on third world countries causes concern. In general, however, science and technology proceed unimpeded with the

benefits being seen as outweighing their toxic characteristics. Carbon trading and emission control of green house gasses have emerged as a recent approach to dealing with the problems of global warming and climate change, but this has yet to be implemented extensively let alone on a world scale.

Silicon chip technology that enabled the miniaturisation of computers for rocket and space application now not only occupies a command position for business and industry, but has placed considerable computational and creative power in the hands of ordinary citizens the world over. The pocket calculator in the 1970s, for example, quickly made some aspects of the school curriculum, especially mathematics, redundant as well as introduced new techniques and topics. The more recent convergence of microcomputing, video, television and Internet communication has pushed the tidal wave of globalisation exponentially and the enthusiasm generally shown by the world's peoples for access including those of the third world means that technology of this type has extreme implication for capitalist and consumerist expansion. What must be done with this reality is to identify what it is about the technology that makes it so attractive and powerful to people from all walks of life, the main features of it that are in the interests of the people and equitable social progress and how its most pernicious effects can be minimised.

In western societies, the microcomputer has been appropriated for educational use at all levels including for the very young, although its significance has still not been finally agreed or observed. There is little doubt that the microcomputer in its various guises is most familiar to the young in relation to entertainment, communication and schooling, with mobile telephone and hand-held technology also becoming commonplace. New mobile phone capabilities are constantly being expanded and consumed by people of all ages and backgrounds. While technological change has been obvious over the centuries, the computing power that is now available to younger people, often before parental approval or consciousness, is significant and is a point of departure from previous times. Educational institutions have in essence remained as they always have despite the large expenditure on equipment; they are still organised on the basis of those who know instructing those who apparently do not; courses of study remain locked within narrow time frames; and a regurgitated approach to assessment is adopted. These relationships still dominate technological design for educational application as well, reflecting the core values of the economic system. A democratic step forward would involve students enrolling in 'no-content' courses, where programmes are completely negotiated around a small number of learning outcomes and with non-graded assessment techniques being criteria-based rather than content-based.

There seems little prospect that humanity will turn its collective back on science and technology in preference for a more traditional, pre-industrial lifestyle. If globalisation and consumerism has depended to a large extent on the application of microcomputing into all aspects of daily life from early childhood, then ways must be found of ensuring that its influence on beliefs, culture and customary practice must not dominate. This in effect is to oppose the economic system, a somewhat difficult task when large transnational corporations and their moguls argue for instance that technological convergence and infotainment is a democratic movement across

the world, spreading knowledge and prosperity wherever it is beamed. One approach might be the establishment of public spheres of discourse and critique of whatever shape and vitality in workplaces, schools and universities and other forms of community organisation (see Chapter 15). The public sphere is seen to exist between local arrangements and national decision-making legislatures, is non-coercive and is intended to inform the struggle for views and policies rather than be the struggle itself; it is communicative between all participants rather than strategic for the purpose of winning a dispute. A range of public spheres can be set up throughout the citizenry around the key questions of the day in an informal manner with informal leadership. In terms of contributing to civil society, the public sphere will of necessity critique the economic system with the intention of at least changing its direction. The creation of public spheres is realistic for many countries and institutions under current conditions and supports disadvantaged groups in challenging dominant world views and value systems.

Respecting and Repositioning Indigeneity

Socialist thought considers that society is constructed on an economic base and superstructure model where economics is the main although not the only determinant of socio-political life and where there is a very strong relationship between the forces of production and the relations of production. In a philosophical sense, ideas are seen to be collective and public, generated from the contradictions contained within social practice and production, rather than being individual and private. This view is criticised on the grounds that it tends to reduce all practice to economics, is too deterministic in that it seems to disregard human agency and ignores issues such as culture, managerialism, bureaucracy and gender. An alternative sociological model suggests a system/lifeworld arrangement (Habermas, 1987) where daily life can be uncoupled from system influence, although a possible colonisation process of the former by the latter is recognised. Opposition to the economic base/superstructure view is suggested because of its lack of nuance and recognition of other factors, the inevitable conflicts that arise from economic development and the imbalance of wealth between different social classes and countries. The rise of fascism in the 1930s was an example of this as tensions and antagonisms between capitalist nations grew. On the other hand, if the economic narrative can be quarantined from other community issues, or the lifeworld separated from the system, then social life is not reduced to economics and there is greater scope for personal action and growth. It is somewhat paradoxical that those who reject the base/superstructure version of humanity, and therefore the existence of class conflict that it identifies, can also put forward a classical middle class or bourgeois analysis of society of an idealised and disconnected system/lifeworld in an effort to deny a social class structure.

The political discourse encountered above must appear strange to Indigenous peoples around the world; the ravages of racism, discrimination and dispossession

because of European settlement at least at one level are obvious. These issues can be traced and linked historically and together with issues of identity, connections with the land, explanations of origin and kinship relations all form part of a continuing narrative that must be protected and strengthened. Fourth world Indigenous peoples who live as oppressed nations within settler second world countries view such features as the building blocks of a grand narrative that extends across modern and pre-modern times. Indigeneity is in fact usually overlooked by the post-modern and by many middle class sociologists who draw their intellectual traditions from Europe and have a Eurocentric view of the world. The struggle by Indigenous peoples for recognition and reconciliation is very much a modern struggle that includes all of the issues of economics, knowledge and technology raised above and which by definition cannot be resolved in a decentred, fragmented, localised and simulated way. The dialectics between subject–object, structure–agency and consciousness–reality still apply.

Let us take one example of the Indigenous grand narrative, or indeed meta-narrative, that of connections with the land. This facet of Indigenous philosophy will be encountered a number of times throughout this book. As Kunnie (Kunnie and Goduka, 2006, p. 258) outlines, the cosmologies of Indigenous peoples indicate 'that all life is interwoven and inextricably connected as part of the spiritual web of the universe.' For Australian Indigenous peoples, the theory of origin involves the spirit people moving across the land and creating all the people, animals and land features as they went. Depending on location, the spirits still reside in the land or sky and their totems must be respected; to destroy the land is to destroy the ancestral beings and to destroy the very place to which you must return on death. Such a view of origin has extended across the millennia and is passed on to each generation via the Elders through story, ceremony, cultural artefact and initiation. Like religion in other societies, the Indigenous explanation of existence constitutes the very being of traditional belief and links all social and physical experience. A materialist explanation of humanity also recognises a connection with the land for all peoples, but there is a major difference between an acceptance that the atomic composition of people and land is similar and dialectical, whereas the connection between people and totem is spiritual. It is probably the case that non-Indigenous people cannot fully comprehend this relationship and, apart from wealth and private property considerations, is the philosophical reason why native title deliberations are so difficult to communicate. An Indigenous spirituality of land must, however, be taken on trust by non-Indigenous people and be respected as a key point both of essence and of difference between cultures.

The Indigenous question brings into stark relief the analysis of base/superstructure or of system/lifeworld. Is it possible to consider issues of culture, identity, history, poverty, unemployment and disadvantage separate from the economic arrangements prevailing in any country? This is of particular importance given that in most settler societies, there is very little purely traditional life remaining with most Indigenous peoples combining traditional and contemporary experience and living in regional and urban settings as minority communities.

The presence of satellite dishes and mobile telephones as well as the workings of the welfare state makes the total exclusion of capitalist culture, values and influence most unlikely. Can active colonisation of the lifeworld by systemic forces be excluded or minimised and how? For an unencumbered, undistorted Indigenous lifeworld to proceed it must not only deal with Indigenous issues separate from non-Indigenous influence, but build a Berlin Wall between exploitative and racist tendencies as well, in the same way that non-Indigenous people must resist and forge a progressive future.

Working to transform reality within the context of a base/superstructure ideology will lead to a transformation of Indigenous consciousness and for non-Indigenous associates as well that the system/lifeworld cannot. The interests of Indigenous peoples seem to be more congruent with a modern, socialist view than the post-modern capitalist view. There is a holistic approach to society that attempts to reveal the connections and threads often hidden and to act on them as a whole, to continue to moderate the narrative of existence, to explore the map of consciousness and false consciousness. A consideration of specific items in isolation from other items on which they are based denies the meaning that each derives from the other and, in fact, denies the reality of Indigenous community as it is found in dominating countries. The notion of an exclusive Indigenous public sphere can serve to generate supportive and collaborative environments within which Indigenous citizens can discuss the world from their own perspective, but these will need to cover economic and global questions and certainly, they must ultimately be taken to an inclusive public sphere of all citizens for progress to be made. Indigeneity is a concept and practice essential for a compassionate modern world.

Exploring Ideology–Critique in Open Societies

Contrary to its original meaning regarding the study and application of ideas, the notion of ideology in the modern world can now be taken as a distorted or extreme relationship of understanding between thought and objectivity that particular groups seek to enforce on others. Ideology, however, arises from material practice and will therefore differ between classes, the consciousness and false consciousness of the bourgeois, for example, taking a different historical path to that of the proletariat. In defining ideology as a strongly held and self-defining set of ideas that underpin economic and political action, there are similarities that can be drawn between culture and ideology. Culture is seen as being concerned with individual, community and collective action and contains more scope for flexible thinking; it is thought to be democratic rather than autocratic. In political terms, an ideology tends to be imposed, while culture tends to be created. Religion is a good example of an ideology based on an immutable collection of ideas or dogma, to be proselytised by designated agents of the organisation. Non-acceptance of the programme by faith leads to serious personal guilt and punishment. Does the globalised and post-modern world promote a strengthened ideological view of economics, culture, knowledge

and Indigeneity, or does a more fragmented, fractured reality enable independent thought and a greater facility for personal agency?

The terms ideology and critique are often separated by an hyphen to indicate at the same time their opposing and dialectical nature. To be ideological can often be thought of as being dogmatic and to have views that remain the same over time regardless of evidence and dialogue. Critique on the other hand means to provide clarity, advice and analysis on which changed views can be formulated or at least contemplated. Various forms of ideology–critique can involve political judgements being made on the basis of explicit external and internal viewpoints that are available for scrutiny, an analysis of evidence that is either cohesive and compelling or may be difficult to defend because of arbitrariness, criticism of a framework that is clearly biased towards a particular social class and recognition that a specific view is being put dogmatically merely because it is assumed that another can be dismissed and will have little significant argument or relevance. The relationship between ideology and critique is significant in attempting to determine how different entrenched views and practices are challenged and changed, perhaps even liberated or emancipated to some extent. If ideology and critique are opposites never to meet, then protagonists are locked into positions with little scope for movement. The dialectical conception opens up the possibility of transforming one into the other through a variety of techniques, not only the rational, scientific. A progressive philosophy seeks to not only know reality, but also change it for the general good. How this might work across cultures for Indigenous and non-Indigenous peoples confronting questions of racism and reconciliation for instance is a case in point.

Most citizens, knowledge workers and researchers have their underlying ideologies or seek to promote their ideology to one extent or another, although this will often be denied on the grounds of free will. There may be an ideology of democracy, feminism, racism, capitalism, individualism, Catholicism and the like. To say otherwise is to propose that humans are empty vessels who conduct their lives totally disconnected from the lived environment around them. Each ideology constitutes a world view or paradigm that fundamentally directs thought and action. Rather than a denial, it is vital that the ideological basis of work and lives is exposed and that the process by which events are interpreted and analysed is known and thrown open for democratic discussion.

Even if the model of competing world views and dominant paradigm based primarily on the economic system is only reasonably accurate, the implications for educational systems in an open society are immense. There is the question of achieving ‘critical mass’ of changed experience and reflection so that paradigmatic and stereotypical views are seriously contested, rather than merely refined. There is the dialectical relationship between reality and consciousness and the transformation of one to impact on the other for changed understanding. There is learning to act with civic courage against your own specific interests or, at the very least, to explore those ideas and options that arise because of active engagement with complex self-organising systems where new ideas emerge from disparate situations. To profoundly learn where no one has gone before or where the learner has not gone before means challenges of this magnitude.

In the modern world, both the socialist and capitalist view would posit the existence of a universal truth or set of principles, themes and discourses that help explain the nature of the physical and social realities. The modern physicist for example may seek to contribute to a 'theory of everything' although whether it is possible to describe all phenomena with a small set of propositions remains doubtful. From a post-modern perspective, such a totality breaks down, to be replaced by a changing mix of localised ideas that are relative more than absolute and promote uncertainty rather than certainty. In fact the post-modern rules out the prospect of certainty, whereas the modern view accepts uncertainty on the road towards a more definite understanding. A viewpoint for example is seen to be true if it corresponds closely with reality. That is, when it is generally agreed that X is in accord with Y, where X is the perception of experience and Y is the phenomenon of experience. In both the physical and social sciences, truth has scope for ongoing practice, interpretation and theorising and can change with time. There is the initial question or hypothesis, some participation in practical work, the collation and speculation on or explanation of results. Personal or fundamental theories that emerge from such a process are understood as being tentative and will remain the accepted view only until such time as further evidence comes to hand. In the way that globalisation has occurred to date, the quest for truth still proceeds but is tempered by market requirements regarding its specificity or generality such as the knowledge necessary for military, medical and economic application or the knowledge necessary for social and political application. Another paradox arises here with the search for personal truth, individual autonomy and reciprocity directed strongly by an overarching of capitalist ideology existing elsewhere.

Indigenous peoples in Australia and around the world must confront the process of globalisation in the same way as non-Indigenous people. Indigenous scholars and activists need to be familiar with the trends occurring and be able to propose options in the best interests of their communities. This will require moving across and between traditional and contemporary knowledges and practices, of utilising the best ideas from different cultures for mutual intent, of working with friends and allies and of going outside the placid zone of daily happenings to challenge understandings. This is a difficult process for Indigenous cultural warriors, but while personal knowledge does emerge from the swamp of localised experience, it is also fashioned by those who have stood on the bank and interacted with a diversity of others. Each event has both a specific and a general context with the neural network of understanding being activated as a whole, not in part. As Giddens pointed out, the globalised world is in fact characterised by a number of features, not one, and while social fragmentation is true, it also proceeds by the global contact of dominant economic powers seeking to expand their might and influence. At one level, knowledge is individualised through personal capacity and reflection, but at another it is dependent on the collective experience, reflection and pressures that occur as a result of community biography. It is knowledge that is non-neutral, existing within a distinctive socio-economic Indigenous paradigm; there is a personal transformative consciousness where a one-to-one correspondence with reality is changed into a more reflective, critical and ultimately emancipatory process of critical awareness.

Emancipation of thought that breaks from the current paradigm or panopticon of experience within which a person lives requires some epistemological assumptions and questions. These relate to theories of knowledge, whether learning occurs holistically or in parts, human objectivity versus subjectivity, positivism and empiricism. In modern western epistemology, these are usually considered from a materialist, structuralist, deductive or philosophical point of view. For example, philosophers can suggest that objectivity is impossible or it is distorted by a class perspective, accept that a totality rather than specific aspects is all important and see knowledge as being constructed only within the mind. On the other hand, the materialists claim that a human objectivity is possible, that there is a correspondence between experience and understanding and that a general empiricism produces knowledge by sense perception only and the study of events through systematic measurement. As with everything else, it is difficult to categorise exclusively into such compartments, and an overlap of views is entirely possible. Humans acting as agents of change work within both constraining and enabling structures in a knowledgeable although often confused way, bringing to bear their political and cultural intelligibility as best they can. Thus is the confusing process of knowledge.

When considering Indigenous perspectives on such matters, similar points need to be taken into account, those involving approaches to ideology and critique such as democracy and racism, the generalisation of experience, the formation of local and broader narrative and the manner by which culture and knowledge are formatted and passed through the generations. In addition, the question of kinship, community, identity and spirituality in a non-religious sense must be unravelled to inform an Indigenous scholarship and epistemology. For example, in defining western mathematics as a system of logic and relationship between quantities, it is possible to develop a similar relational approach based on kinship. (Mathematics and numeracy is discussed elsewhere including Chapter 13.) This suggests that the contradiction between Indigenous and non-Indigenous consciousness including that of knowledge is not the central aspect of the question of globalisation, but rather its resolution.

How can fourth world views of dispossessed Indigenous peoples retain their identity and strength while being subject to the pushes and pulls of the first and second world perspectives? What is the principle aspect of the contradiction on which its resolution must depend? This is an ideological question that is not to be imposed on Indigenous peoples who live as oppressed nations, but rather form the basis of a process of liberation and education. Beginning the analysis from the western, modern and scientific viewpoint cannot be avoided by non-Indigenous participants, in the same way that dealing with the contradiction from a traditional perspective cannot be avoided from Indigenous participants. What is required is a process of ideology critique from both sides of the equation so that the imperatives, assumptions and biases are clear and dealt with throughout the process of two-way reconciliation. Such a critique then flows on to include the practices, structures and institutions of the dominant society so that these can be transformed into more progressive sites of social life and possibility.

The above discussion has attempted to introduce and sketch some of the issues that must be confronted when dealing with the phenomena of modernity and

globalisation. The task for practitioners now becomes one of developing such issues in more depth and of identifying the major implications that can be drawn for educational practice to assist the broad process of reconciliation and emancipation in Australia. The characteristics of modernity defined as that period of time since the industrial revolution including the Enlightenment and development of modern science form the backdrop to such investigation and action and can be noted as being

- capitalist and socialist economic systems, institutions and cultures including the rise of neoliberal and neoconservative ideologies;
- concentration of economic and political power;
- aggression, exploitation and violence involving nation states and groups;
- struggles for independence and forms of democracy and citizen expression;
- community participation and movements;
- anti-racist programmes and Indigenous self-determination;
- scientific development and technological change;
- social and personal uncertainty at local, national and international levels.

The current period of modernity has added new trending detail to the broad mix described above. This includes the lack of counter-hegemonic political theory; military and therefore cultural dominance of one superpower; the decline in authority of the nation state and the emphasis on individual, pluralist and inward-looking existence compared with community and national direction and discipline. Further important trends involve the difficulty of providing for all citizens in a social justice, equity and welfare sense and the paradoxical influence of accessible communication and information technologies on both connecting and splitting communities. Such detail adds to the major aspect of the modern contradiction, rather than converting it into something else. Ways of coping with new pressures of this type need to be grounded in the meta-understandings and great narratives of human progress and be simultaneously grounded in the daily practice of communities everywhere.

Indigenous Strategies

We must now attempt to summarise and emphasise the features of globalised problematics and opportunity that can be grasped by Indigenous peoples, hopefully working in partnership with non-Indigenous colleagues. No country large or small can remain unaffected by the global economic, political and cultural influences that have built up a huge momentum and Indigenous peoples cannot remain aloof as well whether they aspire to separate or inclusive development. It is they who must decide whether the tentacles of globalisation can on balance be utilised for local benefit. Each country however has its own particular set of economic, political and cultural forms and histories that relate to the global context in different ways. This provides some scope for Indigenous peoples to position and reposition themselves in relation to non-Indigenous power and culture, to fashion their own futures and identities and

to establish processes of self-determination in their own interests. Dynamic interchange between past and present, between traditional and contemporary practices and between cultural and scientific understandings is required. The basic question for Indigenous peoples is whether to search for allies and common ground within the nation state or to take an oppositional stand towards all non-Indigenous structures and procedures and attempt to shape an entirely independent and separate 'state within a state' approach. For Australia as elsewhere, the road to Indigenous self-determination has been long and gruelling since British settlement and many major problems remain to be overcome, not the least of which is political agreement within the overall Indigenous community itself. International, national and local covenants and formalisms can be of assistance.

In September 2007, the United Nations passed the *Declaration on the Rights of Indigenous Peoples* (UN, 2008), a document that had been 20 years in the making. Only four countries voted against the declaration, the United States, Canada, Australia and New Zealand. The Chair of the International Indigenous Peoples′ Caucus commented to the General Assembly in the following words:

> The Declaration does not represent solely the viewpoint of the United Nations, nor does it represent solely the viewpoint of the Indigenous Peoples. It is a Declaration which combines our views and interests and which sets the framework for the future. It is a tool for peace and justice, based upon mutual recognition and mutual respect (IWGIA, 2008).

Adoption of a multilateral rather than unilateral statement of this type is extremely significant in the current era of globalisation and provides wonderful support for the democratic struggles of Indigenous peoples everywhere. A new Australian prime minister was elected in late 2007 and agreed to reverse Australian opposition and endorse the statement. Australian opposition had involved concerns about one law covering all Australians and the possible superiority of Indigenous customary law, problems with self-determination within the nation state, rights to land and the right of veto on Indigenous issues. The United Nations had already made clear that the declaration operates within national law, is not retrospective and is a statement of intent for the guidance of national governments. While it is possible that challenges to Australian law could be made in the High Court on the basis of various articles in the declaration, this is a right that is already available to all Australian citizens and groups on any matter and should not be denied for any Indigenous topic. Let the independent judiciary decide.

At the national level, nation states need to act within their constitutional frameworks to resolve contemporary issues. It is often said for example that the law is quickly outdated in relation to information and communication technologies. The constitution itself can provide opportunities for Indigenous action. In Australia, there has been discussion of including a new preamble to the constitution that recognises the distinctiveness of Indigenous life and acknowledges history, identity and cultural heritage. Such changes require a referendum and opens up discussion amongst the citizenry on a range of difficult issues such as the nature of Indigeneity, rights to land and the combating of disadvantage. In a similar way, the apology by the Australian prime minister in February 2008 on behalf of all the Australian

people regarding the removal of Indigenous children from their families has prompted a vigorous debate regarding reparations. There have been a small number of instances where compensation has been paid by the court to children stolen in this way, but this has been done on a case-by-case basis, as distinct from national policy. A previous report had recommended that compensation be paid through a tribunal rather than court process, but this has not been agreed. In the same way that native title claims are exceedingly complicated and protracted, it is envisaged that compensation for the removal of children will take many years to resolve.

Finally, at the community and family level, the impact and pressures of globalisation can be resisted or ameliorated through local strategic engagements. Obvious areas here include the maintenance of cultural traditions, the creation of local economic activity for employment purposes, the use of new technologies for communicative, educational and economic interests and the development of local approaches to health and education that integrate Indigenous and non-Indigenous understandings. Conservation of the environment in the age of global warming and climate change offers opportunities for joint work that is historic, cultural and practical in scope. Progress with these issues demands that all participants have experience of a range of cultures, that projects of mutual importance can be developed with respect and esteem and that communities have a shared vision of purpose and direction. Given that health and education are daily features of life for all citizens particularly as regards their children, the struggle for democratic and inclusive systems can unite everyone regardless of class, race, gender and culture. The unrelenting ravages of globalisation in subsuming all within its path in fact create the very means for the building of stable and committed alliances for dignified social progress and a compassionate civil society.

Chapter 2
Building Democracy

> *A society which makes provision for participation in its good of all its members on equal terms and which secures flexible readjustment of its institutions through interaction of the different forms of associated life is in so far democratic (John Dewey, 1966, p. 99).*

Systems of economic and social organisation based on the principles of private profit or public good, have each struggled with the practice of democracy throughout the twentieth century, indeed across the modern era. From a public good point of view, the establishment of democratic practices has been hindered by the impact of war and the lack of theoretical and practical experience in the construction of appropriate political forms, infrastructure, economic enterprise including agriculture and national defence. While capitalism is a general advance on feudalism and has adopted some decision-making procedure of popular involvement, it has particular interest in maintaining social division of wealth, power and privilege. Such difference between the two systems demonstrates the major contradiction that exists between the private or public good, a difference that would be expected to be seen across all aspects of a non-idealised society.

The question of democracy is now more urgent than ever before as globalisation grows at a chaotic pace and the aggression that exists between nation states takes an unimagined and untheorised, uncertain path. On a global scale, the ineffectual role of the United Nations has been revealed as a failure to define, diminish and moderate international conflict, to not be able to prevent the unilateral action of others and is often only required for peace keeping exercises. Where liberal and representative parliamentary government has been instituted in particular countries, it is subject to the manipulating influence of executive control, corporate interest and big power politics. Such influence may be unavoidable as history merely working itself out, but it does demand an active critique of social life rather than mild acceptance. For countries with weaker economies, the process of globalisation sets up intractable tensions as the mass diffusion of telecommunications makes the products of development more known to populations at large and enforces moral decisions between wants and needs. The creation of independent economies that are not voraciously assimilated by first and second world appetites will be very difficult to achieve in the

N. Hooley, *Narrative Life*, Explorations of Educational Purpose 7,
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globalised world. This poses considerable threats to the culture and sustainability of Indigenous communities.

Associated with the spread of parliamentary democracies, has been the trend towards privatisation and substantial shifts of resources away from the public sector. This process is justified on the grounds of increased efficiencies and the freeing up of government funds for other purposes, such as reduction in debt and the subsequent improvement in credit ratings and interest rates. In many cases, marketisation has resulted in the selling of utilities such as power, water, transport and increasing the extent of private ownership in public health and education. Perhaps more importantly, economic privatisation leads to an ideological privatisation where a life governed by personal aggrandisement begins to seep into the collective consciousness. Pivotal comments such as 'society does not exist, only individuals', governing for the 'aspirational' rather than the 'perspirational' voter where asset accumulation becomes primary, the transformation from 'a nation of stall holders' to a 'nation of share holders' all contribute to a shift from the public to the private interest. These ideological directions are crucial to globalisation and are seen as forming the basis of liberal democratic purpose. In other words, the two-party parliamentary system is not a neutral good in its own right, but is constituted as an explicit framework for capitalist ideological expansion. Under these conditions, it is necessary to develop a very clear view of the essential character of democratic life and how this might be pursued in different countries with different globalised biographies.

Determinants of Democracy

Nominating democracy as a key component of modernity does not mean that it is non-ideological and should not be contested or critiqued as yet another imposed ideology, but that it has features highly valued for a compassionate humanity not found or of lesser priority in other structures. The essential feature of democracy is its capacity to promote an open engagement with experience, knowledge, culture and history in ways that encourage deep understanding. More particularly, a creative search and enquiry that is always open to insight and challenge and an evolving truth. By definition, an ideology of this type makes the imposition of will by decree if not impossible, then extremely unlikely. The search for truth and knowledge can take place with a flexible guidebook where major ideas are available but subject to change or rejection as the human project unfolds. This is in stark contrast to the postmodern cultural relativism, where truth itself is in question and all ideas are relative and equally valid.

Democratic forms of social life should not be idealised or considered in simplistic, unidimensional terms such as the two-party parliamentary system, or the concept of voting and majority rule. The following broad parameters need to be kept uppermost:

- Economic, cultural and employment arrangements that set up horizontal rather than vertical processes of authority, responsibility and relationship as the basis of autonomy, reciprocity and personal dignity.
- Resource allocation that meets the needs of all people within an appropriate framework of principle and enhancement.
- Decision-making structures that are inclusive, participatory, persuasive and consensual and that are intended to support the interests of the entire group.
- Aspirations that include social progress and change in all fields rather than the status quo for the purposes of improvement.
- Approaches to the quality, equity and meaning of daily life that are holistic and integrated regarding work, family, culture, learning, political and recreational activity.
- Theories of society and theories of practice that emphasise the continuing unfolding of history, the role of all citizens as agents of change, the unity of practice and theory in all phenomena, a compassionate science and technology, protection of the natural environment and critical and participatory processes of investigation.
- Consideration of the relationship between public and private interest.

These parameters attempt to deal with the main elements of globalisation noted above, those of economics, knowledge, technology and ideology-critique. They are applicable for all citizens, Indigenous and non-Indigenous. Their scope is much broader than liberal and representative parliamentary democracy. An integrated matrix of intersection and interaction needs to guide transformative action between all the issues concerned as the development of democratic process occurs. Table 2.1 outlines such a matrix.

The above summary table illustrates cells of opportunity for action. The assemblages suggest a correlation between capitalism and religion and a correlation between socialism and science. By definition, the aggressive expansion of capitalism leads to the need for markets, land and wealth called fascism, a process that is not necessary or theorised under socialism. There are some similarities between capitalism and socialism in terms of higher standards of living although the extent varies. The quest to explain life and to find meaning is common to both religion and modern science and both can be subject to external forces. The private/public divide is very clear under different economic systems. Prospects for democratic action within the intersections or cells therefore vary, are generally complicated and onerous and need long periods of time, perhaps epochs. Reversions as well as steps forward are to be expected. While some thinkers deny social progress as an inevitable trend and similarly the movement towards a socialist economy, the history of the world to date suggests that progress towards a more democratic future is possible such as the destruction of Apartheid in South Africa. Small steps in one direction do not of course prevent large steps in an opposing direction at the same time and perhaps over long periods of time.

An economic system that privileges personal gain over collective progress will establish institutions that emphasise difference over direction, vertical relationships

Table 2.1 Intersection of political-democratic tensions

	Capitalist	Socialist	Religious	Scientific
Economic, power	Private profit and property Differentiated access Possibility of aggression	Collective gain Distributed across society Communitarian	Faith Authoritarian	Evidence UncertainAutonomous
Decision-making	Individual Status-driven Private good	Collective Public good	Dictates	Research and knowledge
Aspiration	Private gain	Public and social good	Life meaning	Life meaning, explanation
Culture, learning	Personal betterment, expression	Collective Contribute to humanity	Give thanks Celebration Closer to deity Understanding	Expression, understanding
Theories, philosophy	Explain, interact with reality	Explain, interact with reality	Promote word of superior beings	Explain reality
Private, public	Private gain Ruling class	Public good Proletariat	Private or public Relates to group or humanity	Private or public Relates to group or humanity

of hierarchy rather than horizontal modes of cooperation and an ideology of individualism. This means that the relations of production will construct and reconstruct human values in their own image, of a dog-eat-dog nature where anything goes and the prospects for a respectful and dignified social existence are severely curtailed. It is difficult to see how the forces of production can be kept separate from everyday life when the workforce goes home at night or how both the economic base and politico-socio-cultural superstructure can conduct their activities uncolonised by the other. The unequal relations between the powerful and disenfranchised, between men and women, parents and children, old and young, city and region, will surely reflect these realities. For the idealist, rational change is the great hope, but for the pragmatist, strategic action is the messy necessity.

In small communities, decision-making for all can be the responsibility of all, but as the overall size of the population increases, this becomes more difficult and some form of representative democracy can be instituted. Whether or not it is possible for anyone to truly represent the views of anyone else can be debated, although it is surely possible for the one to represent the general interests of the group. If procedures are open, reasonable, non-coercive and consensual with all participants being heard, then formal voting on issues may not be required. If agreement or consensus cannot be achieved, however, then voting can be used as a method of resolution and depends on the final decision being accepted by the group as a whole, even though there may be minority disagreement. The concept of majority rule or democratic centralism is only appropriate when democratic process has been followed; if not, there is no obligation on the minority to subject themselves to majority rule. The procedure of voting is often held up as the epitome of democracy, but it can in fact be used to mask entirely unsatisfactory and undemocratic relationship between participants and can be a means of exercising both personal and factional power.

The democratic process must of course permit and indeed encourage all views to be exposed and considered for as long as is necessary. This means that capitalist, socialist, fascist, racist and sexist views are permitted, although there may be democratic decisions taken to limit their expression and practice. As noted above, democracy itself is an ideology, so its opposites must be allowed to challenge for prominence. The essential components of a democratic view will be debated as well, but the nature of popular governance, a religious versus a materialist philosophy, the notion of theory building and robust reflection on practice for change and betterment, the right to actively critique social and economic direction, the concept of a human morality and the like, seem essential to a mature democratic life. These will always be open to question and contrary views in different historical periods will be stronger or weaker, depending on the base to superstructure ratio. The question of ideology-critique is therefore central to an understanding and practice of democracy at all levels of society.

Throughout the modern era, the human construct of democracy has depended on how the contradiction between private and public interest is being handled. Storming the palace to replace a kingdom with a republic and external with internal authority is done to make a fundamental shift between these two ideologies. Clearly, an economy that sees its engine room being driven by private concerns will ensure that

its social organisation, institutions and structures support a private and individual philosophy. Under capitalism, a parliamentary system of government, for example, will only be permitted to continue while its outcomes protect minority privilege and wealth and increasingly, its international backers. Proposals to nationalise banks or large corporations generally cause major disruptions that can lead to the intervention of the armed forces. In Australia, an elected Prime Minister and progressive government was sacked by the Governor General in 1975 ostensibly because of a budgetary crisis, but according to another analysis because too much of an independent stance was being taken towards national sovereignty (Kelly, 1995; Whitlam, 1997). A constitutional emergency was thus created and for a time it was thought that military action was possible, but this did not occur and new elections were held. Socialist learning or even mildly non-conservative governments in capitalist countries face an enormous task when overseeing the massive transfer from private to public rule, particularly when the forces of production may not be highly developed and issues of poverty and unemployment are extremely difficult to combat quickly, on a mass scale. Under such conditions, the organs of socialist discipline such as revolutionary committees usually mirror social arrangements, that is institutional boards and management groups may have to work alongside political units as well and, in protecting the gains already made, may tend to overly extend their role. However, the ringing in of new social and economic circumstances through a period of major discontinuity should maximise rather than restrict democratic experience and, in fact, should recognise that economic advancement without a corresponding increase in a strengthening of public democratic rights and responsibilities is not a social advance of any significance at all.

Epistemological Democracy

What does democracy have to do with education? If, as mentioned in previous notes, the purpose of education is to serve the economic and political concerns of the nation state, then democracy does not necessarily have a place in education at all. On the other hand, if the educative function of formal systems of education is to be taken seriously and to act in the interests of communities, families and children whatever their background, then regular schooling and teaching in democratic societies should be organised democratically for everyone. Schooling is one of the major areas of society where all people come together for a common purpose and have a shared intention of achieving the best possible outcomes for children. Democratic schooling therefore provides experience for all communities in democratic process and enables a practical comparison of the advantages and disadvantages of democratic and non-democratic arrangements.

Democracy can be considered in a somewhat narrow sense as a form of governance only, whether for countries or for institutions within countries and can consist of voting procedures only that occur every few years. Parliamentary democracy is a definite advance to what exists in many countries around the world but as mentioned

above processes that elect representatives to state and national assemblies do not necessarily result in the voice of the majority being heard and its will being done. Representative democracy can produce narrow power blocs that support the interests and privilege of the few and consolidate disadvantage for the many.

Dewey (1966, p. 87) had a more expansive view of democracy and put it this way:

> Since a democratic society repudiates the principle of external authority, it must find a substitute in voluntary disposition and interest; these can be created only by education. But there is a deeper explanation. A democracy is more than a form of government, it is primarily a mode of associated living, of conjoint communicated experience. The extension in space of the number of individuals who participate in an interest so that each has to refer their own action to that of others and to consider the action of others to give point and direction to their own, is equivalent to the breaking down of those barriers of class, race and national territory which keep them from perceiving the full import of their activity.

In this passage, Dewey has drawn a strong connection not only between democracy and schooling but also between democracy and learning. He argues that democracy is a way of life that involves interest, action and experience that is associated and communicated for all. He goes on to suggest that this approach to learning can encourage a broader vision than that confined by the socio-cultural determinants of the dominant society and one that establishes the conditions for reflection and critique. In this sense, democracy has an epistemological imperative. It is difficult to see how students can investigate topics fully and communicate and reflect on their observations and interpretations if their explorations and thinking are restricted in any way. This means that the relationships that exist between and within knowledge must be available for experimentation and appraisal so that all possible options can be viewed and reviewed, thought and rethought. Students need to be able to do their own thinking and challenge their own thinking from the standpoint of all knowledge being respected equally. Working through the health problem of a child, or finding water when lost in the bush, or when investigating the relationship between the radius and circumference of a circle all need to be handled democratically.

Pearl and Knight (1999) have been vigorous for many years in their advocacy of democratic schooling in the United States and Australia, particularly as it supports in their view the primary object of schooling as being the ‘responsible, informed and active citizen’ (p. 15). They comment that ‘large problems lack solutions not because they are insoluble or that democracy is an impossible project, but because we have not been democratic enough in our efforts’ (p. 3). They seek to push past Dewey and his emphasis on child interests so that there is greater accent on the goals and social outcomes of schooling for communities. While pointing out that they consider democracy as ‘an ever developing concept and that it needs to be continuously reinvented’ and that ‘democracy cannot be mass delivered to classrooms’ (p. 15), Pearl and Knight detail the characteristics of a democratic classroom as being:

- persuasion and negotiation in place of coercion or laissez faire choice;
- inclusivity rather than exclusivity;
- a problem-solving curriculum that includes personal and social problems and is made equally available to all students;

- equal participation in decisions that affect student lives;
- a very limited number of rights that are inalienable for all students;
- equal encouragement to classroom success for all students.

These viewpoints and approaches have many implications for the conduct of regular schooling. They envisage a set of working arrangements for students and project teams that is based on autonomy, participation and communication. They see projects as having purposeful problem-solving qualities decided by the team itself, linking with the personal concerns of team members and the broader concerns of community. They propose a reflexive, discursive learning environment that corrodes the iron cage of social determinism and builds new prospects for imagination and investigation. If classroom democracy must be conceptualised and built, however, to meet specific conditions rather than be imported in final form, then primary teachers will need to engage pupils in taking on a variety of roles in project teams and secondary teachers will need to establish processes whereby senior students are comfortable in having their views subjected to ongoing debate. This is Dewey's view of education 'as a continuing reconstruction of experience; that the process and the goal of education are one and the same thing' (McDermott, 1981, p. 450), not the provision of doctrine and predetermined studies. Certainly democracy itself must be lived rather than taught.

As indicated by Pearl and Knight and in a similar manner to the development of personal experience and learning, all parents, teachers and students will come to their own interpretation of democratic association and understanding and how they might be enacted in schools. With its epistemological meaning, democratic approaches are necessary in all subjects so that learners are unrestricted in their endeavours to act and know. While mathematical and scientific knowledge, for example, can be highly respected, it must not oppress the learner to the extent that there is little scope for original exploration. Experimentation, creativity and invention are essential components of all learning at all levels, shaping and reshaping the ideas and practices of what has gone before. Democratic teachers, however, will find the going tough if located in schools or classrooms that have a more conservative view of learning. Merely following the one narrow approach to literacy and numeracy will not enable teachers, new teachers and students to explore their own understanding and prejudices regarding these knowledges and how they might work with others to unlock the creative talents and prior experiences of young learners. It would seem that under these conditions, careful discussion of democratic approaches is required within teacher teams so that the work programme for the year can be established on more flexible and progressive philosophical principles.

In raising these questions of democracy and learning, we are attempting to define and negotiate a theory of practice that does not accept the status quo in schools and universities, but a process of ongoing theorising that is fearless in confronting challenge and change for improvement. This is in contrast to a status quo that takes current circumstances including the curriculum as inviolate and which results in a static rank ordering of children and their capacities. A partnership arrangement that theorises theory and practice on a daily basis through the pursuit of democratically

negotiated problems and projects generates a view of teachers, new teacher and school students as resourceful and knowledgeable social agents actively fashioning their own destiny. This involves generating environments where all educational participants act, experience and reflect making connections with current experience so that new events can be considered with invention and ingenuity. A community of practice or network of interconnections needs to be framed as best we can by an organisational and epistemological democracy that enables all participants to act on their social worlds for cognitive and public transformation and benefit.

Law, Morality and Ethics

In the democratic countries and parliamentary democracies, we are all equal under bourgeois law to beg alms and sleep under bridges. A legal system that is primarily intended to protect property rights and the chain of inheritance for the wealthy cannot be fair or democratic, acting in the interests of all. A conservative view suggests that the colonisation of Australia enabled progress in terms of European culture, civilisation and law, but for the original inhabitants, it contributed to the destruction of an egalitarian way of life that is still trying to recover and go forward under the new circumstances of dominion. If the law is based on a moral view of humanity then the creation of morality needs to be examined from an ontological or epistemological perspective. Does a British or European morality exist everywhere as the normal order of the universe, of being human, or is morality and the right way of conducting human affairs uncertain and in many respects unknown until required, constructed epistemologically from human practice in the same way as other values and beliefs. If so, a process presumably democratic and discursive embracing all of the citizenry for enabling this to happen will be required.

A division of rational, socio-economic living into cognitive, aesthetic and moral dimensions means that societies can provide guidance from the perspectives of truth, art and justice. From a constructivist point of view, a moral position arises within such cultures when a response to a question can be universalised and is generally agreed as being true. Truth arises from the dialogical outcomes of practical situations, rather than exists in abstracted, disconnected forms. Moral validity needs to transcend the concrete, but at the same time needs to connect with and ground the democratic validity of concrete conditions. A ‘discursive ethics’ (for a discussion regarding Habermas and ethics, see Outhwaite, 1996) may be the vehicle to allow this to happen, where citizens search both privately and publicly for a generalised truth to which they can relate using reason and experience as a basis for communicating their ideas to others, to reach agreement or consensus and to guide action. The aim is not to convince colleagues of their incorrectness, but to move towards mutual understanding. This proposal is somewhat idealised through overlapping of the private/public, strategic/communicative, individual/collective, desire/reason and base/superstructure dualities, but it supports a proactive, transformative human agent capable of independent thought against false authority.

Morality defined as a distinction between good and evil must be associated with ethical practice, the means of promoting the good and of living by an appropriate set of practical behaviours. Morality can be seen as an ontological requirement, to be human is to be moral even though such a property may not be explicit. Given that the same morality does not seem to be present uniformly around the world, it may be that ethical practice emerges from different cultural circumstances and that the history of humankind has not as yet enabled a commonness to occur. The transition from capitalism to socialism would obviously impact, with the appearance and development of 'socialist human' as a moral advance. An Indigenous ethic would construct approaches to changing the land or rivers for food production, the treatment of animals as totems, kinship relations and the transmission of the lore via stories and ceremony. The question of morality and ethics is a major point of departure for understanding between the Indigenous and non-Indigenous cultures and one that needs to be brought into the rubric of reconciliation forming threads of interconnection.

Construction of legal procedures on the basis of democratic communication, discourse ethics and a promotion of the good, does not appear to have primarily characterised either capitalist or socialist nation states to date. The law instead becomes an essential aspect of the state apparatus to protect itself and its defining economy and to ensure that any challenges to its legitimation are overthrown. A recent inclusion of family law in the more developed economies illustrates such a conflict where, established on adversarial principles, the changing globalised relationship between men and women is mediated solely on property and economic factors and has little to do with the truth, justice and equity of personal relationships, or indeed sadly the well-being of children. Some attempts are made at providing for a genuine resolution of family problems, for disadvantaged groups through programmes of legal aid and through the provision of pre-court counselling procedures. These however remain minor aspects of the difficult contradiction faced by ordinary people when embroiled in the legal system. If the law is to become something more than an ass, more democratic and in turn, become a stronger pillar of a democratic society, the grasp of power and privilege must be shaken through critique and a conversion of the law from private advocate to public legitimation undertaken.

Indigenous Democracy and Law

When foreign warships appear in the harbour, democratic process and statues are thrown out the parliamentary and court house window until such time as a new political regime is installed in power and new laws are enacted. This has been made abundantly clear yet again by the wars in Iraq and Afghanistan. Attempting to deal with the rights and responsibilities of fourth world nations within such realities when invasion and settlement occurs, adds further layers of complexity. The possibility of setting in place democratic and discursive arrangements that reflect Indigenous

concepts of history, community and law, which are often in marked contradiction to those of the dominant culture, are slim at the best of times. The dominant culture will do whatever is necessary to ensure its own interest.

Indigenous life in essence is based upon family, community, sharing and a direct connection with the land; there is little emphasis on individual gain and the accumulation of personal assets. The social and economic influence on traditional values in countries like Australia, is strong, where there is considerable overlap with the dominant and contemporary culture. A high proportion of Indigenous people have access to western technologies, institutions, employment, educational programmes and welfare benefits. Given that the majority of Indigenous people are also of the younger generation, the impact of globalisation through computer-based systems and telecommunications makes the cross-cultural influence even more pressing. This must present a huge conflict between traditional ways of life and the situations that occur on a daily basis. The law is a case in point, seeking to impose European bourgeois values and punishment for transgression. The extremely high proportion of Indigenous people either in gaol, or who have been in gaol, indicates this contradiction. For example, commissions of enquiry on issues such as deaths in custody make little difference to incarceration rates and to subsequent events. The failure of modern school systems to accommodate a range of approaches to learning disadvantages all students and accounts in large part to the high dropout rate of Indigenous children at the secondary level. While many official reports contain reasonable recommendations, there appears to be great difficulty in the capacity of institutions to change their fundamental procedures to meet cultural difference.

European law needs to adapt to consider Indigenous traditional values with respect and to have some degree of understanding of the problems being faced by communities. In Australia, some jurisdictions have taken a more inclusive view on the issue of alcohol and drug abuse and a range of similar misdemeanours by encouraging support and community assistance, rather than an automatic gaol sentence. The inappropriateness of mandatory sentencing for Indigenous people on the basis of ‘three wrongs and you are in’ has been recognised and the practice abandoned, although not in all cases. Questions of ‘payback’ where Indigenous penalty is administered by Indigenous people perhaps in addition to European law also need to be considered by the legal system in some way. The establishment of Indigenous courts and legal procedures that attempt to counsel and mediate community matters in the presence of Elders is a positive gain. There are questions as to whether this process is separate from regular court procedures and undermines the principle of ‘all are equal before the law’. Overall, it is difficult for the dominant culture to accept that certain issues should not be considered a crime when conducted by an Indigenous person because it is in accord with traditional law, or to disregard certain matters because they are accepted as community customary law. In addition to this, the role of the settler society in oppressing or disadvantaging Indigenous peoples because of racism and the injustices and values that are built into the economic system are ongoing matters that need to be dealt with on a daily basis. Questions

of poverty and unemployment, for example, generate severe problems for the entire community, especially for those who suffer the most. It is quite unjust to penalise citizens who find themselves in situations not of their making and of course, to not attempt to remove the conditions that cause such problems in the first place.

Two broad courses of action need to be agreed and undertaken if major progress on an improved democracy and its associated legal system is to be made for Indigenous groups across Australia. The first involves a recognition of the rights and responsibilities that accrue for Indigenous communities and secondly, the specific approaches that translate these into action, in this case regarding the law. It seems clear for instance that reconciliation is not a possibility until such time as all problems and questions surrounding native title are resolved. Indigenous people have a right to land access under conditions negotiated with the national community. There are concomitant responsibilities regarding land use, conservation, the development of enterprises and access by other peoples. The issue is multifaceted, but when land rights are normalised, it could be expected that they will impact on other social issues such as retention rates in schools, relationships with local residents and the like. In other words, the connection between rights and responsibilities that are difficult to establish at the moment in a distorted and unequal society will become activated. How are the specifics to be transacted? What procedures will be required for the leasing and purchase of land for individual use in communal townships, the rental of housing, protection of native plants and animals, pollution of the land and waters and access to sacred areas? Will a representative land council, for example, be constituted to manage a specific native title area on behalf of all local people? How will rentals be collected and distributed? These questions are the nuts and bolts of local reconciliation, when Indigenous and non-Indigenous people take up serious issues in a serious way for mutual benefit. Rather than creating a false distinction between rights, responsibilities and procedures, an integrated, dialectical approach is required. This could be called a democratic ‘two-way’ approach to reconciliation.

Is a two-way approach possible for the law? Some of the initiatives noted above move in this direction, but must be conceptualised and pushed much further. An ideology of anti-assimilation or inclusiveness means that both cultures attempt to identify the key features of social life that are preferred and how they might come together for realisation. In terms of the law, it might be agreed that mediation is always the first step, rather than the application of penalties or punishment, so that legal systems come to a better understanding of the issues involved and that cultural dominance does not occur. More compassionate approaches are required to deal with the impact of cultural practices such as alcohol or rampant individualism with such matters being decided by Indigenous community officers so delegated. Major issues regarding racial violence may need to be decided by the dominant culture alone, as being completely unacceptable. The borders between both legal systems need to be more flexible and the connections of the law with a moral and ontological origin, appreciated. Within the constraints imposed by the economic system and its requirements, more democratic and communicative procedures must be possible.

Civil Society

As history inexorably continues to work itself out, the struggle for democracy as a key component of the social and economic system, waxes and wanes. It could be claimed that capitalism is the system out of control with civilising forms of social organisation subject to private instead of public economic gain. The prospect of modern socialism acting as a democratic lever on economic development in the public interest is usually considered unlikely and one that has had limited success to date. With both types of economies, however, it is possible to argue for the concept of a 'civil society' (see Chapter 15; Habermas, 1996) as a democratic arrangement of citizen association where some open participation with and influence on the state apparatus is possible, without exercising direct control. The civil society is conceived as involving all aspects of social life that impinge upon or dominate how citizens think about and interact with each other in an equitable and compassionate way. Communication would need to take up issues concerned with the public versus the private good, community versus individual wants and needs, progress towards universal or normative truth, rationality and justice. These ideas and principles are essentially modern and apply to all regardless of class, race or gender.

The civil society has a significant existence within the globalised setting of bringing together the local and the general, of providing a touchstone so that the immediate and concrete can be related to broader trends and explanations. For the constitution of civil society this may include equity of access, equality before the law, non-discrimination on the basis of class, race or gender, recognition of cultural diversity and the like. To work towards the realisation of this situation, a public sphere would need to establish a daily discourse within neighbourhoods and families that can ground such thinking particularly within questions of ownership and the interface between different world views. The purpose here is not to advocate a definitive social life such as capitalism or socialism, but to identify some major features of a discursive democracy that will contribute to a more equitable and just humanity. A discourse of this type informing and informed by political action and critical self-reflection locates progress at the community level and encourages a recognition of accomplishments, values, difference and similarity that directly combats the fears and violence of racism.

The ideology of the economic system can act in both blunt and subtle ways to mould the public consciousness. Issues and decisions that need to be debated around the kitchen and workplace table are strongly influenced by factors such as employment procedures and taxation requirements, mortgage and insurance pressures, bureaucratic arrangements for health and education for adults and children, literacy considerations and cultural practices from national and international sources. These are important issues to be confronted under both capitalist and socialist economies where daily imperatives are related to national and international concerns. In accordance with the globalised world, telecommunications play a central role in this process to the extent, for example, that debates regarding national curriculum are made sterile by a dominating internationalisation of culture and knowledge already underway via television programmes, music videos and sporting carnivals. Discussions at

the community level need to be able to critique these forces and to navigate between the various options available. Citizens can decide to reject the products of technology, the artefacts of foreign culture, the aspiration of the bourgeois class and an individualistic philosophy of meaning. Alternatively, decisions can be made in favour of minimal private gain, of a more modest standard of living and for an indigenous culture. Such decisions will not be made of their own accord, but will need to arise from a platform of investigation and informed critique permeating the civil society.

In an educational sense, the theories of experiential learning developed by John Dewey stand in marked contrast to the positivist views that tend to dominate European education. Like da Vinci, Dewey was before his time although his views were understandably influenced by the excitement and development of modern science. Inquiry learning is tolerated by capital but occupies a minority position. As the conditions alter and the economy shifts to a more information, knowledge and creative base, the building of knowledge by interest rather than decree becomes more realistic across institutions even under capitalism. The making obsolete of current educational approaches and structures by political, economic and technological change may not be complete as yet, particularly in third world countries, but the internal contradictions continue to grow. These trends are substantial questions for the public sphere concerned with reconciling knowledges and respecting different cultural backgrounds. For progress and improvement to be made in the social realm regarding philosophical ideas and the journey towards truth, there must be a respectful and reflective relationship between our ideas and our practices and a capacity to establish new relationships and structures to learn from their operation and what is possible. These processes form part of a public sphere of communication and consensus around the major philosophical questions of the day.

Schools and universities can play a significant role in promoting a more civil society and the public sphere by establishing robust regimes of teaching, scholarship, research and community partnership that sees learning as active production/construction and not passive reception/instruction and knowledge as dialectic between practice/theory, between knowing/doing. These values are in alignment with an Indigenous world view and begin to break down the contradictions that exist between Indigenous life and formal European systems of education. New forms of culturally inclusive curriculum, teaching and assessment will also be required. For the modern world, progressive unifying narratives and normalising ideas still form the basis of social progress and these will arise from the battle between truth and untruth. It should not be assumed that understandings of such a profound nature only occur to a small number of individuals, but can be the preserve of groups as well. The American theoretical physicist and innovative teacher Richard Feynman (1999) pointed out the importance of uncertainty and doubt in science: ‘To make progress in understanding, we must remain modest and allow that we do not know. Nothing is certain or proved beyond all doubt. You investigate for curiosity because it is unknown, not because you know the answer. And as you develop information in the sciences, it is not that you are finding out the truth, but that you are finding out that this or that is more or less likely.’

It is accepted that mere talk of a civil society and some of its features and intent as noted above will not cause it to happen. This is particularly so in many countries of the world that still experience war or oppression or where the ravages of poverty, unemployment and discrimination hold sway. Under these difficult circumstances, the institution of liberal democratic frames of decision-making represents a social advance, although it is still possible for such arrangements to be veneer rather than substance. The desire for a better, more satisfying life must be an expression of community will and not be imposed with impetuosity or artificiality, to resonate with the public mood. The quest for greater civility and personal autonomy can act as a framework for action perhaps through the establishment of one or multiple public spheres, both formal and informal. Hopefully, as well as the instrumental, these structures will take up issues of law and morality as the backdrop to popular discourse for Indigenous democracy. The place of the media and other avenues for the communication and development of ideas is essential. Again, it is recognised that more access may be available to some groups and individuals than others with the democratising aspects of new information technologies to be pushed as much as possible. Envisioning a democratic society in this way, of social organisation that runs much deeper than the parliamentary system of representative government would suggest, influencing all aspects of daily life for Indigenous and non-Indigenous peoples everywhere, means that previous political regrets and disappointments must be replaced with the most optimistic and creative dreams imaginable.

Chapter 3
Confronting Whiteness

> *Because all observers view an object of inquiry from their own vantage points in the web of reality, no portrait of a social phenomenon is ever exactly the same as another. Because all physical, social, cultural, psychological and educational dynamics are connected in a larger fabric, researchers will produce different descriptions of an object of inquiry depending on what part of the fabric they have focused (Joe Kincheloe, 2005, p. 333).*

Writing or acting about something you are not is always fraught with danger. A particular frame of reference can be used in ignorance, one that is inadequate and inappropriate and can misinterpret a situation entirely. Alternatively, while attempting to understand what it means to be a person of colour, for example, a white and non-Indigenous person can reflect on his or her own understanding of the world and provide a critique of personal and collective white standpoints. This would hopefully enable a better understanding of personal and different cultures to appear and for follow-up action and change. In her groundbreaking work on whiteness, Frankenberg (1993) describes the concept in terms of the intersections of class, race and culture where power, domination, language and identity collide. This account can be used as a starting point by any person of colour and non-colour as critique of their social and political practice. The concept of whiteness itself is often silent, unnamed and difficult to describe which is taken as an important characteristic of being dominant. McLaren (1998, p. 66) offers a more extensive portrayal when he writes:

> Whiteness is a socio-historical form of consciousness given birth at the nexus of capitalism, colonial rule and the emergent relationships among dominant and subordinate groups. Whiteness constitutes and demarcates ideas, feelings, knowledge, social practices, cultural formations and systems of intelligibility that are identified with or attributed to white people and that are invested in by white people as 'white'.

If whiteness is a social construction like other forms of knowledge and culture, then it can be reconfigured by the players concerned, difficult as this may be under specific economic and political conditions. This process will require a detailed analysis of what it means to be coloured and non-coloured and the range of social action

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that can be taken for transformation of negative features. It also requires of course that critique is possible rather than being locked into a particular view of the world that is very difficult to stand outside for dominant and subordinate alike. Colonialists have a tendency to study those they colonise from a position of cultural and intellectual superiority and accept that their classifications, labels and interpretations are correct. This has been an extremely difficult process to overcome as European expansion continues to occur throughout the modern era. The imposition of racism and the dispossession of land and language places people of colour and Indigenous peoples in an incredibly weakened position and from which the resurgence of culture and community becomes extremely arduous and long term.

Whiteness as a distinct and identified issue is not at present a major aspect of the Australian political geography. As one instance, Anderson (2002) has documented the incidence of whiteness in medical and health services. There may be a view from some Asian countries that Australia is a white bastion of European culture and power in the Asian-Pacific region. The question of race however is certainly of major concern and has been for many years. During the gold rush period of the 1850s and onwards, many Chinese people travelled to Australia and established a presence including in country towns. There were unfortunate instances of racist sentiments and outbursts of violence against Chinese gold diggers at the time. What was called the 'White Australia' policy operated as law between 1901 and 1973 as a means of restricting non-British immigration. Given the settlement of Australia by the British in the 1770s and the arrival of many Irish immigrants in the mid-1850s there were very strong family connections with the United Kingdom through cultural and legislative relationships including the Westminster system of parliamentary government. This resulted in many Australians joining the armed services to go overseas and fight for 'England, King and Country' during World War I. Following World War II and the waves of immigration and refugees that occurred globally, Australia began to open its doors to other Europeans particularly from Italy and Greece to stoke the furnace of post-war reconstruction. Large numbers of people from South-East Asia arrived as a result of the Vietnam War and more recently, refugees from Africa. The issue of Islam and wars in Iraq and Afghanistan have recently raised problems similar to those in many other countries. In general terms, Australia is now seen as a successful and usually harmonious multicultural society, a country that recognises the economic and cultural benefits that a diverse population brings. Australian schools are acknowledged as successful sites of multicultural experience for all children.

In her summing up of the current situation in Australia, Clendinnen (2008, p. 64) puts it this way:

> Meanwhile, Australia itself is changing. My hope is that our increasingly mixed population will prove more reliably open-hearted than the old Anglo-Celt majority mired in a cruel colonial past. These later incomers know what it is to lose a country and a culture, to suffer prejudice and exclusion. They know the struggle to meet obdurate family demands while learning to swim in an individualistic culture. I also hope that as we become more aware of the desperate ecologically fragility of this continent, we will also come to honour

> the remarkable people who through centuries accumulated the knowledge and devised the strategies to live lightly, frugally, in natural rhythm with the land.

These comments recognise that there are remnants of colonialism and therefore racism in Australia, but that progress is being made on their eradication. While not directly concerned with education, they indicate as well the key features of a democratic public system that will play its role in changing the values and practices of a society for the better. They suggest that schooling should be open-hearted and anti-colonial, it should be collective and community minded respectful of local cultures. Most importantly, schooling should recognise the strong philosophical connections that exist between learning and the land, a major theme that runs pervasively throughout this book.

Indigenous peoples in Australia draw a clear line between the notion of multiculture and Indigenous culture. A multicultural country like Australia can include people from many countries and with different skin colour, yet with many similar cultural viewpoints. There may be different language, food and dress, but the philosophical, economic and political world view can have the same or similar reference. As is discussed shortly in more detail, the Indigenous world view is located strongly in connections with the land and the distinctive issues of truth, knowledge, law and community that arise accordingly. For Indigenous peoples in Australia, the question of whiteness has probably been expressed in a practical manner through issues such as recognition under the constitution and law, land ownership and native title of land, the removal of children from their families, the deaths of Indigenous persons when in gaol and continuing social questions of disadvantage and discrimination regarding poverty, unemployment, housing, health and education. These issues are often summarised in terms of overall progress towards rights and responsibilities that should exist, rights as documented in a treaty or similar statement between Indigenous and non-Indigenous citizens and responsibilities that each family and community must accept as Australian citizens living and working together. If injustice occurs to a particular group of people based on race and not others, then that society must confront its racist components and do whatever is necessary to eradicate them. This necessitates a developing understanding of the social, political and cultural perspectives to which different people adhere.

Much of the writing on whiteness comes from the United States and indicates the changing and complicated social circumstances of that country in relation to people of colour. In drawing a distinction between multiculturalism and Indigenous culture, the above discussion suggests that within Australia, a consideration of whiteness will have a similar but different emphasis. It will need to be clear on what constitutes an Indigenous perspective or world view and how such perspectives expresses themselves in relation to culture, knowledge and community. These are central questions for Indigenous and non-Indigenous educators to understand and explore. Kincheloe (2006) underscores the complexities of such matters when he explains:

> In my work in whiteness studies I have operated on the assumption that whiteness studies conducted by white people must always be undertaken as an interracial act. A study

> of whiteness suffers when it is not directly connected to African American studies, Latino/Chicano studies, indigenous studies, ethnic studies, and postcolonialism and the way white power and the historical white construction of 'reason' have attempted to position non-white peoples. Obviously, the histories of the world's various peoples in general as well as non-European peoples in Western societies in particular have often been told from a white historiographical perspective. Such accounts have erased the values, epistemologies, ontologies, and belief systems that grounded the cultural practices of these diverse peoples.

A difficult challenge has been laid down here. The concept of educational work being an 'interracial act' has serous implications for the establishment of interracial study groups or teams that position their work in relation to a range of other studies. European 'reason' is a key aspect of this book as well, given that it is concerned with the Enlightenment period and a critical understanding of the world and the various perspectives that are brought to bear in constructing such understandings and knowledges. Within Australia, dispossession of land has caused in mainstream society the substantial erasure of understanding of Indigenous 'values, epistemologies, ontologies and belief systems' and has created enormous problems for the regular curriculum of schools. While Indigenous communities continue to strengthen local culture, it is not always easy to work in partnership with the dominant society and gain acceptance for the inclusion of different cultural standpoints. In a practical sense, the negotiation of ongoing projects of mutual educational concern is a major strategy for unfolding the cultural landscapes that come together in schools and classrooms.

A general perspective or world view that guides all human behaviour can be approached from an ontological or epistemological position. It can be argued, for example, that all humans are by definition moral and would not be human otherwise, or that morality arises from social practice in the same way as other learning. Both views see human morality as being distorted and developed by history, culture and experience but being able to distinguish what is just and good. Each must grapple with the idea of morality continuing to exist if the world was destroyed tomorrow. A universalising or normative principle such as morality suggests that all humans are walking down the same path although there may not be total agreement as yet towards which destination. There are practical and philosophical questions of power, wealth and economic scaffolds and those of consciousness, critique and agency that need to be decided. What cannot be ignored is the way by which such matters dominate all aspects of daily life and how humans come to an understanding and accommodation of them.

Different perspectives emerge under different economic systems. A socialist morality will be based on an equitable sharing of national wealth between all citizens as determined by the work contribution of each, a collective and public community and culture rather than individual and private, non-aggression towards neighbours and a vision of humanity that promotes a satisfying and dignified life for all. While containing different aspects, a capitalist morality is the opposite of this, particularly in regards to the necessary expansion of markets and territory by force of arms. These definitions show that while human morality may be normative, it varies markedly in its development depending on the economic structures within

which it is located. The rise of fascism and imperialism is therefore inevitable even if not in the interests of millions of people worldwide, as societies struggle to transform themselves into a higher order. The realist sees these transformations occurring within an integrated and murky base/superstructure, while the idealist tries to separate personal and lifeworld changes from complicating systemic imperatives.

Social Construction of Indigeneity

An Indigenous world view will need to confront similar issues to that of the non-Indigenous, although it has the added problem of combating powerful influences of the dominant and increasingly globalised culture. Components of an Indigenous world view will include:

- creation;
- land and environment;
- morality and values;
- truth, knowledge and learning;
- law and justice;
- politics, history and culture;
- community and language;
- identity, family and kinship.

These components can be discussed in three broad groupings. First, there is the traditional Indigenous concept of creation, of being Indigenous, of more than being first and sovereign, but of being itself, naturally, from the land. These are considered as ontological questions of being, what it means to be human and of being in the physical world. Indigenous people of Australia accept that they did not come from anywhere else, but along with the plants, animals and geological forms, where created by the spirit people from Mother Earth as they moved across the land. This process continues and time rather than being linear, is cyclical. People are created from the land, maintain an intimate relationship with it and return to it on death. To sever this necessary relationship means that survival and life itself becomes problematic. Connection with the natural environment and the spirit totems is the basis of a moral life, providing a set of guiding and normative functions that protects the land and establishes what is permitted and what is not. Traditional truth is understood and communicated by Elders when appropriate, with more public knowledge for men and women being available through ceremony, narrative, song and artefact. Truth and practices of this type may be stronger or weaker because of the impact of contemporary issues and the dynamic nature of culture itself; the impact of the land, however, will remain a historic constant.

The second group of components of an Australian Indigenous world view within the moral and legal framework so constructed, involves different Indigenous communities going about their cultural lives in different ways dependent on their

locations and histories. In some places, rock paintings go back thousands of years, whereas in others, painting on bark and canvas is much more recent. While western art is a product of its time as well, Indigenous art can be seen as more of a literature, expressing the stories and values of a people. Given that the size of Indigenous groups is usually small, the place of community, family and kinship relations is very strong. This has resulted in about 500 different language groups in Australia, although the overall number has been reduced since settlement and many languages have been lost. The broad cultural framework within which Indigenous communities find themselves has therefore been weakened over the past 200 years, with serious and negotiated strategies for definition and reconstitution required in a pluralist sense if cultural traditions and linkages are to be maintained.

Thirdly, there is the issue of Indigenous identity. There appears to be little contradiction between the twists, turns and reversals of searching for a universal truth that contains cultural and moral properties, for example, and the ultimate nature of the truth itself. The identity of a people falls into this category, changing and fragmented at various times, more stable and certain at others. National identity like any other human construct does not necessarily lock people into fixed positions, but provides a set of guidelines for interpretation and action. It unites history and aspiration and gives them concrete expression. For some, identity like other theories can be a form of oppression that must be resisted. Extreme forms of nationalism are an example of this. Conversely, for Indigenous peoples around the world, identity seems to be a liberatory idea enabling a foundation of culture, solidarity and social action to be built that links past, present and future. Connection with the land is a reality shared with all Indigenous people in the same way that the selling of labour is shared by all workers.

Harris (1990) has also discussed a number of factors that he considers make up an Aboriginal world view in Australia. He describes religious versus positivistic thinking, relatedness versus compartmentalisation, cyclic versus linear concepts of time, being versus doing, contrasting views of work and economics and closed versus open societies. Harris suggests that what Aboriginal people believe is more important than what they can prove or understand. He comments that 'The really significant event of Aboriginal history occurred when people, the land, the ceremonies and the social system were created. It has already happened, so it is no longer necessary to strive to do, invent and to develop' (p. 31). It is difficult to generalise across Australia as to whether this traditional view remains strong in urban, regional and remote areas, but it will certainly continue to impact on how Aboriginal families view mainstream schooling. If the dominant paradigm of the school curriculum supports empirical knowing from a white European perspective, then there will be many contradictions faced by the Indigenous child in classrooms. There is a question here regarding the inherent nature of European knowledge and whether the strategies, principles and techniques that have come forward are essentially white or more generic across cultures.

A consciousness of Indigeneity that combines all of the features above, of morality, culture and identity, contributes to an Indigenous perspective that can then be applied to the specific socio-economic conditions that prevail across communities.

Fourth world nations (dispossessed Indigenous nations within settler societies) will utilise such a consciousness in analysing and strategising their conflict with the settler state. To argue against an Indigenous consciousness is to argue against the concept of Indigeneity itself, to suggest that reconciliation and self-determination are based on nothing and are for nothing. At some stage in a distant future, it may be that broad alliances of peoples who have similar experience and understanding may come together without the need for specific characteristics. Until that time, specific moralities, cultures and identities will drive humanity forward.

Participatory Thought and Action

Having suggested three groupings or elements of Indigeneity above, it is now possible to consider how each of these interacts with or is influenced by the four important ideas of modernity encountered in Chapter 2, the ideas of capitalism, socialism, religion and science. To this, we can now add the concept of whiteness, as shown in Table 3.1 below:

The cells of opportunity summarised above provide a guide to social change. While the table is simplistic, it does indicate that Indigeneity is more congruent with the pressures of a socialist or socialist learning or socially progressive paradigm rather than a capitalist economic system. A socialist morality will place responsibility for decision-making at the personal level whereas capitalism would tend to refer to a superior being. The question of religion occupies an interesting position in the matrix; however, given that this can be seen as the basis of an orthodox morality on the one hand, or involving the possibility of a spiritual creation on the other. The concept and practice of religion will be no longer necessary when the economic system has developed to the extent of making poverty, prejudice, superstition and problems of working with uncertain explanation outmoded.

It is now necessary for the civil society to attempt to describe a democratic method for participating with issues of this type, that is, issues that are grounded deeply in the economic and cultural systems of various communities and that set up a series of major contradictions between them. One approach can include the phases of action, reflection, critique, theorising and narrative formation. Under the conditions of normal human interaction, each phase can be activated at any time, or perhaps more to the point, a number of different phases can be operating and overlapping at any one time. The action phase, for example, involves the integration of theory and practice when engaging any phenomena ranging from the reading of a newspaper article to a game of tennis. Building up a narrative of experience brings together daily practice over a lifetime to describing particular experiences as they occur. Musing over previous events or even ‘musing in action’ assists a process of reflection to begin the search for explanation and to construct personal meaning. This leads on to personal theorising where tentative generalisations, themes and discourses can be identified for sharing with others, enabling a broad fabric of interpretation of the social and physical worlds. At each phase, it is possible for the human

Table 3.1 Impact of modernity on Indigenous perspective

	Capitalism	Socialism	Religion	Science	Whiteness
Indigenous Morality	Ordained Good versus evil Private gain Aggression Wealth as commodity	Constructed Good versus evil Public gain Sharing wealth as community, story, culture	Creator or spirit	Emergent as property of universe	Dominance based on class, race and position; superiority over colour
Indigenous culture	Personal betterment; expression of values	Contribution to humanity and community values	Give thanks; closer to deity; understanding	Expression of knowledge and understanding	Superior form of expression, values
Indigenous identity	Individual as per dominant culture	Collective and community agency as per non-dominant culture	Recognition of identity within religious framework	Recognition of identity within science and social science framework	Assumed as superior to which all citizens aspire

agent to develop a critique and perspective of the process in which they are involved and to generate an overall critique of social structures, organisation and discourses as the procedure matures. Again, this can happen throughout life as the totality of experience and reflection is brought to bear on each issue, or on each specific issue on a daily or hourly basis depending on intelligent action and the consequences that accrue.

The essential concept of the above process that links it all together and ultimately leads to new understanding is the concept of democratic participation. The main features of this concept that begin to untangle a theory of social participation for all people including Indigenous and people of colour can be described as follows:

- Participation is democratic and honest. When groups of people work together on serious issues in pursuit of a mutual outcome, they are concerned to ensure that each is respected for what they bring to the process and that there is an honest attempt to resolve matters and move forward. Attempting to establish a personal status, or a superior background and experience, does not make a positive contribution. Participants need to disclose bias and perspective so that the manner by which the work, evidence and interpretation are viewed is known to all. A recognition that outcomes may be uncertain particularly with short time frames is also necessary.
- Participation challenges basic ideas. Superficial relationships between people are only concerned with surface and perceptual phenomena, while more substantial and trusting relationships are built over time and concentrate on what might be called deep-structure issues. These by definition challenge our fundamental beliefs and values that constitute what people are. To develop such a situation requires a determination by all to expose what we really think so that this can form the basis of analysis and theory building.
- Participation combines practice and theory. The idea that a practice/theory unity is central to all understanding can only be fully developed when all participants are seen as being equal and are fully involved in all aspects of a programme. If the series of phases noted above is treated as a set of discrete steps, then the full impact of practice/theory will not be experienced and the different perspectives and life understandings that each brings to events, will be diminished. A participation of democratic intent will bring the full range of practices, reflections and musings together so that each question can be illuminated from the most diverse rather than restricted collection of intellectual lamps possible.
- Participation is reflective and insightful. An investigation of human affairs can be conducted from a position of rigidity and prejudice or from a position of fluidity and openness. Democratic participation supports the latter through a systematic process of personal and community reflection, leading to new insights and challenges. Much human activity is not directed at change and improvement or in challenging basic values and beliefs, but in maintaining the status quo, perhaps in support of minority interests. Unless structure and organisation are constantly under democratic review by participants, then socio-cultural changes

are expected to change under their own weight, in effect through a process of exclusion or non-participation.

There is a very important linkage between Indigenous and non-Indigenous perspective, democratic participation and the ongoing construction and reconstruction of personal practice and understanding. These constantly loop back on each over as personal experience develops and accumulates throughout a lifetime. Under certain conditions of dogma and domination, experience and evidence merely bounce off pre-determined bunkers of knowledge and viewpoint, while under others, the conditions for new ideas are more emergent and transformative. Debate on this question ranges from human prospects for an instrumental reason and a technical rationality, or a communicative reason and a moral rationality. Pressures of the globalised economy in particular countries directly impact on which point on the social continuum is more likely.

Communicative Reason

A systematic and long-term study of practice or a process of 'practice into theory and return' may assist citizens in considering human progress and the relationship between instrumental and communicative reason. These relationships will of necessity involve practice and theory, thinking and doing, subjectivity and objectivity and those between the individual and society. These questions go to the very heart of what we understand humanity as being and the great journey being undertaken. It is a modern project that locates humanity within a philosophy of historical materialism and therefore confronts ideology-critique and political economy.

The defining issues of morality, culture and identity noted above for Indigenous communities, are also central for a consideration of human reason, that is, where do they come from and why are they important. A religious view may argue that there is a normative basis for each, whereas a materialist view may suggest that each is constructed through human action, reflection and discourse. Everything is social construction. The creation of a new and moral world via vision and critique is achieved not through the application of a set of values that arise from a prescribed human nature or consciousness, but through adopting a set of agreed procedures that enable humans to make judgements about their ideas in action, about what is acceptable and what is not. Becoming a better person as part of a better economy must be a real possibility, depending on where humans envisage themselves along their historical journey at present including the acquisition of happiness. An instrumental reason can be seen as a logical outcome of human history to date, where what we see about us is as good as it gets, based on an emphasis on individualism, private gain, an empirical science and technology. It can be suggested that history has reached the stage where such matters dominate, or have in fact, won. A moral human reason will require a marked change in direction, where the population is able to decide its priorities and relate to each other in a respectful, non-racist,

democratic and communicative way that enables validity and truth to be examined discursively.

According to the integrated base/superstructure model and more particularly the current nation state and its realities, the formation of moral communities through non-coercive language and communication must proceed within an economic context. This problem is conveniently overcome of course, if the system and lifeworld can be uncoupled. There is also the question of whether it is indeed possible to fashion a general community of morality in a pluralist or laissez-faire society where in effect anything goes, where all value positions are relative not absolute. Many norms seem to exist and are generally agreed informally, some even supposedly in contradiction to economic values, norms regarding for example the humane treatment of children, the imposition of pain on living things, the sanctity of life itself. Many people from different cultures accept these guidelines without ever examining too closely their origins or justification. It then becomes a process of working with such norms or validity claims in practice, as groups of people attempt to reach consensus on major issues, perhaps with competing norms or universals. This is the process of communicative action particularly as outlined by Habermas (1984).

Human strategic action is described as a mode of conduct that is strongly goal directed, is designed to exert authority over another and is devised to be successful and win the case in dispute. Communicative action on the other hand establishes a different paradigm in attempting to establish consensus and to finds ways of approaching truth, those characteristics of human behaviour that are negotiated or are agreed as forming a common meaning. Consensus does not necessarily involve total agreement amongst participants, but enables a pathway for future action. Participants need to approach the process of communication from a standpoint of mutual respect, to examine statements for their norms and assumptions, to undertake to try and understand the views of others, to make comments that are believed to be true and to abide by that evidence or opinion that can be shown to be accurate or true. No one is excluded and has the right to publicly express their point of view. The notion of discourse here means that strategic, technical and instrumental imperatives are removed as much as possible. This is an extremely difficult process to establish given the pressure of power and position associated with each participant depending on class and race and the possibility that their influence might be diminished or redirected somewhat.

The theory that truth not only arises from but also resides in language and communication is idealist at its core. It attempts to disregard the modern characteristics of class, race and gender and the economic foundation on which they are based. Communication becomes the dominant feature of society and not labour. The theory of communicative action exists in mid-air and occurs without reference to the lives of participants. Claims for truth and validity are all open to interpretation based on experience, tradition and culture. The theory does outline a series of procedures that are democratic and respectful and useful for groups and individuals in deciding their interactions with others. It takes place however within the confines of the economic system with communication and discourse manipulated accordingly. However, for people of colour and Indigenous peoples living in fourth world countries

such matters will form a political framework for their potential interaction and reconciliation with non-Indigenous friends, allies and opponents.

Whiteness: Critique for Indigenous Interest

World War II heralded a number of events that acted against white imperial power including the formation of the United Nations. Lake and Reynolds (2008, p. 341), for example, report that 'As European power collapsed in East and South-East Asia, so too did the prestige of white men' particularly in relation to the fall of Singapore. This process continues with the destruction of Apartheid in South Africa and a majority of African, Asian and small countries in the General Assembly of the UN who have a vested interest in anti-colonialism and independence. It follows of course that within this context Indigenous peoples will also develop a political perspective that will critique and combat racism and colonialism. In this respect, a social critique will always be present and cannot be ignored when Indigenous and non-Indigenous people work on joint projects. It will need to take into account morality, culture and identity and the complicated political relationship that these form with ideology-critique and construction of the public sphere. Considering a concrete and indicative scenario like the following background to native title and treaty negotiation may provide some guidance for working collectively on very difficult issues:

> Democratic reconciliation between the Indigenous and non-Indigenous peoples of Australia can be seen as requiring minimum or maximum change across a broad spectrum of social life. The development of a process for considering the scope of a treaty will therefore raise many difficult issues such as sovereignty, self-government and self-determination, the nature of legal systems and the subsequent daily interactions between black and white. There will be many challenges to concepts of human rights, constitutionality, ownership of land and of course, wealth production.
>
> There appears to be two general approaches. First, a treaty that is included in the constitution is signed on behalf of all the Indigenous and non-Indigenous peoples and applies throughout Australia as interpreted by the Supreme Court. Second, a framework act of Parliament inserted in the constitution or not, that allows for local agreements to be negotiated to take into account local circumstances and is referred to appropriate tribunals for decision. The latter seems more appropriate in consideration of local issues such as access to land and rivers, joint economic enterprises and protection of the environment.
>
> As usual, there are different problems encountered when local agreements are to be negotiated in remote areas compared with small towns and industries down the green belt of eastern Australia. Conceptually however there is little to prevent properly constituted land councils accepting responsibility for the stewardship of particular areas including economic development. Semi-autonomous regions of this type will enable aspects of self-government to proceed, excluding the armed forces and taxation, but perhaps adopting a two-way approach to legal matters. This is the opposite of social division and maintains the 'all equal before the law' principle.
>
> The notion of 'semi-autonomous region' for example draws a distinction with that of Nunavut nation in Canada, where a large tract of land has been ceded to the Inuit people of small population. Within Australia, there are many language and cultural groups

> who distinguish themselves from others and who place great importance on relatively small areas of land and waters. A national framework or domestic treaty that allows for lands to be administered and conserved locally overcomes these problems and in fact, would introduce a cultural and economic vitality to many areas.
>
> In the modern era of globalisation and with the future of nation states in doubt, a treaty with the intent briefly described above, will bring people together around the narratives of respect and justice. New communities will emerge that seek to understand difference through systematic processes of inquiry so that issues of history, culture and identity are strengthened for the common good. The alternative is to maintain privilege through power and ultimately violence as issues of sovereignty are usually and tragically settled elsewhere. All Australians demand better than that.

The above scenario illustrates the potential for a coming together of Indigenous and non-Indigenous peoples in a public sphere around the treaty concept and how many issues can be identified for ongoing investigation at the local level. Access to land and waterways, for example, is a crucial local issue for traditional practice and must be resolved in such a manner that recognises the connections that all people have with the natural world and from which they draw meaning and continuity. Strategies for reconciling perspectives and knowledges are desperately needed and the establishment of democratic public spheres for research and communication occur as pragmatic options. Again, as an example, Table 3.2 begins to identify a strategic approach to native title around the three features of Indigeneity encountered before:

Native title and treaty negotiations will of necessity involve the central tenets of Indigeneity which will both clash with values of the dominant culture, but will provide opportunities for moving forward together at the same time. This will establish the conditions for a legitimate public sphere. On some occasions as with native title generally, there will be a conflict of interest particularly in regards to economic development. The question of land ownership or stewardship and financial benefits arising therefrom is extremely difficult especially in urban or regional areas and

Table 3.2 Possible strategies towards native title

	Indigenous	Non-Indigenous	Possible/combined
Morality	Spiritual, from the land, to the land; Mother Earth	Property and wealth connections, rather than spiritual	Environmental programmes and shared enterprise
Culture	Meaning and knowledge drawn from the land	Urban/remote land connections to varying extent	Recognition of cultural significance and support for programmes
Identity	Defined by specific location and family	Defined by work, achievement and individual status	Promotion of local, shared economic and cultural activity

where both lands and waters are involved. There is a very strong emphasis, however, on environmental concerns in most countries around the world and the potential for a range of conservation, scientific, tourism and economic projects is great. Indigenous cultural programmes including film, dance, painting and the like have gained considerable prominence in Australia for mutual benefit and there is every likelihood that this will continue. As the process of reconciliation and recognition unfolds through personal contact and economic and cultural pursuits, the identity of Indigenous peoples will similarly strengthen. Social and local practices such as these are the daily means of combating racism and assimilation and of one culture whether major or minor genuinely drawing strength and inspiration from the other.

What this chapter has attempted to do therefore is to raise the broad issue of whiteness and for it to connect with the problems facing Indigenous education in Australia and elsewhere. It has suggested that there is scope for Indigenous and non-Indigenous peoples to collaborate on democratic projects of mutual concern especially the central question of land and ownership. It has approached whiteness as a particular perspective or world view that arises from the complex junction of class, race and culture and where people of colour are seen to be inferior to people of non-colour. A consideration of whiteness will struggle to find breathing space in community and educational programmes that are based on the hidden assumptions of power and privilege. In discussing the problem of Indigenous knowledge, Battiste (2008, p. 86) points out that:

> . . . few schools and universities have made Indigenous knowledge a priority in educating Indigenous students, much less teaching all students about diverse knowledge systems; instead the focus is on fragmented cultural practices that make visible Aboriginal peoples' artistry, powwows and archival and museum work, which perpetuates notions of Indigenous peoples as historical and local, not contemporary and global with a knowledge system that has value for all.

Studies of whiteness need to grapple with the question of knowledge from a coloured and non-coloured perspective. It may not always be possible to make clear distinctions between the two but 'democratic work in progress' is a much better position to adopt than the imposition of a dominant view only. Encouraging teachers to consider their own understanding of how class, race and culture intermingle in classrooms and define and direct what they do, is a major step forward. Students will also approach topics with a particular mix of class, race and culture and somehow an agreed way of proceeding for that group of students and teacher, needs to be negotiated. This is one of the reasons why classrooms are such demanding places and why tension and emotion can often be present. Learning is a risky business, where all participants need to be prepared to venture into unknown territory with lifelines at the ready as they take each step forward. On occasion, an epistemological whiteness will be insufficient to make sense of a situation and the teacher will need to draw upon a pluralism of understandings, whether fully class, race or culture cognisant or not.

The above discussion suggests that the evolution of a philosophy, perspective and world view by which significant values, practices and ideologies of colour can

be evaluated and guided, is an essential component of the political process that deals with the major issues of our society. For both Indigenous and non-Indigenous groups, a clear perspective will enable a lens of ideology-critique to be focused on key concepts such as morality and democracy and their subsequent application to human affairs. An Indigenous perspective, for example, will need to be able to critique non-Indigenous philosophy of cognitive, aesthetic and pragmatic action through which meaning is constructed and refined. It will need to distinguish between normative questions and questions of practical life as they interact and transform. In reference to Table 3.2 above, the critique will be applied to Indigenous and non-Indigenous cultures so that each can grow and change as history rolls on. There is no contradiction between the holding of normative principles during such time as they are agreed, for example, the principle of freedom of expression and acting on those principles to change certain social practice, or the raising of doubt about certain cultural artefacts that undermine the dignity of ordinary people and children. In fact, adherence to a package of universal ideas precisely means that some will come into conflict with each other as practical situations need to be resolved. In this way, ideas and values alter over time as the socio-economic conditions change, although a smaller number will continue as a baseline for all behaviour. A refusal to engage in cultural self-critique is the basis of dogma and prejudice. Reconciling and reaching compromise with different cultures, values and perspectives will be necessary when considering Indigenous children and non-Indigenous education systems.

European schools and approaches to knowledge are not fixed, certain entities. As part of the base/superstructure, they are strongly influenced by national economies and the impact of globalisation. They are also highly uncertain with many major questions still to resolve and in many respects, have a short history. In Australia, for example, as a typical OECD country, the shift from primary school education to a universal secondary school population is relatively recent, post-World War II. It is still incomplete, with retention rates to the senior secondary years varying from year to year with overall rates still unacceptable for a modern society and in some regional areas, dangerously low. With large distances involved, access to secondary schools in some areas of Australia can be difficult and prohibitive. For those young people who complete secondary education there may be significant curriculum gaps, with mathematics and science being the most obvious. School mathematics in particular, cannot be considered a common let alone enriching experience for all school students. Funding and administrative policies at the national and state levels change to accommodate new governments and international pressures and trends. At the local level, there is scope for participation and change as school management is often under the direction of a representative council and is responsible for both the interpretation and implementation of state policy. It is correct, that European schools will remain locked into the dominant economy and culture, but for Indigenous and non-Indigenous peoples alike, there is the possibility of rigorous critique and impacting upon them to redirect policy and practice from the minority to majority interest. Progressive approaches to teaching and learning offer the best framework for action in this regard.

Literacy, numeracy and Indigenous studies at the primary level are key curriculum areas for the participation of Indigenous communities in regular schooling. This work needs, however, to be approached from an articulated perspective if it is to result in curriculum and sustained change for Indigenous interest. Key elements of the perspective as noted above will include the notions of holistic and integrated knowledge, a moral view as reflected in connections with the land, learning that has a cultural basis and direction and a curriculum that supports and strengthens Indigenous identity. A perspective or world view of this type is neither inconsistent or incompatible with regular schooling; in fact it constitutes good teaching and learning for all children. European literacy in its broadest sense is not necessarily at variance with Indigenous oral communication and the activities that teachers encourage for literacy experience are congruent with both. Numeracy does involve some contradiction, but this is opportunity for deeper understanding as the two cultures and practices come together. A good example of the apparently irreconcilable is that of technology. The dominant place of European technology in countries like Australia seems to fundamentally distort Indigenous life, yet at the same time, there are many opportunities for experiment, creativity, flexibility and communication, features embraced by Indigenous communities and children worldwide. These too are found in the curriculum and can be incorporated for all children. The point here is that schools are not rigid edifices but are there to be challenged and moulded by their communities through a democratic process of dialogue and reflective experience. This is difficult, committed work requiring strength of character and persistence over many years if not generations for even small gains to be made.

Indigenous ways of knowing promotes an awareness of surroundings as a unity, as a relational way of understanding and of living in harmony. It is not correct for the general society or mainstream schooling to seek to impose a dominant and assimilationist cultural perspective on this vision, but to work within the dominant socio-economic system and to identify access points to valued aspects such as literacy, requirements for employment, or dealing with the demands of bureaucratic institutions so that participants work across paradigms with a defensible viewpoint. This includes a systematic critique of European philosophy, political economy and social systems. If however Indigenous people have a perspective of separatism and do not see a reconciled future, then this argument does not apply. The analysis presented has been constructed from a non-Indigenous viewpoint and rather than being the afterword is the foreword to the creation of a democratic public sphere involving Indigenous and non-Indigenous peoples. Such a public sphere on central issues of native title (land), education (knowledge), culture (identity) will need to adopt principles that are inherent to democratic process and a communicative or discursive reason, so that validity claims as they emerge from the conversation can be thoroughly considered, redrafted, accommodated or discarded as the basis of new insight. This is the practical way of coming to an understanding of whiteness and of working together for its eradication.

Chapter 4
Education, Being and Identity

> *A democratic classroom has as one of its missions the establishment of a constituency of discontentment organised for social good. The discontented are mobilised in debates over the applicability of knowledge to perceived problems – the solution of which leads to the amelioration of discontent (Art Pearl and Tony Knight, 1999, p. 337).*

In its most general sense, education is an essential aspect of democracy and democracy an essential aspect of education. Public education that is avail able for all citizens enables personal satisfaction with learning across all major areas of knowledge and establishes pathways for continuing study and links to the economy. It needs to serve the interests of all groups in society. Like theory and practice, there is a unity or dialectical relationship between education and democratic process. An education system that is not truly democratic is not truly educational and the learning deficient. In an undemocratic system of education, critique of history, ideology and of political economy is denied rather than encouraged. The quest for democratic approaches to education becomes more urgent under the impact of globalisation whether the economy is primarily for public or private benefit, a quest that has never been completely fulfilled during the modern era. This may have prompted Dewey (McDermott, 1981, pp. 452–453) to claim that 'education is the fundamental method of social progress and reform' and that 'education is a regulation of the process of coming to share in the social consciousness and that the adjustment of individual activity on the basis of this social consciousness is the only sure method of social reconstruction.' Such a sweeping historical overview of schooling draws a clear line of demarcation with those who have a very limited aspiration for the majority of ordinary people in every country.

The characteristics of an essentially public education system are generally seen to contain:

- learning for the public interest and culture;
- philosophical approach to learning beginning with practice that is applied rather than abstract and with cycles of reflection on experience that transforms perceptual knowledge into conceptual understanding;

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- epistemological unity of practice and theorising, of knowing and doing, of learning and labour and a process of personal connection with the products of labour and intellectual production;
- knowledge that is collective and in the interests of the community related to nature, society, work;
- inclusive and integrated curriculum combining learning with productive labour;
- state funded and supported, secular and open to all without fees.

In contrast, education systems that are essentially private are characterised by:

- learning based on individualism and private interest;
- transmission of predetermined knowledge, culture and values;
- separation of theory and practice, of labour and learning and a process of personal estrangement from intellectual production;
- knowledge that is differentiated in organisation between abstract and vocational and not subject to critical critique;
- state and private funded, religious and non-religious, exclusive and public and fee-paying.

Education and the Economy

When analysing and evaluating the purpose and quality of formal systems of education, the key relationship for the country and citizenry to consider is that between education, training, the economy and production. The key contributing question is whether or not education can be truly democratic under either public or private economic systems. Knight (2002) has submitted that globalisation within Australia has caused a 'business metaphor' to be adopted for schools and schooling involving the notions of 'intrusive, market entrepreneurial, corporatist and managerial' to improve student performance. This ideology descends on all schools enlisting a competitive rather than cooperative ethos.

The exact connection between education and the economy is somewhat tenuous. The assumption is that economies are planned and implemented according to plan. That is, the basis and motive force of economic development is research, knowledge and logical decision-making. In an idealised sense, this is true, broad decisions are made by people based on their best understandings of particular issues at the time. Such directional decisions are however primarily political rather than logical. Whether to send the gun boats or cheque books to colonise a faraway land may involve factual information, but its interpretation will depend on a biased world view. To cross borders with aggressive intent to expand markets or to control land and minds is not an educational matter. Similarly, when a multinational company closes an industrial plant in one country and opens in another, or when shares change hands on the stock market. Educational advice will be available in each case, but the final decision will be made on the desire for profit and influence, rather than what is

perceived as the collective good. Only seeking truth from facts may be hopelessly unrealistic when economic expansion and contraction are involved. It is difficult to discern a clear starting point for such procedures and to separate the educational from the political, what comes first. Whether or not economic and political decisions will ever be subsumed by the purely educational is a moot point in the real, particularly globalised, world. The essential difference may be whether decision-making is recognised as being chaotic on whatever basis the participants see as being appropriate, doing whatever is necessary, or whether decision-making should trend towards being more ordered and planned in the public interest. Markets of course do operate within a framework of government regulation and procedure.

Vocational training is another matter and needs to be considered separately to general education. The notion of the skilled and advanced worker has a long and colourful history in public thought, not only in terms of increasing production, but in terms of the population interacting with the environment and learning from it, a key component of a civilised humanity. Manufacturing, building and construction industries, for example, are very much concerned with an understanding of materials from the natural world. Once the political and ideological decisions have been made, to develop an assembly line operation in a third world country, or to manufacture the next version of silicon chip, it is necessary to obtain a workforce capable of undertaking the mandated tasks. This may involve a certain level of literacy and numeracy, some understanding of sophisticated computer-based equipment, the significance of environmental concerns and matters of occupational health and safety. Training programmes have a direct connection with production issues of this type. From the point of view of the work force, it is also necessary to be immersed in the design, manufacturing and quality control processes and the political issues that form the backdrop to their working lives such as legislation on the disposal of waste, regulations that apply to wage negotiations, globalised cost structures and interest rates pertaining to commodities and production efficiencies. As above, the cycle of events here is difficult to break to identify a starting point and distinguish between education, training and production. Like employers, decisions made by employees on this range of questions, will primarily be political rather than educational in nature, resting on an overall perspective and world view. Subsequent training programmes will however be shown as having a direct relationship with the economy of the enterprise and of the country.

If societies in the modern era are still constituted on an economic base/superstructure model, where the economy is ideologically dominant, what are the realistic prospects for democratic education under either political system? A non-idealised view of democracy has been developed above, a view that sees democratic process not in terms of a bourgeois and mythical, self-indulgent free will, where thinking and action proceeds in a neutral, socio-political vacuum, but rather where practice and theory come together in a united praxis, precisely to interact with and change social conditions for the betterment of all. A real democracy is located within not without an economic framework, to improve the life of wage earners and certainly does not exist in a lifeworld insulated from the pernicious impact of the economy; the relations of production intertwine with and are shaped by the forces

of production. Political democracy and an educational democracy can be struggled for under any economic system, taking into account the political and cultural circumstances that exist. At the very least, a socially useful and working resolution of the tension between public and private, reason and desire, between religion and science and between self and society, can be achieved. This does assume a historic progression from barbarism, feudalism, through capitalism to a post-capitalism or socialism with each being of a higher order to that preceding. Different forms of education can apply to each and can form their own linearity of social progression.

Conservative Education

There is a substantial question as to why European or western education has developed the way that it has over the centuries. Based on the above discussion, the historical development of formal education and the underpinning philosophy of education need to be linked to the economy and the major ideas that have dominated accordingly. Bowles and Gintis (1976) in their early work have analysed this trend in some detail. A society that is founded on slavery, for example, would not be expected to have a democratic education system. A society where women and slaves are not recognised would not have inclusive schooling arrangements. A view that knowledge is pre-existent in the mind and that only some are capable of creative thought will lead to an educational elite. During the modern era where Enlightenment principles have been inspirational, the conflict between science and religion must also be taken into account. Again, it is hard to envisage education systems that promote a dogmatic science or religion as being essentially democratic. It does not necessarily follow that a religious society or church state should promote its religious views through its schools or other public institutions, but rather see the family as a more appropriate venue; the separation of church and state should be clear. Why religious views held sway in many countries for centuries, indeed still hold sway in many countries today, is difficult to discern. Although Auguste Comte (Martineau, 2000) thought otherwise, there does not appear to be any logical reason why humans need to pass through such a long historical period of this type, except of course, if the nature of the economic system and its resultant struggles for power and wealth, determine that this be so. If the historical process from barbarism to socialism is necessary and inevitable, then approaches to knowledge and learning will follow a similar path.

For some reason, the thought of Plato (Bowen and Hobson, 1986) is still very influential in western education, directly and indirectly. This may be because his views remain very accurate in relation to the nature of humanity or because their conservative essence connects strongly with a private and market economy. Plato discussed the idea of ‘pure forms’ of knowledge as distinct from our understanding of everyday appearances and phenomena, that intellectual knowledge is the highest pursuit of humanity and the view that only a few citizens will ever attain such knowledge and insight. This is a socially conservative position which if followed,

must produce an elitist system of education. The place and concept of mathematics today especially as it is treated in schools also stems from this view and period. The practice of rhetoric in Greek society was replaced with a quest for more ultimate truth, particularly one in accord with the physical world of changing seasons, the passage of the stars across the skies, cycles of birth, life and death in the animal and human experience in a timeless, universal way. These views were consolidated by amongst others Pythagoras (Riedweg, 2005) into a system of mathematics and symbols as the pure form of knowing, where humans go beyond mere appearance.

The dominant place that mathematics and to a lesser extent science has in modern educational thinking, can be seen as quite remarkable, depending on whether or not the views of Plato and Pythagoras are reasonable. Modern science has a much shorter history and its battle with the humanities for inclusion in the school curriculum has only been finalised quite recently, since World War II. On the other hand, mathematics or more particularly school mathematics seems to have a rigid grip on the collective educational mind and is handled very conservatively in schools. Even in the advanced economies, school mathematics is still historically recent and is not taken by most students continuously through to completion of the secondary level. It is still seen as a usually disconnected collection of symbolic rules that are abstracted from personal experience and of which, many students find it difficult to make sense. More integrated, practical and applied approaches to teaching and learning that find solace across all other curriculum areas are not seen to be entirely relevant for mathematics. Plato would presumably have an obvious explanation here arguing that mathematics is the purest form of understanding available to a few only and its principles and techniques are different to other areas of knowledge. School mathematics will be discussed in more detail later (see Chapter 13), but the implications for current schools include a policy matter as to whether mathematics should be a curriculum area for all students and if so, a practical matter as to how it should be treated. A counter view would involve all knowledge being seen as human constructs without a normalising truth being allocated to one area and therefore, the same principles and procedures applying across all arrangements. The latter view clearly does not hold in the OECD countries for example, so a working hypothesis that connects epistemology and a paradigm of economy comes into play. As with the question of democracy generally, prospects for breaking with the dominant economy and having a more integrated approach to mathematical learning for all students are of central concern to a more open and progressive view.

Progressive Education

The publication of Emile in 1762 by Jean-Jacques Rousseau (Bowen and Hobson, 1986) was strangely enough the first systematic challenge to Plato's thinking on education and knowledge for many centuries. Karl Marx (2008, p. 1) suggested that 'The tradition of all the dead generations weighs like a nightmare on the brain on the living', but exactly how this continues to be applied to Plato and classrooms around

the world is a little difficult to appreciate. In this work, Rousseau proposes that the focus of education should shift from the 'what' or content of knowledge to 'who' is taught, that is the child. This seems to be an obvious step to take, but is clearly still difficult to contemplate for the contemporary school let alone implement with integrity in many countries. Contrary to the notion of original sin, the child is intrinsically good and is able to develop personal understandings from within rather than have laws externally imposed. Education falls into the category of attempting to pattern the child to a given mould and therefore detracts from the growth of individual development. According to Rousseau, the child should be as free from 'outside interference' as possible so that by the years 12–15 there is a strong curiosity about the natural world. Between the ages of 15 and 20, the student is ready to embark upon a range of social and intellectual activities not unlike the modern curriculum. It is easy to see why Rousseau's views were very radical for the times and a serious challenge to the grip of religious dogma. They are certainly democratic in that they locate the impetus for learning with the child, every child regardless of background, rather than the church, adult or state and they attack prejudice by theorising that all children come to their own understanding of ideas through their own experience. Such a concept of an active, knowledgeable humanity and of a child-centred learning, has been drawn upon extensively by many thinkers over the ensuing 250 years.

Towards the end of the nineteenth century, the locomotive of modernity including industrial development and modern science were having a huge impact on social directions. Millions of people around the world were becoming more determined to do their own thinking and to throw off the yoke of oppression. The conditions of the industrial working class in Europe were intolerable as it stoked the furnace of economic progress. Karl Marx in sociology, Charles Darwin in the physical sciences and Sigmund Freud in the social sciences were redefining human consciousness and biography. It is within this context, that the North American and liberal pragmatic philosopher John Dewey began his investigation of progressive education, perhaps from where Rousseau had ended but under very different circumstances.

For Dewey, truth was linked to the consequences of action. For a pragmatic philosopher, the contradictions that this posed between what Dewey called 'progressive' and 'traditional' educational (Dewey, 1963) were enormous, not only due to a concept of philosophy itself as a generalised learning and therefore defining the enterprise of schooling in philosophical terms, but because of the passive role of the child in accepting knowledge already chosen as true by the teacher. Dewey's theory of inquiry learning overcame these problems, where the child was encouraged to learn from personal experience and to come to a personal explanation as much as possible independently of the adult. For the modern school, there arises a crisis of direction if its outcomes are more uncertain and 'work in progress' rather than a repetition of known truth and the serious implications that this view has for policy, organisation, methods of assessment and the grading and sorting of students. Dewey placed practice at the pinnacle of human experience rather than the intellect as posited by the Greeks, although his emphasis on an integrated knowledge and a unity of practice and theory for all phenomena was perhaps his greatest contribution

to education and is the greatest challenge to traditional education at all levels. His writing while dense and often difficult to comprehend on a first reading is striking in its capacity to unite and not separate the different aspects of experience.

How can we begin to explain the different trajectories that flow from and between Plato, Rousseau and Dewey? How is it possible for some views to dominate for centuries and find root and sustenance far distant from their home lands? If the connection between economy and intellect is close, then the development of trade and commerce helps explain to some extent the need for literacy, arithmetic, agriculture, engineering and the like and the ways of thinking that emerge from different modes of production. A serf working in the fields with all labour being appropriated by the landlord, will see the world a little differently to a train driver delivering trucks of coal to the wharf, or a graphic designer working with abstract ideas on a computer screen. In each case, the relationship between the worker and what accrues from the productive process is different and in some cases is exceedingly remote. In a globalised world of production and a greater emphasis on information, knowledge and intelligence, new features and connections are becoming apparent that must be taken into account by progressive educators, features that will make the break with conservative educational philosophies more profound and extensive and ultimately, more epistemologically democratic. While it seems clear that Dewey's inquiry has had a pervasive bearing on the policy and practice of many education systems worldwide to this day, such influence is difficult to maintain in practice. The Plowden (1967) review of primary education in the United Kingdom in 1967 is another example of debate and policy being heavily influenced by theorised ideas. Piaget's (Vuyk, 1981) views on child centredness, constructivism and action in learning underpinned the Plowden report quite markedly, but their application across the curriculum remains challenging 40 years later.

Education can learn much from the science of cosmology and the theorising that is taking place regarding the origins and structure of the universe. Scientific developments of this nature generate the same excitement that occurred 100 years ago with new understandings regarding the particle theory of matter, the discovery of the electron and ideas regarding relativity. Complexity theory is a case in point. It is now suggested that there is nothing miraculous about the universe – the universe 'is' – and that whatever happens in the universe is a function of its inherent properties. As the universe continues to expand, stars come and go, matter and light are transformed into each other, then the overall complexity of the universe increases and new features are created, features that were not present before. This is similar to the pieces of a jigsaw that at some point only seem to make an unrecognisable jumble, but at another while still incomplete, can make a coherent whole as the picture or pattern becomes discernable. Human organic life can be interpreted in this way, as a scientific function of universal complexity and one which emerges from matter as a critical mass of complexity is reached. Human consciousness and the generation of ideas can be conceptualised in an identical manner. Thought and more particularly new thought becomes a human characteristic as human material complexity passes a certain point, as the totality and combination of experience, practice and theorising causes new properties to emerge. Based on this analysis, life as we

know it is a logical outcome of the universe's composition as concentrated in this galaxy and could quite conceivably occur at many other places in the universe with a similar makeup.

The interrelationship between a progressive epistemology and complexity theory is remarkable and provides much practical guidance for schools. New understandings or new ideas may also depend on a threshold or critical mass of experience where, once established, new properties or thoughts, connections, assemblages, networks, or insights, are enabled for the organism. The role of the school then becomes one of ensuring that a diverse experience is allowed to accumulate over time so that the learner is allowed to participate in the construction of their own awareness. New ideas may explode in the brain in the same way as a black hole explodes from a 'point of singularity' or a 'point of concentrated experience' containing all of the constituent particles of a new creation. In one sense, this latter analogy could be considered a Platonic Form, although from a philosophical view, the idea is not pre-existing in the brain. Dewey's notion of learning through inquiry and the centrality of building ideas from experience fits nicely with the tenets of complexity that links humans more closely with the material universe and how it transforms itself in timeless, endless cycles of destruction and construction. Under the imperative of pragmatic philosophy, to be human is to learn and to learn is a function of the universe, it properties and arrangements. This is a progressive, epistemological view rather than a conservative, ontological view of learning and of humanity and opens the door for all children regardless of their socio-economic histories to participate with all knowledge and construct their own meanings.

Indigenous Education

The Indigenous project of modernity needs to establish the authority and credentials of an Indigenous philosophy and epistemology if the different cultures of the world are to develop in non-racist ways, share and reconcile with each other. It is certainly a necessity if Indigenous peoples wish to participate in non-Indigenous systems of schooling. There are significant decisions that need to be made by competing viewpoints in support of the general philosophies that underscore conservative and progressive education. The claim for an explicit and emphatic Indigenous epistemology is not an assimilationist proposal to accept European analysis and to assuage difference, but the opposite, the search for a set of precepts that seek to explicate human understanding to a greater extent within the context of a unified humanity.

Advice coming forward from Indigenous communities around the world regarding Indigenous education is crystal clear. In regard to fourth world communities, Indigenous people must be in control of their own culture, language and history, must be able to participate fully and democratically in developing and adapting a specific curriculum to meet the needs of local communities and must be able to approach knowledge from an integrated and holistic direction. These recommendations are unambiguous. The question arises of course as to why such advice is

not implemented in schools around the world, particularly secondary schools where there is such a high dropout rate of Indigenous children around age 15. A reasonable postulate is that the contradictions between the formal structures of school and the essential philosophy of community life are too great to bear after many years of schooling. Removing oneself from the European school is a method of survival.

Unlike primary schools, the secondary school continues to suffer from a crisis of identity and purpose in the wealthy countries like Australia. Primary schools around the world clearly see their role as caring for very young children and in overseeing their language development in the broadest sense. On the other hand, secondary schools in the stronger economies have been unable to clarify their role in regard to university entrance, preparation for employment and involvement with the academic disciplines. An uneasy hybrid exists between these three pressures, expressed very strongly in assessment procedures used at the completion of the secondary years. The nature of the secondary curriculum also varies with every new government and with the economic circumstances that prevail especially in relation to unemployment and skill development. There is a strong tendency for the secondary curriculum to take up a more vocational orientation under the conditions of economic recession and certainly economic depression, while to become more liberal when the economy is stronger. The curriculum can also be more child centred and school based, or knowledge centred and state based depending on government priorities. Guidelines issued by governments can suggest a framework for curriculum development that provides wide scope for the work of teachers, or lay down quite specific rules to be followed. All of these approaches are firmly linked to the economic conditions of the country.

How can fourth world Indigenous educational interests be furthered under such socio-economic realities? Is there a conservative or progressive model that is a best fit, or is a totally new model required for a globalised and marketised environment? Can different cultures be reconciled, or are the differences too great? As discussed previously, the following key points that dominate the globalised world, will need to be considered:

- Knowledge. Indigenous knowledge is very much related to the land, waters and animals that frequent where a community lives. This key relationship must therefore be central to any curriculum involving Indigenous children and their families. It is essential that Elders be equal partners in curriculum development offering their experience and wisdom regarding local culture, history and explanations of events. While the knowledge of Elders may be made known in traditional ways, the overall context of Indigenous children attending regular schools provides more progressive means of learning and does not preclude more conservative approaches. The ideas of learning by doing, indeed of imitating those with obvious expertise, of practising techniques are not antithetical with a community of open inquiry. As with all learning, there is a need to provide strategies for the child that enable links to be made between personal and more general experience and to experiment with evolving ideas. How knowledge actually grows and is understood is central to a mutual epistemology in schools.

- Perspective. All humans bring a world view or political perspective to their interaction with the social and physical environments. This is a complex mix of morality, creation stories, politics and culture. For Indigenous people, there is clearly the question of Indigeneity. To incorporate an Indigenous perspective across a European curriculum will be extremely difficult to achieve for any dominant society given that it must be identified, understood and agreed in the first place and then methods of application must be found for every subject area. A perspective is clearly different to a common strategy that has been employed in many systems to now, that of dealing with aspects of Indigenous life in one particular subject area, mainly that which deals with history and politics. This approach is designed to primarily transmit content knowledge such as that concerned with invasion and leaves the vast majority of the curriculum untouched. Developing and integrating an Indigenous perspective on subjects such as mathematics and science, for example, will prove to be an enormous task.
- Curriculum. There is a commonality of view amongst OECD and similar countries regarding curriculum design, a commonality that has become stronger over recent years. This is probably due to globalisation and the similar requirements for trade, commerce and information technologies. Indigenous views of European literature, mathematics and science will confound the accepted curriculum, although there will be greater overlap in other areas particularly in the arts. The great debate between the humanities and the sciences in European cultures has been completed centuries ago for Indigenous peoples in terms of holistic approaches, but remains to be resolved elsewhere. The notion of mathematics and truth as mentioned above is difficult enough for advantaged children of the settler society, let alone those who approach understanding from a completely different perspective. The basic principles of curriculum design and their directing philosophies need to be revisited for children of the fourth world, with mathematics and science receiving particular attention. These contradictions remain almost intractable within conservative schooling.
- Technology. Given the significance of technology and computer-based information and communication technologies in particular to the pursuit of globalisation, the incorporation of the wide range of technologies now available becomes a priority for Indigenous peoples. Provided of course that technology can be culturally inclusive. Access issues aside, the evidence worldwide suggests that technological devices ranging from radio, medical equipment, motors and machinery, aircraft, television, videos, DVD and iPod devices, mobile telephones, the Internet and computers generally, are all acceptable to and are utilised by Indigenous people, including young children. This mirrors the experience of the population at large. The explanation for this in both cultures includes the apparent personal authority and autonomy that can be brought to bear, intellectual flexibility, the power of communication and information gathering provided and the data techniques that are placed into the hands of all citizens without obvious discrimination. The mass take up of technology and telecommunication systems by ordinary people across the world has been one of the characteristics of current modernity and one that cannot be ignored for educational reconciliation.

- Democracy. A society that professes the value of democracy, must also maintain a democratic education system. Creating an epistemological democracy within a curriculum can be markedly restricted by the economic and political requirements that are imposed and as noted above, these will vary as the characteristics of society change. The extent to which a curriculum can be truly democratic is therefore problematic, but the political will to always trend in that direction should be expected. A huge contradiction continues to exist at the senior secondary level, where examination for tertiary entrance distorts and dominates the other years. Prospects for schools becoming more independent of the tertiary sector appear slim, particularly as the demand for higher education increases. A democratic education system will need to adapt as need be to take account of the Indigenous perspective on decision-making, but the same general democratic approaches should apply to all. Discussions at school will need to be more informal, more long term, more respectful and genuinely community based than that usually familiar to European participants. In broad terms, however, educational structures already exist in Australia on which such directions can be built.
- Ideology-critique. This is the most difficult question for an education system under capitalism or socialism to confront. Can any social institution including a school, become socially critical, to be honestly critical of itself and the defining ideas and practices that constitute its very reason for being. A democratic and reflective institution will attempt to do so without immersing its members in ideological conflict directly, although the vigorous clash of ideas and cultures is hard to avoid. A school can proceed by having an open mind towards truth and encourage a variety of means of investigating propositions without imposing an ideological frame. There are questions of commonness here, as to what a society considers essential and what can be left to the discretion of learners and practitioners like teachers. This is a difficult matter for any public administration to balance some questions of deeply held value with the democratic requirement of personal expression and independent thought, especially for the young. A balance can be maintained by holding some knowledges to be generally true at the time, perhaps even over a considerable time span, but a concomitant recognition that these can be shown as being untrue or at least thrown into doubt as new evidence and interpretation comes to the fore. Indigenous epistemologies and perspectives should be congruent with a democratic pragmatic of this type.

As the feudalism–capitalism–socialism journey unfolds together with attempts at reconciling cultures within the constrictions of first and second world economic characteristics, the issue becomes one of devising a structure that enables cognitive travellers to continuously grow and experience as independent thinkers, in charge of their own destiny. Specifically, we now turn to a progressive model of education that is more than a realistic and global hybrid, but one that begins to describe and constitute an educational genome project in its own right.

Being and Identity

For all humans, the question of who we are, where we have come from and where we are going is both confronting and eternal. As Martin (2005, p. 28) observes, 'To know who you are in relatedness is the ultimate premise of Aboriginal worldview because this is the formation of identity.' For some there is a religious answer where beliefs and values have been established perhaps via a divine being to explain the nature of the universe and humanity. For others, the emergence of modern science has contributed to a reliance on matter and energy for explanation with their interaction being responsible for human characteristics such as morality and compassion. Whether or not religion in its formal sense is an aspect of Indigenous life can be debated. In Australia, for example, the European word, Dreaming or Dreamtime, denotes a coming together of personal and community Indigenous identity and strong connections with the land and present day conditions. It is said that many ancestral figures inhabit the earth, skies and seas and are associated with local animals and landscape features. The Dreaming is timeless, forever present. It is not a religious view as it does not involve the worship of gods or the following of a strict recorded code of doctrine and behaviour.

Many cultures express deep connections with the land. It is significant that the concept of 'wilderness' is non-Indigenous associated with the idea of 'taming' the country and changing it to suit economic need. Indigenous people are said to be never lost in their own country. The cutting down of trees and the formation of fields and paddocks for crops and animals was intended to subdue nature for human pursuits. Indeed the advent of climate change and global warming over recent times has become one of the great debates of the modern world, where images of melting glaciers and dry river beds generate much anxiety in the human psyche. This has re-established a strong desire for many people to care for the natural environment and to ensure that there is a respectful relationship with animals and landscape. The issue that arises here is whether connection with the land is an ontological feature for all humans, that is to be human is to have a philosophical and emotional attachment to our natural surroundings, or whether Indigenous peoples have a special and unique relationship with country? This is a difficult question as Indigenous and non-Indigenous peoples can only have an appreciation of the other's innermost feelings and understandings, as distinct from an identical perception and connection. A history of knowing the environment over many thousands of years must lead to an intimate understanding of its structures and characteristics, but this does not necessarily mean that non-Indigenous peoples do not have their own value and relationship with the landscape as well. It is quite possible for all local residents to observe the ducks flying in to shelter before a storm, or to eat particular berries for their medicinal properties, or to know the location of various waterholes in times of drought. Even non-Indigenous town or city dwellers might know that there is little point to go fishing at particular times of the year, or when the east wind is blowing. What must be considered for educators then is how key features of social life such as language, history, country and culture combine for both Indigenous and non-Indigenous peoples to generate knowledge, meaning and identity and how these can be incorporated into

a regular curriculum at school. What is at stake here is what it means to be human for all people and how schools can incorporate such fundamental ideas.

Given the difficulty of different cultures really understanding each other, it may be appropriate in the first instance for each culture to have a better, stronger and dynamic understanding of itself. This is practical advice that can be suggested to educators. That is, through the experience of Indigenous issues and the grappling with practical problems that occur in schools, non-Indigenous educators can reflect upon their own standpoints and open up the possibility of changing their own knowledge, practices and beliefs, indeed identities. For example, a classroom that is teacher dominated could be altered so that there is much greater opportunity for personal discussion amongst students and between students and teacher. This could result in the teacher coming to a more comprehensive understanding of the role of language in communication and learning and how this is significant for all children, including Indigenous children. Here, the teacher has not set out to implement approaches that are assumed to be appropriate for Indigenous children, but has begun a personal investigation of pedagogical issues. This has raised fundamental questions about the role of language and whether or not it is more important to experiment with it or be instructed about its components. In strengthening one particular cultural view of teaching and learning, the teacher becomes more understanding of a different cultural view of teaching and learning. This approach is not anticipated to 'Indigenise' the curriculum by replacing white knowledge with black knowledge, to replace one dominant view with another dominant view, but to respect all cultural views around practical projects as a way of developing new understandings for mutual benefit. This is the epistemological and democratic argument that needs to be raised when questions of 'mainstreaming' all Indigenous schooling are advanced.

For Indigenous peoples, identity is very much concerned with 'where I am from and who my family are'. Country, community and language are key aspects of identity and therefore need to be incorporated into schooling. If a cultural context for schooling is not established then learning becomes meaningless or distorted and Indigenous children will become alienated from mainstream classrooms very quickly. A similar argument can be made for non-Indigenous children. Most Australian children, for example, will come across a very well-known poem by Dorothea Mackellar that includes the lines:

> I love a sunburnt country,
> A land of sweeping plains,
> Of ragged mountain ranges,
> Of droughts and flooding rains.
> I love her far horizons,
> I love her jewel-sea,
> Her beauty and her terror -
> The wide brown land for me.

These lines from a non-Indigenous person of Scottish descent express a deep, emotional connection with country that many non-Indigenous Australians relate to very strongly, whether they have extensive experience of the bush and outback areas

or not. It is impossible to ignore the wide open spaces, the bright blue sky, the red sand of desert or the golden sand of beaches. This is an intense cultural context that frames all learning and Australian identity. There is a scientific argument that since the beginning of time and through the processes of evolution, the human race has originated from the earth, has spread across the earth and returns to the earth. With this awareness, there is one human species that draws its identity, knowledge and understanding from the earth and subsequently is enabled to consider its place in the universe. If such fundamental contemplations do not permeate the school curriculum, then the learning of Indigenous and non-Indigenous children alike will be irreparably damaged.

Concept of the Democratic Polytechnic

At this stage, it is appropriate to consider briefly how the above considerations of culture and identity can be incorporated into the regular curriculum to benefit all children. This is one example to indicate that a number are realistic and possible. A progressive model of schooling that attempts to integrate the requirements for democratic and culturally inclusive learning, can be called 'general polytechnic' where 'polytechnic' is taken to mean a school based on 'many arts of learning' and 'general' indicates a broad education initiating students into various forms and fields of knowledge. A progressive rather than conservative philosophy is supported because this better accommodates the necessary features of democratic schooling supportive of Indigenous education and the backgrounds of all children. The polytechnic will promote a love of learning, democratic process, social critique and the development of broadly experienced and culturally dynamic people, an active citizenship for change and innovation.

A central feature of polytechnical education will be the varying degrees of redefinition of particular areas of knowledge as they are currently understood and pursued in many mainstream schools. The redefinition of knowledge goes beyond the mere reorganisation and repackaging of facts to a more fundamental epistemology. Learners will develop new relationships with concepts and ideas; they will come to know more, internalise more and discover more. As will be detailed later, school mathematics will be a prime candidate for such reconceptualisation, particularly to encourage teachers and students to learn together and to build a base of mutual experience from which intellectual and reflective forays into the mathematical unknown can be made. An inquiry and democratic emphasis on learning is intended to promote flexibility and rigour, where learning teams question, investigate and seek truth on all issues. This is the basis of a concern for social justice, our cultural and environmental heritage, concerns that cannot be artificially created or imposed. A school operating along these lines will have no place for mechanisms which sort, grade and compare individuals artificially. Student assessment and the monitoring of learning will be an important part of the curriculum being informal, continuing, integrated and cooperative designed to signpost progress over time.

One model of a democratic polytechnic curriculum could contain the following key elements:

- Four broad areas of integrated studies encompassing the humanities, sciences, arts and technologies. A fifth area will allow for more specific studies such as sport, instrumental music and a range of electives. Philosophy and the study of ideas could be a fifth broad area, or be integrated into all other areas. Mathematics, for example, integrated into the sciences could be structured as a philosophical inquiry into quantities, patterns and relationships that occur throughout the physical and intellectual zones. Each integrated study occupies on average 1 day per week.
- An approach to teaching and learning that involves continuing cycles of investigation where practice and theorising are integrated in all studies and where personal theorising and critique build a platform for ongoing learning.
- A critical, information and communication technology perspective where the most educationally developed technologies will be appropriated and incorporated into students' learning.
- An Indigenous perspective across the curriculum that respects and recognises the land, culture, history and philosophy of Indigenous peoples and informs the development of all learning.
- Community learning circles and the development of negotiated and integrated student projects and portfolios as the main organisational structure.
- Explicit and negotiated statements of modes of monitoring, assessment, student learning outcomes, teaching methodologies and curriculum forms.
- Democratic forms of decision-making including community, staff and students.

The overall concept of the General Polytechnic School so outlined attempts to take the broad theories of Dewey in regard to inquiry learning and the practice/theory unity and integrates them with the new information and communication technologies. The original idea of polytechnical education as understood in the European context, was intended to break away from conservative elitist approaches, bring intellectual and physical labour together and to link schooling with production. This confirms Dewey's view that education 'is a process of living and not a preparation for future living' (McDermott, 1981, p. 445) and encourages learners to actively construct their own understandings based on personal culture but tempered by broader experience. The democratic polytechnic falls into the category of progressive rather than conservative education and is well placed to support the culturally inclusive curriculum required for Indigenous reconciliation and learning. A holistic rather than segmented view of life and knowledge where everything is connected to everything else is in total accord with Indigenous views. As a modern project, the General Polytechnic School challenges entrenched ideologies of privilege and advantage both educationally and socially and is therefore oriented to serving the interests of the overwhelming majority of families and their children.

Chapter 5
Indigenous Education

Educators who have the professional capacity to recognise the diversity of their students, who respect the knowledge and beliefs each individual brings to the learning situation and who use such knowledge to develop a better understanding of how individual students learn most effectively, are those who will achieve success in teaching Indigenous students (Jeannie Herbert, 2002, p. 41).

In his work with Brazilian peasants, Paulo Freire (McLaren and Leonard, 1993) saw reading and literacy not so much as a set of instructions regarding discrete skills, but as a constructive process of meaning and social critique. He established culture circles that would identify significant issues in the lives of the people and which would then discuss major ideas, concepts and action arising. These could be recorded in sketches as the initial basis for reflection and analysis, very similar to the technique of case writing now adopted in a number of academic disciplines including education (Cherednichenko et al., 1998). Critical literacy and active knowing of this type locates all learning within a socio-cultural context, dignifies the experience of daily life and encourages a broad range of expression for an explicit social purpose.

Freire's emphasis on critical consciousness and pedagogy has strong implications for Indigenous peoples around the world as they and their children come to grips with the struggle for survival and meaning within settler societies. A background of oral communication and the centrality of cultural forms and ceremony for the transmission of knowledge, law, history and tradition rather than the use of writing immediately sets up a contradiction between Indigenous and non-Indigenous learning. Organisational arrangements in European schools and universities involving all students could easily be structured around culture circles, for example, where knowledge is built from local circumstances, except for the rigidities of the dominant white culture that valued knowledge needs to be passed on from the top down formally from expert to novice.

Indigenous philosophy also suggests that the world is holistic in nature, that all parts living and non-living are connected and that humans are a part of the landscape along with other inhabitants such as rivers, trees and animals. There is a close correlation here between Indigenous and non-Indigenous theories where modern science proposes a relationship between matter and energy with species changing in

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complex systems over long periods of time (Davies, 2004). In this respect, Mother Earth constitutes a major and perhaps linking concept in the theories of Evolution and the Dreaming. Postulating the idea of both connecting with and learning from the land and environment brings peoples from different cultures together and provides a generalised framework for the human quest of knowing and learning. Semchison (2001) is supportive of this view when he comments that:

> The circle of life encompasses the physical, mental, spiritual and emotional. True knowledge is only acquired by the use of all these four elements and this is the Indigenous approach to knowledge. Touch it, taste it, smell it, see it, hear it, love it, then live it.

After discussing the issue of Indigenous knowledge in a Bachelor of Education class, a non-Indigenous student teacher wrote:

> This is the system that could be used for all schools. This shows students how without telling them what to do. Their own explorations would give them the answers that would fulfil any curriculum. Who says that students cannot study algebra in primary schools? If students' wanderings take them there it should be supported. Indigenous people with their deep associations with the land used this theory because everything that they needed to know was in their natural environment. The circle of life shows you the way and this way is an infinite way of learning. Our job as teachers is to find environments that give students the inspirations to go down paths that fulfil the outcomes demanded of us.

Whether or not this view is idealised from a student teacher, it is certainly the case that the conceptualisation of a broad unity around the issue of integrated knowledge and action-based learning is a point of acrimonious debate worldwide. That is, the conservative approach of predetermined knowledge and teacher-directed learning usually dictates. Admittedly this debate on knowledge is undertaken primarily amongst politicians, educators and academics from the advanced economies, but it does impinge on how Indigenous learning is approached within formal structures. The debate is also globalised in the sense that the principles of modern enlightenment suggest that a future of moral rationality, reason and justice for all people looms on the horizon, while a postmodern view contends that such a historical process has already ended and that an instrumental reason dominates. For Indigenous peoples immersed in centuries of action against racism, discrimination and disadvantage, the argument may seem abstract and unimportant, but it has had a major influence on social policy and organisation in countries of European descent. It is paradoxical, however, that the conflict between modernism and postmodernism has seriously overlooked the Indigenous question. Issues of equality, self-determination and justice make this very much a project of modernity.

Restructuring Secondary Education

In Australia, the education of Indigenous peoples within schools and universities has not been successful (Purdie, 2000). It is significant that primary school education around the world with its focus on language development in its broadest sense, active learning and the care of young children engages Indigenous children to a

much greater extent than what occurs at the secondary level. In the latter case, predetermined knowledge is broken into separate parts generally without linkages and the approach to learning is often passive relying on direct instruction. This is particularly so in the senior years with considerable pressure being exerted by universities regarding subject content and selection procedures. Under these circumstances, it is quite understandable that there is a high dropout rate of Indigenous students around the age of 15 or 16 when the contradictions between the socio-cultural ways of knowing become very acute. An obvious first step at rectification or when a secondary system of education is being developed is to restructure secondary schools along primary school lines, with knowledge being investigated in holistic and integrated domains.

It cannot be claimed that little theoretical and practical work has been implemented to guide such restructuring. The issue of multiple intelligences (Gardner, 1993), for example, can pick up on Indigenous questions, where it is recognised that the learner has many points of engagement with experience and that a school curriculum can be arranged to ensure that this occurs. The concept of systematic inquiry (Dewey, 1966) as understood and worked with by Australian teachers goes past the notion of multiple intelligences, however, and attempts to link students' totality of culture and cognition with the task at hand. The central feature of such an approach is often that of challenging and collaborative projects which flow across traditional knowledge boundaries and look for creative open-ended solutions to problems or areas of student interest. Systematic inquiry brings practice and theory together through the bridging process of reflection and proceeds through cycles of experiment and analysis. The Indigenous approach of holistic social and intellectual dialogue around serious issues of importance to the community, is exactly that.

In addition to the above, the Australian theory of two-way schooling (Harris, 1990; see Chapter 10 in this volume) has also provided direction for Indigenous education. This technique can be interpreted in various ways, but generally involves complete respect for the different backgrounds and ways of knowing of different groups and an appreciation of the different learning styles that each group may have. For example, a particular cultural grouping may proceed with a strong emphasis on learning through practice and communication that is essentially community based, oral and informal. On the other hand, a second cultural group may place importance on knowledge that is encoded in a range of texts and challenges between members that are more formal and institutionalised. Criticism of this approach includes an inevitably of the stronger domain subsuming the weaker and the need for domain separation to ensure that each culture can develop unimpeded.

The concept of two-way schooling in Australia has been extended recently to include that of 'two-way inquiry learning' (Hooley, 2002). This is an attempt to ensure that assimilation or colonisation of knowledge does not occur, but that the respectful relationship between paradigms supports cultural evolution and generates new knowledge through a process of Deweyan inquiry. For Indigenous peoples, the majority of whom in Australia live in the cities and towns along the east coast rather than remote areas and who do not fully practise traditional life styles, two-way inquiry learning offers a systematic means of dealing with the similarities

and differences that co-exist within white European society. At the same time, it attempts to forge new principles of community as both the local and global circumstances alter. It may be thought, however, that being respectful of different cultures and histories may result in the production of separated, perhaps ghettoised multi-cultures with their own localised truths and rationalities, rather than a more interconnected and fluid network of cultural principles, mutually supportive of the public interest and the society as a whole. This is not necessarily the case and is certainly unlikely if recognition and respect is genuine and occurs within a broader set of inclusive social principles. Separate development usually gains support when attempts at acknowledgement and acceptance are frustrated and denied.

For educationalists working with Indigenous and non-Indigenous students, the above discussion brings together the important questions of structure and culture. With many Indigenous students being unsuccessful in formal schooling from the non-Indigenous point of view, what practical steps can be taken to restructure schools so that the cultural basis of learning is recognised and made explicit in everyday terms? What does the timetable of a two-way inquiry curriculum look like, for example? How does inquiry work itself out across all subject areas? What notice if taken of Indigenous science, mathematics, philosophy and literature as holistic and integrated concepts? Can a structure of European technological literacy provide at least cognitive footholds for a literacy that is essentially oral? Primary schools appear extremely well placed to deal with these questions and to establish high-quality practices of culture circles, integrated learning and links with community, issues that will bring the ideas of Freire, Gardner, Dewey and others in the grand tradition of systematic and reflective enquiry to life in Australian and other settings. Prospects for Indigenous students in secondary schools should be equally bright if the civic and epistemological courage required for each change is evident.

Discursive Environments

The notion of a discursive environment for teaching and learning invokes an atmosphere of respect, recognition and reciprocity where participants communicate, question and engage with each other around significant issues (Kruger et al., 2001). This dialogue will take place within and be mediated by the political climate experienced by schools. For teachers, curriculum planning will be a major aspect of discussion and provide an opportunity for reflection on practical classroom work, as well as prospects for more systematic change, that is the bringing together of practices and the essential ideas contained therein. The discursive conditions which encourage such a collegial approach to the organisation of teaching, also apply to the learning for children. Given that, it is now appropriate to consider how this approach might impact upon the actual arrangements for teaching in schools. The specific programmatic features of a discursive environment for teaching and learning will vary depending on the specific purpose of each school. One scenario arising from this approach involves the development of a discursive environment for both primary and secondary schools where Indigenous children are enrolled. Under these

circumstances, the discursive environment is conceptualised as consisting of three broad features, those of discourses, structure and culture. Each feature is described in general terms below with comment from teachers at a small primarily Indigenous school having application across schools with a smaller or larger Indigenous population. The teacher comment attempts to background each of the three features by providing some evidence of classroom experience that can then be referenced in the literature and analysed for linkage with Indigenous education.

Discourses

Discourses are taken to be the totality of public communicative means by which colleagues engage with specific questions regarding their working lives. According to Foucault (1972, p. 38), a 'discursive formation' exists when 'between a number of statements, such a system of dispersion whenever between objects, types of statements, concepts or thematic choices, one can define a regularity (an order, correlations, positions and functionings, transformations)'. Such discourses and communication encountered in schools and classrooms are characteristically diverse including the professional learning of teachers, consideration of how school programmes are connected with broader social trends and the underlying teacher thinking that guides proposals for change. Initially, the nature of discourses may be location dependent, but as programmes unfold, the interdependent characteristics noted below can emerge as participants investigate issues from a broader experiential base:

- Professional discourses, development and enquiry

  Teacher comment: *It now appears that all students are actively involved in the First Steps literacy program, even those with low skill levels. There does not appear to be students opting out or time wasting as happened earlier. I wonder if this change has come from the introduction of the program itself, the change of seating within the classroom, or something that we have failed to give credit for, that is our own continued and positive relationships and improved understanding of the learning needs of those students.*

Comment such as this moves from focusing on a small and tangible change to a more expanded theoretical view of relationship and learning. It suggests that the change itself is important in its own right, but a deeper significance may be the opening up of other questions (and discourses) for ongoing investigation. The communication is also positive and supportive laying the groundwork for professional and equitable dialogue.

- Linking school and social discourses

  Teacher diary comment: *With an open invitation and only six students left in the class, Justin began to tell how this program showed rock paintings and places*

where Macassans (Indonesian people) had visited the Kooris (local Indigenous people). Justin rested his elbows on his knees and went on to explain that the min mins were important spirits to the local people and that they came from 'up there' (meaning Arnhem Land in northern Australia). His facial expressions clearly demonstrated he was talking about serious and important facts that related to his community. True to his Koori culture, the story he told threaded around an event when a war happened and the min mins had come to help his community.

This comment shows that disconnecting the classroom from culture, history and community is impossible when working with Koori students, although it can be denied in white schools. A discussion initiated by the teacher in some way, will link with important community stories and events and often conflict with non-Indigenous versions, such as responsibility for stewardship of the land and explanations for events that have occurred throughout time. Spiritual connections are often present, aspects that may not be obvious in non-Indigenous classrooms.

- Practical theorising

  Teacher diary entry: *Third term saw an improved level of student responsibility for their own learning, the seating plan addressed some poor student dynamics and I believe the students work more confidently in an environment where the rules are consistently applied, explicit and commonly understood. Staff communication has increased, there is a heightened level of expectation from one another, but the teaching has improved and subsequently so too the student outcomes. Isn't that what we're on about?*

This extract outlines or touches upon a number of theoretical propositions very briefly, but shows how the teacher is using observational evidence and is placing classroom observations in a more general frame, concepts such as student responsibility, student dynamics, understood procedures and the link between teaching and outcomes. A superficial 'what works' approach is not evidenced, but rather a continuing and probably speedy connection between classroom experience and explanation.

Structure

Schools embody a complex mix of structural girders and reinforcements around which teaching and learning proceeds. These girders are formal and informal, are related to curriculum, policy and decision-making and which by their very constitution give an insight into the educational and social role of the school. According to Giddens (1984), the idea of structure concerns both social practices and moral action with 'structuring properties' binding space and time in social systems. Structural concerns figure large in schooling for Indigenous children involving the way years levels and particular classrooms are arranged, the relationships between staff,

between staff and community and between staff and students and the processes by which issues are worked through to resolution. How particular structures connect with and change general school issues and whether there is a linear (cause and effect) or cyclical (integrated) relationship is a major question.

- Learning circles

  Teacher diary extract. *I now value students as complete people, I consider students beyond the class time allocated. I know almost all of the students in the school, they know me, we will spend time together sooner or later. The same cannot be said of other schools. Our school is not divided into complete units or year levels, we operate more on a team basis; teachers do have a classroom responsibility, but it is likely I will need to develop a relationship with each student because I will be in that class or allocated to an excursion/activity that will require I engage those students in a personal and meaningful way.*

In this case, description is provided of a small Indigenous school where the structural organisational frame has not been decided, or is a state of almost constant review in an effort to do better. The timetable may show a more traditional arrangement of subjects, teachers and hours, but there is recognition that people interact and need to interact in a Koori school in a different way permitted by the forms of organisation adopted by the regular curriculum. In a school of this small size and with whatever structural arrangements emerge, it is clear that teachers see themselves working with students as a collaborative group to meet learning outcomes of mutual benefit.

- Mentoring

  Teacher comment: *The first days were difficult. I had a junior class of loving kids and I loved them back. But there were no results, planning or direction left for me by the previous teacher. I had no idea what levels they were, what they had done, nor who was who. So at the beginning of term four, we started the school year again. Having come to terms with that, the second hurdle was remodifying my teaching methods as my previous bag of tricks didn't work here. The trust situation was evident from the start. If mutual trust is established then you are nine tenths there. So we learnt to trust each other, which isn't really difficult for the youngsters, but took much longer with the secondary kids.*

Working with Indigenous children demands a very personal and trusting teaching and learning environment, one that brings people together rather than merely transmits disconnected knowledge. Issues of love, trust and a genuine recasting of teaching techniques on a daily basis means that traditional structures of schooling need to be at least questioned for their appropriateness and the cultural interconnectedness of learning understood.

- Conversation to production

  Teacher diary extract: *The reform movement that our middle years have undergone will be trialed throughout the state, each teaching team will now need to focus on a particular topic they would like to investigate and develop. Mike and I have chosen creative thinking, metacognition and developing critical thinking skills in the kids as a priority. These areas are very broad and we intend to visit sites where examples of this topic are refined. The readings and texts which relate to this topic are somewhat dry and have a familiar ring of sameness about them. Also interestingly, the quoted examples are generally steeped in primary level teaching practices and schools. Perhaps it's time things changed!*

As well as students engaging in communication and conversation the extract shows evidence of the teachers constantly looking for better practices as they work with students and experience the fruits of their labours. There is a backward and forward process being undertaken, where the practices of the school within its structural framework enable students and teachers to interact with each other and where changes are made accordingly. The production of understanding for both forms a tentative accommodation of view for the next cycle of activities.

Culture

Indigenous education is a cultural experience of itself and problems with teaching and learning in European schools are inevitable if a respectful culturally inclusive curriculum is not present for all children. Eagleton's (2000, p. 131) view that 'Culture is not only what we live by. It is also in great measure, what we live for' builds on the view of Williams (cited in Eagleton, 2000, p. 119) that 'Culture is a network of shared meanings and activities never self-conscious as a whole, but growing towards the "advance of consciousness"'. Advice such as this provides a guide when working with Indigenous students, rather than the view that culture is passive, entirely known and should be conveyed through particular school subjects. The expression of culture should more accurately involve a strong interrelationship between school and community, the way that knowing and doing inform each other and the means by which respect can be shown for the different cultural spheres within which teachers, students and their families find themselves. Culture is an oft-used but contested term, but it needs to be carefully defined when schools have an Indigenous population of whatever size and need a clear and sensitive distinction to be made between multiculturalism and Indigenous culture.

- Community partnerships

  Teacher journal entry: *I started at the school with a view to working in a field that is extremely difficult for a non-Indigenous teacher to access. I knew I possessed skills and had experience that was badly needed at a new school that catered for*

both primary and secondary levels. I had only a limited experience working with Indigenous students that was restricted to a mainstream setting. I did have personal relationships with parents that turned out to be significant and extremely important.

The issue of relationship between teacher and student and between Indigenous and non-Indigenous people is a dominant theme of this entry, expressed in various ways. An attempt at formalising this personal relationship as a partnership between the school and community across all aspects of school life including policy, curriculum and decision-making demonstrates the respect of cultural groups for each other and provides a systematic structure within which the work of the school can live and grow.

- Knowing and doing

  Teacher diary extract: *Throughout the school there appears to be a number of themes that are common, that is that at first there is a sense of frustration felt by all teachers at the initial stage of the program. This frustration stems firstly from varying sources including an acknowledged lack of confidence by many students in their own abilities to learn and secondly a perceived problem with the general dynamics of the classroom. Whether this negative classroom behaviour resulted from a lack of co-operation with staff or other students, or was in fact a negative attitude to an individual style of learning, which this program to some extent requires if it is to succeed, now appears to be making way for greater co-operation.*

In this extract, the educational discourse being promoted is exhibited by the support and analysis provided about the school particularly in the progress that is being tracked by colleagues and the changes that are occurring. Again, as noted above, there is this constant reworking of ideas as they are born from practice, modified and pressed into service. Knowing is a function of doing and doing a function of knowing, even if this is not explicit in the daily operation of schools. For Indigenous students such explicitness seems to be essential.

- Two-way inquiry

  Teacher diary extract: *Billy continued on to describe how the min mins got here and made constant links with the book we had been reading, the television program and the stories he knew. I asked questions, the remaining members of the class quietly listened and I felt that the atmosphere of the class was something quite special. Billy demonstrated to me how he had made not just connections, but given meaning and depth to what was being talked about, seen and experiences that were important. Events that happened generations ago still have relevance for him. I thanked him for sharing this knowledge with us and continued on with the classroom task in a calm manner. The group decided to design their own Macassan village from the information we were given from the novel.*

In continuing the entry encountered earlier, the teacher provides a deep insight into the interaction between a group of people as they come to grips with cultural connections and explanations of the world they inhabit. Each is communicating with the other in a respectful manner as they lay open their histories and heritage for scrutiny and hopefully understanding by the other. There are strong elements of democratic contact here and a recognition that there are different eyes viewing different worlds. It also seems that there is little evidence of domination, it is enough to discuss, inform and encourage the making up of minds and viewpoints in an independent manner.

Structures of teaching and learning need to ensure that domination, assimilation or colonisation of knowledges of one culture by another does not occur. Two-way learning as envisaged here and is indicated above is an attempt to set up a respectful relationship between paradigms of living and world view supportive of cultural evolution and the generation of new knowledge and challenge through a process of democratic enquiry. For Indigenous peoples, multi-age-learning circles in primary and secondary schools with the assistance of mentors and Elders embracing holistic, integrated and democratic domains of knowledge, provides a systematic means of dealing with the contradictions they experience with European society and for the restructuring of schools for all children.

From School to Beyond

The teacher comment above illustrates a professional situation of attempting to find authentic ways of proceeding with Indigenous education, of constantly reflecting on practice and the refining of classroom work. Harrison (2008) has compiled a practical collection of advice and strategies for Australian educators working with Indigenous students in different settings. This is an ongoing process and like most schools, will probably never be concluded. It is an approach of 'curriculum-in-practice' meaning that the genuine participation of students in their own learning is held uppermost and their cultural backgrounds fully respected. The development of mature relationships between all players, students, teachers, community, so that quality learning is maximised appears to be of central concern. This has not been an easy task for any Australian school and is similar worldwide when dealing with systemic imperatives, community expectations and the desire of Indigenous people to benefit from schooling while maintaining the integrity of their culture and history. Teachers, students and communities grapple with these issues in their own localised contexts and in various ways, particularly around the discourses and structural and cultural questions of curriculum design and implementation. The extracts noted attempt to show some aspects of teacher thinking and the difficult and multifarious issues that constitute this process and begin to unravel some of their underscoring characteristics.

In considering the general questions of Indigenous education, the suggested features of a discursive environment noted above are just that, some suggested ideas

based on an analysis of the data available to date. Much more investigation is required to clarify the issues involved and how they resonate with the practical life of classrooms across Australia and elsewhere. In addition, learnings from the literature need to be incorporated to temper local interpretations with a broader experience. At this stage therefore some summary remarks are offered to glimpse beyond and to challenge current interpretations and understandings of schooling.

Learning Circle

In many Indigenous nations around the world, the concept of circle is most significant and demonstrates an understanding that all creatures and component parts of nature are bound by kinship relationships. All of these are respected and honoured in various ways and are celebrated in song, dance, painting and ceremony. Some circles show equality, wholeness, the circularity of time, the relationship between the seasons and between north, south, east, west, while others are seen as a process of healing, perhaps because of European occupation. The discussion above takes up this broad philosophical concept of circle, perhaps 'circle of life' and accordingly, suggests a number of principles for the restructuring and reculturing of all schools mainstream or otherwise to meet the needs of Indigenous students. These principles are those of discursive environment, discourse, structure and culture involving democratic multi-age-learning circles instead of year levels, the participation of respected others as mentors rather than teachers and community partnerships for curriculum and decision-making. For many schools, such discursive rearrangements will require a strong and enduring commitment to civic and epistemological reformulation.

Mentoring

Reconstructing the notion of teacher to that of mentor is appropriate for the democratic and inclusive operation of learning circles. It is much more culturally inclusive and respectful for the relationship between the Indigenous child and adult in a school setting to be that of learner and mentor rather than novice and expert. In the former case, the conditions are being established for challenging and collaborative projects that look for creative and open-ended ways of thinking about serious issues and which do not rely on the hidden knowledge of a powerful, all-knowing teacher. Mentoring will also enable the introduction of a broader range of assessment techniques that respect and recognise the knowledge of Indigenous peoples and allow a full expression of such values and life directions.

Perspective

Parents, teachers and students construct their own explanations of life every day and act upon them as they see appropriate. Students are doing this in classrooms

often in spite of a teacher's best efforts to direct and control. Teachers are constantly searching for and implementing new approaches that they consider will meet the needs of their children, a process of practical theorising. Educational discourses at the school level are often not seen as embracing a theoretical component, but to see teaching and learning as not a unity of practice and understanding to guide further practice, underestimate how humans constantly interact with and transform their environments. Indigenous peoples have their own explanations, stories, lores, traditions that constitute a way of knowing about the world and which must be brought into the curriculum. This means working with such a philosophy for curriculum and teaching reform so that an Indigenous perspective permeates across the curriculum, rather than teaching about Indigenous issues while the rest of the curriculum remains unaltered. A recognition of the existence and essential makeup of the practical theorising of all people and children is a major first step that will lay the foundation for structural democratic change of the school curriculum.

Curriculum

A curriculum design that segments knowledge into separate categories to be considered by different age groups builds in structural rigidities that make it more difficult for children to approach knowledge and learning. The concept of multi-age-learning circles of whatever year level may help overcome such restrictions. Indigenous philosophy suggests that the world is holistic in nature, that all parts living and non-living are connected and that humans are a part of the landscape along with the rivers, trees and animals. A learning circle must therefore adopt a holistic approach to learning generally and an integrated approach to school knowledge in particular. Student-initiated and negotiated projects based on their interest and background offer a means of bringing institutional and personal knowledges together in cycles of investigation and synthesis over time. A community-learning circle of an entire school will be responsible for deciding its own curriculum and the manner in which it will deal with government guidelines and materials.

Communication

Particular cultural groups may proceed with a strong emphasis on learning through practice and communication that is community based, oral and informal. Others may place more importance on knowledge that is encoded in a range of texts and exchanges between members that are more formal. Multi-age-learning circles with the guidance of a mentor could proceed in cycles of dialogue and communication around the essential ideas of a project with each draft consisting of both written and non-written outcomes. Indigenous and non-Indigenous students are then engaged in a practical expression of their ideas in very tangible ways that draw upon cultural backgrounds and which begin to show how practice and theory reveal themselves in particular events and descriptions of particular items.

Community

Learning within Indigenous communities relies upon family and social background, the sharing of knowledge and experience particularly through the involvement of respected Elders, a framework of practical learning and the notion of from the community to the community. At various points in your life when ready, you may find knowledge, or knowledge may find you. Schools must consider the many contradictions that exist between their approaches to teaching and learning and how such Indigenous features can be incorporated as a central aspect of a programme. With an emphasis on communication both oral and written, the question of European literacy is extremely important and may provide an intellectual architecture on which Indigenous learning can be formed in all classrooms. Experiential, whole language learning may provide the direction, while a broad mix of culture, linguistics, experience and reflection appear to be essential elements of democratic dialogue and learning for Indigenous children.

Attempting to establish democratic discursive environments for teaching and learning as envisaged here for Indigenous communities confounds the defining characteristics and assumptions of many schools in Australia and other settler societies worldwide.

Community Interest and Schooling

It is doubtful whether there is a single model of schooling that can be defined as having successfully achieved the complex learning and cultural outcomes desired by Indigenous communities throughout Australia. A more helpful approach involves description of the essential features of schooling that are required to constitute a model that will be supportive of Indigenous aspiration. This too is a difficult proposition if different models of schooling are being used to generate different outcomes for different communities. It is exceedingly complicated when a mixture of cultural and specific learning outcomes together with state benchmarks is involved. It may be that the usual indicators of attendance, retention, literacy, numeracy, credentials, pathways and community interest and participation while necessary, do not give a totally accurate or detailed picture of the success of each school. If evidence regarding a particular successful model was much clearer, it would have been implemented long ago. It is difficult for any school with Indigenous students to assemble the range of factors necessary and to implement them consistently over an extended period of time. Not all schools have Indigenous students and for those that do, most have only a small number. This makes the argument for wide spread curriculum reform very demanding. It seems apparent that either an inclusive or separated model can be successful if it has community support, cultural and learning outcomes are agreed and the range of success factors can be implemented and be sustained.

Within Australia the overwhelming majority of Indigenous children attend the local neighbourhood school primarily down the east coast (ABS, 2008) and

encounter the same curriculum as other Australian children. It is most unfortunate therefore that the regular curriculum of Australian schools has found it extremely difficult to meet the learning needs of Indigenous children. While most Indigenous children complete primary school, many are not engaged with the broad spectrum of school knowledge and drop out during the middle years of secondary schooling, not necessarily moving to formal vocational training. The segmented approach to knowledge adopted by most secondary schools makes cultural inclusiveness very arduous.

For those Indigenous families who want their children to succeed in the regular curriculum, ways must be found of maintaining identity and cultural formation, while at the same time becoming immersed in non-Indigenous approaches to knowledge, teaching and learning. This requires community support and family commitment as well as professional sensitivity from teachers. Various models of schooling have been tried to overcome such problems including assimilation on the one hand and inclusive on the other. As mentioned above, two-way schooling (Harris, 1990) and two-way inquiry learning (Hooley, 2002) propose to draw on both cultures as the basis of new understandings. With many attempts at curriculum reform, the main features of the regular curriculum continue to dominant.

For those Indigenous families who want their children to experience a more culturally inclusive curriculum, it has sometimes been possible to negotiate different and separate arrangements with state and/or private providers. Decisions that need to be made by families include how to engage privileged school knowledge such as language, mathematics, science, history and at secondary school, how to ensure access to credentials for ongoing progress. It may be that a community decides not to be dominated by non-Indigenous values and attempts to transit across cultures while establishing pathways that are considered personally and collectively satisfying.

National Programmes and Evidence

A more detailed discussion of reports on Indigenous education will be found later (see Chapter 8). The most recent document from Australia's peak ministerial body outlines a discussion of many of the issues raised above and lists a number of recommendations for systems and schools (MCEETYA, 2006). It suggests a need to 'accelerate the pace of change by engaging Indigenous children and young people in learning'. To do this, the report identifies 'five domains in which engagement is critical: early childhood education, school and community educational partnerships, school leadership, quality teaching and pathways to training, employment and higher education'. The concept of engagement is discussed around the dimensions of involvement, personal attachment to teachers and classmates and application to learning. Significantly, it is stated that 'engaged learners are doers and decision-makers who develop skills in learning, participation and communication that will accompany them throughout adulthood'. These comments mirror those of other reports, but strong emphasis on the notion of engagement and learning is

encouraging. Indigenous epistemology is not well understood in mainstream schooling in Australia. Much work is required to ensure that it is given adequate consideration by schools, teacher education and professional learning programmes.

In their recent Australian work, Hughes et al. (2004) suggest a number of Aboriginal learning strengths involving learning through observation and imitation rather than verbal instruction, holistic or global learning, trial and feedback, group rather than individual learning, the incorporation of visual-spatial skills and imagery and contextual and spontaneous learning. They also outline a number of teaching strategies including the identification of student learning strengths and teaching to student learning strengths, the importance of improving students' weaker ways of learning and developing strategies for selecting appropriate ways of learning. These comments emphasise the epistemology of knowledge and learning, rather than the actual structures of schooling.

Themes for Indigenous Education

Issues highlighted by this chapter are broad and require ongoing research and elaboration. Similar issues are seen internationally as in Australia. Separate or inclusive schools can succeed or fail depending on the educational, historical and socio-cultural context that surrounds them. From the literature and above discussion, however, it is possible to distil a number of specific items that impact strongly on Indigenous education and curriculum. These have been grouped under seven themes and commented on as follows:

- Models of schooling. A single model of schooling whether separated or inclusive cannot be defined for all places, but needs to be negotiated with each community within an agreed framework of key principles.
- Curriculum structure. It is inappropriate to attempt to design a national or state-based model of curriculum that is applied to all locations in the same way. Elements of robust curriculum that need to be considered for Indigenous communities involve cultural inclusivity, Indigenous ways of knowing, cognitive and active engagement with knowledge production, community participation and two-way connections with the regular curriculum.
- Knowledge. Indigenous knowledge must be respected within the school and form a coherent cultural context for teaching, learning and evaluation. This involves inquiry learning rather than verbal instruction, holistic or global learning, trial and feedback, group rather than individual learning, the incorporation of visual-spatial skills and imagery and contextual and spontaneous learning.
- Leadership. Experienced leadership is required in all schools to establish a culturally inclusive high-quality curriculum with high-quality teaching. Leadership exists at all levels including principals, teachers and community and involves capacity building for high expectations through the development of lateral school and community networks.

- Communities of practice. Organisational arrangements of this type involve situated learning and knowledge management. This enables an alignment between participants and tasks so that progress can be made on innovative solutions to difficult problems. All those concerned work together and are respected for the contributions they make.
- Community support. Realistic mechanisms of support are necessary if the appropriate steps are to be put in place for Indigenous education. The support of government and bureaucratic authorities is vital together with on-the-ground assistance on a daily basis if any progress is to be made and sustained.
- Teacher education. A consideration of initial teacher education programmes and of professional learning programmes for teachers and community alike involve both policy and practice questions that can radically confront the master ideologies of white society (see also Chapter 15). Teacher education is at the centre of educational reform and if the education profession is to make progress on Indigenous education must be working with new and current teachers on innovative approaches for change in mainstream and Indigenous schools. Initiatives need to be taken by universities, schools, regulatory authorities and Indigenous organisations acting in democratic partnership if improvement is to be actual and sustained.

It may be of course that the proposals discussed above are unrealistic for the dominant culture to contemplate within settler societies. The reproductive nature of schooling may be too strong to overcome particularly under globalised influence. But as has been argued, there are opportunities for practical suggestions to be put forward that combat the most conservative aspects of white curriculum and to shift the balance of concern into a more progressive direction. Systematic inquiry learning from Dewey, for example, reduces the constraints of behaviourism, critical pedagogy from Freire opens up the intellectual landscape to defensible analysis and critique and democratic organisational structures such as community schools, culturally inclusive curriculum and learning circles enable dominant discourses and cultures to be under constant appraisal and review. National and international experience can be documented and shared so that key ideas can be evaluated and adapted to meet different conditions. At some stage, issues of global reach must express themselves in local dress and at that point, schools and communities can act creatively in their own interest. Indigenous and non-Indigenous cooperation on projects of mutual consequence is the essential ingredient for success.

Chapter 6
Self-Determination

Indigenous peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development (Article 3, United Nations Declaration on the Rights of Indigenous Peoples, 2007).

Independence of thought and action is an aspiration that burns deep in communities and citizens around the world. It is pursued and expressed in various ways. As shown above by the declaration from the United Nations, self-determination of a group is generally taken to mean the right and capacity to authorize its own political bearing without force or compulsion. It applies to small and large nations alike and arose particularly as a demand following World War I and the desire by ordinary people everywhere to be rid of foreign expansion and aggression. For some, the notion of representative democracy characterizes freedom's greatest hope, where free and open elections are held and a legislature of the few makes decisions for the many. Both progressive and conservative critics can claim that it is difficult for anyone to truly represent anyone else. Devolving power to smaller groupings such as villages, communes or neighbourhoods may locate decision-making closer to those affected by the decisions. Fourth World Indigenous peoples have a difficult task in determining their relationship with the settler state and to what extent aspects of power should be separated or shared. The concept of self-determination within the constitution of a colonizing society is complicated and must deal with issues of the nation state such as the armed forces, the legal system and taxation. It could be that these matters are handled by a national government, resources are provided for shared responsibilities such as health and housing and that some matters such as schooling are handled locally. Central to the right of self-determination for Indigenous peoples is the question of land and its basis in economic, social and cultural formation.

Within Australia, the High Court has recognized native title to land. This was established in 1992 when the idea of terra nullius, or empty land at the time of European settlement was rejected. Native title was held when communities could show their continuous connection with the land since settlement and when title was not extinguished by other acts of government. The combination of both requirements has made it very onerous for Indigenous communities particularly because of the decline in population of many communities due to disease and the impact of conflict

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and dispossession together with the non-acceptance of courts of oral accounts. The decision has created uncertainty regarding the relationship between native title and other claimants to land. In 1998, for example, in the very well-known Yorta Yorta case in southern Australia, the court ruled that the 'tides of history had washed away connections with the land' in spite of the testimony of a number of local families. The Yorta Yorta case was significant in that it was not an outback claim but involved a large expanse of regional territory, major rivers, fertile dairy farming country and small towns. In 1996, the High Court clarified its initial decision when in a specific case in Queensland it ruled that native title may coexist with some pastoral leases. Following this decision, a number of Indigenous communities across Australia have been successfully negotiating with pastoralists and state governments as to how the land can be accessed and used jointly.

For white owners, one way of dealing with the thorny question of land is to return Indigenous possession to traditional owners where it is perceived as having little value for dominant groups, or to negotiate some type of leasing agreement that involves economic benefit such as access fees or mining royalties. National parks can be on traditional lands but be made open to tourists provided that certain protocols are followed. Arrangements can be made so that ores and minerals can be exploited with a proportion of funds being returned for community projects regarding health, education and housing. These are decisions that must be made by Indigenous peoples as they attempt to balance their economic and social concerns with cultural imperatives. If the dominant society creates wealth from land, then there can be little argument that the dispossessed should be able to as well, provided that cultural patterns and meanings can be respected and maintained without interference. This is the nub of self-determination for Indigenous peoples within settler societies. On the one hand, there needs to be principled and vigorous engagement with the cultural frameworks of all groups within the national polity, while on the other, the development of realistic and defensible proposals that can garner widespread support for the implementation of land and various other agreements. This is no easy task for the dispossessed and disadvantaged.

Oppression, Liberation, Transformation

As was discussed in the chapter on globalization, change is a constant feature of human life and modern society. It was noted that while some may argue that human history has ended and that forms of liberal parliamentary democracy based on a particular economic construction is the ultimate expression of progress and achievement, the continuing presence of aggression and exploitation around the world appears to indicate a counter argument. Like learning itself, Freire suggested that a praxis between action and reflection is essential for the human condition, indeed freedom itself. In outlining Freire's view, Glass (2001) has reminded us that:

> Freire contended that human nature is expressed through intentional, reflective, meaningful activity situated within dynamic historical and cultural contexts that shape and set limits on that activity. The praxis that defines human existence is marked by this historicity, this

> dialectical interplay between the way in which history and culture make people even while people are making that very history and culture.

A political position of this type that links learning and liberation also connects all activity from the personal to the community and the national and international. It guides a transformation of thinking that may initially be narrow and localized to one that is broad and global and sees the 'dialectical interplay' between each. Freire would surely argue that one person in chains means that we are all enslaved and that oppression anywhere cannot be tolerated. The place of education is important here, although whether formal institutionalized settings have yet to play a key role in eradicating poverty and uncivil practices remains to be seen. The links between education and the economy, as distinct from the links between training and the economy, are somewhat unclear however. Major decisions in many countries are not based on educational intelligence, but rather what is best for parent companies often located elsewhere. The type of education Freire might prefer to maximize its liberatory potential could perhaps be called 'emancipatory education' where people meet in community groups to consider major issues in their lives, to reflect critically and to negotiate collective methods of improvement.

The question of personal liberation for those living within rigid social structures and strong hegemonic cultural influences that may be antithetical to individual and group preference cannot be approached with any degree of underestimation. Transforming thought so that current ideas are challenged, refined, rejected and replaced does not appear to happen easily if at all. Those periods in history where radical discontinuities with economic and political rearrangements occurring that set up the conditions for cognitive change are few in number and appear to have difficulty in sustaining their impact on the way people view the world. What appears more likely is that most citizens live and work within the social conditions in which they find themselves and attempt to develop theories of society and of practice that will lead to change when the opportunity presents. Practices of oppression and liberation are linked and each will engage consideration of the other. People who have restricted means of assembly, decision-making and cultural expression need to create the social atmosphere for self-determination in whatever way they can. For the Indigenous peoples of Australia, the key determinants of education and health offer an appropriate platform for this work.

Questions of Sovereignty and Self-Determination

Behrendt (2003, p. 96) contends that 'the notion of sovereignty goes to the heart of the restructuring of the relationship between Indigenous and non-Indigenous Australia' and draws a distinction between nation and statehood on the one hand and a policy of separate development on the other. Apart from the political dilemmas involved, there is the practical problem of whether all or most Indigenous Australians would be comfortable in leaving their own locations and live in the one designated geographical area or independent state. Indigenous peoples can therefore

use the term sovereignty to not mean a separate, self-governing territory, but the maximum amount of independence within current national borders. Criticism of sovereignty and self-determination often comes from the conservative right on the basis that they lead to a fragmentation of the nation state and by definition, a weakening of conservative influence and control. They can however be described in terms of internal or domestic agreements and arrangements that do not step outside the constitution. In either case, they express an aspiration of Indigenous peoples for recognition and respect, restitution for the wrongs of the past and as much autonomy as possible in pursuing cultural, economic and political activity. These are common demands of fourth world peoples.

According to Loos (1989), the 'fourth world' was first described by the Native Canadian Manuel (Manuel and Posluns, 1974) and 'indicates not only the state in which colonized Indigenous minorities find themselves, but also their aspirations'. This is drawing a line between third world countries that were oppressed by imperial powers and experienced very poor socio–economic conditions and Indigenous peoples who live within colonial boundaries. Loos (1989, p 237) also articulates the Manuel view that:

> fourth world people should be able to control their own destiny within the framework of a nation state liberated from the colonist's ideology that the Indigenous people must be assimilated so that they accept the same values and way of life as the colonial people who have occupied their land.

A number of complicated and interrelated political terms are being encountered in this passage including the four worlds' theory, nation and nation state, national minorities and oppressed peoples and nations existing within colonized hegemony. Indigenous peoples whose land has been taken away by a colonial power do not consider themselves as a national minority, but as a sovereign people struggling to regain their independence within settler law. This can involve a separatist homelands position, or the ceding of sovereignty under agreements or treaties that provide ownership or stewardship of the land with traditions and culture to be maintained. In the case of the Indigenous people of Australia, occupation by the British was founded on the idea of an empty land and treaties were considered unnecessary. A political strategy for justice and reconciliation based upon the concept of 'oppressed nation' does not of itself lead to separatist policies, but does place heavy demands on non-Indigenous groups for the sharing of land, wealth, human rights and responsibilities.

Indigenous self-determination and sovereignty needs careful definition, but will most likely include the right of people with different cultural backgrounds to govern themselves on the basis of their own laws and traditions and to be free of external control on these matters. A Draft Declaration for Reconciliation (2000) in Australia did not provide detailed guidance on these questions and merely included the right of Aboriginal and Torres Strait Islander peoples 'to determine their own destinies'. It is presumed that a homelands argument is not being put, but rather Indigenous peoples will live within an Australian constitutional context of law, taxation and military arrangements, but be responsible for as many other matters as possible including health, housing, education, economic enterprises and the like. Factors

external to communities should be kept to a minimum, with maximum scope for internal autonomy. Whether or not some type of Indigenous regional or national governance will emerge is yet to be seen, in addition to the land councils already present and to replace the previous Aboriginal and Torres Strait Islander Commission (Parliament of Australia, 2008).

The problems associated with working through the economic, political and cultural issues of self-determination have proven intractable to date in Australia. Questions of recognizing the evils of the past, reparations, land rights and how different traditions and histories can live together in harmony and equity has extreme implications for a liberal and parliamentary democracy such as Australia and its links with the British crown. Older liberal notions of citizenry based on individual responsibility are quite different to those of collective rights of different groups within the settler state. The Indigenous people themselves are diverse with many language groups existing in remote, rural and urban centres. A more participatory form of governance built from local communities and which involves both Indigenous and non-Indigenous peoples in democratic forums of discussion and decision is not impossible, but will require a broadness of mind and intent that has been seriously lacking until now. It may be that the realistic utilization of social institutions to develop such approaches should be pursued.

Education as Enabling Force for Self-Determination

Most unfortunately, Rist (2000) is not able to report great progress when re-reading a paper he wrote in 1970 about the class nature of American schooling and prospects for success of Black children:

> The issue thirty years after my article is that there is scant evidence that the urban schools are better prepared or positioned to address issues of colour and class. Poor children in general have a hard time making it through school. Poor children who are also minority children have an even tougher time making it through. These children are just not likely to ever find a seat at the American Feast.

In many countries, education is seen as the way forward on an individual basis and for economic well-being overall. But as Rist notes, nothing is guaranteed and even for the richest nations, the division of wealth and power along lines of social background and race poses huge barriers for many. In writing from an Australian perspective, Teese (2000) also provides abundant data to concur. Education must be viewed realistically and not be over-rated in its influence of providing avenues to the feast at the national table. What education can do in all societies for all children is open up areas of knowledge for study, provide a history, explanation and critique of social practices, extend the gaze from a village to a more global viewpoint and illuminate vistas of the possible. Formal education can encourage students in their role as agents of change, but how that might be undertaken is up to them.

As one example of successful local action and initiative, Nyerna Studies, a local Indigenous word meaning ‘to sit, to listen, to learn, to remember’ was a 4-year

Bachelor of Education programme conducted as a partnership between the Indigenous people of Echuca and Victoria University in southern Australia. It attempted to construct a general practice of respect and participation so that local students could continue their education in their own country. The underlying principles of the programme included community partnership, inquiry learning, innovative practices, educational pathways and outcomes and since its inception, a greater recognition of the importance of the land. Echuca is situated on the Murray River and is characterized by the closeness of river and red gum forest systems and animal, bird and plant species. The interaction between students and between students and staff was wonderful and is a clear example of local reconciliation in action. A small group of Indigenous and non-Indigenous graduates each year successfully completed the programme as fully qualified teachers and moved into the general and educational workforce to promote an Indigenous perspective and to continue to support reconciliation amongst the peoples of Australia.

In talking about the Yolngu people of Arnhem Land in northern Australia, Christie (2001) points out that the corroboree can be seen as a metaphor for knowledge production and that:

> This ceremony is fundamentally the collaborative production of a story of ancestral travel. People come together from different places, speaking different languages, but all sharing some aspect of the story. To get the story right, everyone must share their perspective, in an active co-operative way. They leave their sacred business and their differences behind in the spirit of co-operation. They are careful to tell their own story and no-one elses and they work together to produce a performance that reflects a rich combination of perspectives on the here and now.

This process describes the approach of Nyerna Studies very well. No one had to prove anything to anyone else; community culture and experience for all was respected and a strong effort was made to ensure that different viewpoints were heard from students, staff and community. Learning was seen as a cooperative and group venture, where new understandings arose from the sharing of knowledge and experience of everyone involved. Educational programmes must combat the many ravages of colonialism and disadvantage that surround them and promote independent thought as best they can. A programme of respectful, culturally inclusive learning is an appropriate way of tackling this issue, provided that the full dimensions of local and broader cultures are actively engaged along the way.

Indigenous Culture and Knowledge

There are three broad domains of culture and knowledge to consider from an Indigenous perspective and in relation to settler societies: those that are public, those that are private and those that have an exchange value. In the public domain, Indigenous issues are well known, are subject to discussion in mixed social settings of various types such as schools and universities, books, newspapers, video, film and over recent years, a wide variety of Internet addresses. They may be political, economic, cultural and historical in nature. The private domain on the other hand includes languages, traditions, beliefs, customs, ceremonies, sacred sites, histories

and kinship matters that are specific to a people, may be only known to Elders and explain connections with the land at particular locations. There is a third domain that is made up of knowledge and culture that is available for sharing and exchange such as paintings, stories, other cultural artefacts and economic implications for the land such as native plants and animals that are based on the life and experience of local communities. This issue is of great concern around the ethical conduct of research programmes. All three domains can contribute to self-determination but can also involve exploitation of one group by another, if respect and sensitive understanding are not present. The many difficulties to be encountered here are indicated by Dodson (2003, p. 27) when he writes:

> Since their first intrusive gaze, colonizing cultures have had a preoccupation with observing, analyzing, studying, classifying and labelling Aborigines and Aboriginality. Under that gaze, Aboriginality changed from being a daily practice to being a 'problem to be solved'.

For non-Indigenous educational institutions concerned with teaching and learning from a democratic perspective, the question becomes one of how each domain is to be handled. There are a number of issues at stake that impinge on self-determination and which recur throughout this book:

- How to determine what should be public or private?
- Should issues be taught in a formal sense, or be discussed and investigated more discursively, informally and holistically?
- How can an Indigenous perspective be incorporated across the agreed curriculum of mainstream schools?
- What specific methods of assessment are culturally inclusive especially for literacy and numeracy?
- How to ensure that issues are discussed with respect and encourage a serious engagement with different cultural standpoints?

In each instance, reference to the local community for consultation, advice and ongoing participation in the programme is the first step. For example, it is clear that much of the private cultural domain cannot be taught by non-Indigenous staff because by definition it is unknown. As a further point of respect, issues that are public domain may not be taught formally in the sense that teaching proceeds in the primary school, but may be identified and discussed generally for students to pursue if they wish. This is the question of whether to organize learning as a means of merely transmitting predetermined knowledge, or as a self-regulated process within an agreed framework of experience and reflection. Depending on the level of education, students can construct an Indigenous perspective for the viewing of issues, rather than focus on specific content knowledge itself. Monitoring the validity of learning and the setting up of an accepted validation process is perhaps the most difficult issue in education and a broad scope for the demonstration of student understanding should be available and agreed by the local community. Indigenous colleagues, Elders and guest speakers can provide guidance as the programme rolls out.

A practical way of respectfully dealing with Indigenous culture and knowledge within formal educational programmes is 'Two-Way Inquiry Learning' (Hooley,

2002). This draft approach will be discussed in more detail later (see Chapter 10) and is mentioned here in relation to its support of self-determination. It has emerged from the practice of Nyerna Studies and is an attempt to counter the pernicious effects of assimilationist policies as they might apply generally and in education. The notion of two-way inquiry is based on the idea that all human societies around the world have an over-lapping set of principles that guide the manner by which they make sense of their worlds. This is not to impose or dominate or to deny difference, but to recognize that to learn is to be human and that the human organism interrelates with its environment in a similar way wherever it is found. Such interrelation involves practice and experience, reflection on outcomes and replanning for ongoing action. A process of this type takes place within a context of political, economic and cultural factors, all of which strongly impact on perceptions and interpretations. A child growing up by the ocean will have a different experience to those living in desert country, but their epistemologies will be similar. A child living in poverty will see the world differently from those living on the other side of the river, but it is difficult to postulate different physiologies. If one culture and political perspective of power and wealth is not to dominate and assimilate a culture of lesser influence, then procedures must be found of identifying agreed values that can be incorporated into a framework of social practices, procedures and laws. This of necessity must include education.

Some of the principles of two-way inquiry learning include a learning programme that begins with the knowledge and culture of learners not the institution, arrangements that are culturally inclusive. Processes of inquiry need to encourage cycles of practice, reflection and personal theorizing, assessment procedures that do not assume cultural superiority but allow for a wide scope of demonstrated achievement and progress and strong links with local communities that support participation and critique. At centre stage for Indigenous learning and therefore central for two-way inquiry, is the way in which learning is inextricably bound with the land, where all humans ultimately draw their knowledge from the natural world and see themselves as an integrated part. This is a process of democratic dialogue that inverts the normal flow of knowledge from expert to novice and which sees understanding as developing over time within groups of learners who are working on important matters of mutual concern. It is a difficult process to implement in schools and universities where structures and policies may be entrenched and the pressure of outside factors immense. It challenges conservative power relationships and epistemologies and demands that programmes of study have a social purpose, whether for local communities or more broadly.

Researching Knowing: Talking with the Land

For Indigenous communities and those working with white educational institutions, research and knowing needs to be redefined to support their own self-determining interests and contributes to survival in an often hostile socio-political environment.

A cultural approach to this problem could perhaps be conceived as 'talking with the land'. Watson and Chambers (1989, p. 1) explain the situation clearly when they write:

> Finding methods for using the knowledge and belief systems of different cultures in an enterprise of mutual benefit is not simple. Firstly, if we are to avoid exploitation of other communities' intellectual property we must engage in participatory research where people of different intellectual traditions render mutual respect and treat the endeavour as a partnership of equality. Secondly, unlike some others, the Western intellectual tradition does not have established research methods whereby non-Western modes of knowledge production are recognized.

Participatory action research seems to fulfil the requirements of working in a democratic fashion with Indigenous peoples, but there are many practical difficulties to solve depending on the specific project and the relationship between the research agency and local community. The notion of participation itself is a minority view in educational research and challenges many of the assumptions of more acceptable means. In his discussion of teacher education research, for example, Zeichner (1999) outlines inter alia some of the main methodological influences over the past 30 years. It is clear that much progress has been made, although the field is still very new and more progressive approaches have yet to be recognized let alone consolidated. Even the notion of qualitative research itself seems to remain problematic and the idea of description as measurement uncertain. While the connections between educational research and teacher education research are not necessarily close, there are similarities from which each can learn.

Participatory and critical forms of knowing do not separate and indeed recognize the impossibility of separating research and life. It is not so much what a researcher does that is important, but rather, what a researcher is and is becoming, a view very well known to critical and participatory action researchers. A racist who goes to work in the morning and does important research on vaccinations for children can return home that night still a racist. The question must be asked, what is more important, medical research, or being a racist? This example raises the question of a disclosed and explicit personal research perspective from the researchers as the beginning point of any research programme. It should not be possible for non-racist members of the research team to ignore the political standpoint of a racist colleague, not only on political grounds, but also because of the way in which such views will distort the lens through which the data are viewed. It should also be the case that the research team undertakes to have the work challenge its most fundamental principles, beliefs and practices, as members of the society within which the work is conducted. Just as it is a strong ideological position to deny such connections, it is equally a strong ideological position to make them clear and to see the project as an opportunity to attack bias and prejudice in society generally.

The package of ideas noted above can contribute to the philosophical position of 'learning from and talking with the land'. For non-Indigenous people who have little continuing contact with the natural environment, such a process will be difficult to comprehend, but efforts should be made to re-establish the connections. What can be suggested is that an Indigenous epistemology, pedagogy and

andragogy will attempt to locate learning and understanding within an unhurried naturalistic conversation involving landscape and human, where care is taken to observe and interpret and relate to the stories that are communicated. The concept of 'learning readiness' means that for each of us, the learning and understanding will occur when the conditions allow it to occur and when the knowledge finds the learners. A general strategy of trying to set up an appropriate 'land-based' framework for learning and then working together on serious issues in collaborative groups over time with infinite patience and collegiality segues with Indigenous and non-Indigenous epistemology. 'Talking with and leaning from' the land can be taken as a metaphor to guide the exploration of knowledge, but it can also constitute a clear philosophy of learning itself where all humans and researchers are taken as being in a constant relationship with their country and community where understanding resides and is encountered.

Participatory Knowing

Indigenous peoples view life holistically and any attempt at separation is seen as quite artificial and in fact dangerous. Holistic in this context can mean that not only are all artefacts in country connected, but there is no substantial difference between human and non-human artefacts. This is traditional Indigenous ontology. It is different to the notion of integrated knowledge or integrated curriculum where aspects of country and knowledge are similar and related but are not necessarily of the same type. Socially, lives are lived for the benefit of the community and work outside these boundaries is to be avoided, it will destroy the practice and tradition of community itself. For European educators working with Indigenous communities, the holistic nature of knowledge should inform the basis of all such work, where culture is respected and is not subsumed by the dominant regime. Under these circumstances, the role of the teacher is not so much to prepare Indigenous people for a passive role in promoting European culture and values in an educational setting, but rather to immerse students in a framework of knowledge and cultural production, application and social critique that will be in the interests of both Indigenous and non-Indigenous peoples wherever their location. The role of the progressive teacher is not to prepare employees for institutionalized schools, but to encourage public intellectuals with democratic habits of heart and mind that will establish the links between scholarship and change, between practice and theory, between knowing and doing, in the interests of the majority of citizens. Teachers as scholars, researchers and public intellectuals become agents of historical change.

For Indigenous communities, research methods and ways of knowing need to take propositions that have become evident to date to a deeper level, to unveil the complexities of what it means to fashion one's way within a dominant and oppressive culture, to learn aspects of what others consider important, but to retain personal autonomy and integrity as well. For example, it seems apparent that the essential character of primary schools is more congruent with Indigenous life particularly in

terms of language development in its broadest sense, but the culture of secondary schools is much too incongruent. The transformation of secondary schools into environments that support Indigenous learning should be a major research question, but one which does not proceed easily or superficially.

The contradictions that exist between Indigenous and non-Indigenous values, expectations, cultural practices, histories and approaches to knowing are enormous at the secondary level; it is the structures and procedures that need to change, not the Indigenous child as Dodson alluded to above. In Indigenous communities, children are seen as being independent and self-sufficient, quite differently to their non-Indigenous counterparts. This alone sets up a serious contradiction in mainstream schools, leading to miscommunication, misunderstandings and sometimes open hostility. Resolution of this situation appears obvious, but is difficult for the hegemonic culture to readily accommodate. To better appreciate classrooms with Indigenous students, research methodologies need to be personal, essentially qualitative and experiential, informal and emphasize the role of community; they certainly need to recognize and disclose the ideological, political and cultural context of teaching and learning. In an interview with Wakshul (2001, p. 17), Native American Winona LaDuke expresses the connections with community that cannot be broken by any institutional practice or academic project:

> Leadership is about taking care of your community, about nurturing and growing things that nourish your community. It's about having the vision and foresight to move ahead. I'm viewed by some as a leader, but I consider myself a recorder of the stories and struggles important to the community, as an advocate for the community, as *ogitchidaakwe*, or one who defends their people, which is different from *ogimaakwe*, a leader.

Not only does this view reconstruct the western notion of leadership, but it opens up the links between research and community through the idea of a community activist being a 'recorder of stories and struggles' and therefore, a reflective practitioner in the true and progressive sense of the expression. The academic literature contains an extensive body of rigorous reference material supportive of such qualitative, participatory, narrative, naturalistic and autobiographical studies (Bullough and Pinnegar, 2001; Lincoln and Denzin, 2003; Lincoln and Guba, 1986) and that connects with Indigenous notions of community and knowing. Reflective practitioner research where community groups undertake investigations into their own lives, culture and needs, requires quite the opposite of a 'fly on the wall' approach. A good example is the essay by Manne (2004) on the stolen generations where he adopts a very clear perspective in presenting evidence and comment on a highly political issue. This document is written in a readable, informal style and seems to mix data and commentary. It probably requires much more additional work on the issues so covered, but this fits with a cyclical action research project. It opens the door for Indigenous community groups to follow up with their own studies applicable to their own communities.

Kleinsasser (2000, p. 155) injects the concept of personal reflexivity into the equation of knowing and research and quotes from Schwandt:

> Reflexivity: (a) the process of critical self-reflection on one's biases, theoretical predispositions, preferences; (b) an acknowledgement of the inquirer's place in the setting, context and social phenomenon he or she seeks to understand and a means for a critical examination of the entire research process.

Reflexivity is an explosive and contested term in sociology and is often taken to refer to a prime characteristic of current modernity, that is society itself is reflexive. On the other hand, the idea of reflexivity as a personal process of self-reflective practice in the way described above is a completely different proposition. A qualitative research team engaged in practitioner knowing could adopt this definition as a guide to their personal disclosure not only during the research design phase, but as a way of critically evaluating their views as the research unfolds over time. A systematic procedure would need to be agreed from the beginning and be modified along the way. It may be that a programme of writing could assist, perhaps through journal writing and case study writing and incorporating structured discussion. Major determining features of social life could then be subject to ongoing analysis, features such as Indigeneity, ideology, economics, culture, race, class and gender and form the context within which the research proceeds. The actual means of the group coping with contradictions and tensions as they are revealed will also require a negotiated process.

If reflexivity on a personal level is significant and significant for Indigenous projects then it seems appropriate that it becomes part of a research process. This however will not occur of its own volition, but will require a systematic effort from those who support qualitative practitioner approaches. The question then must be asked: What is the impact of educational and teacher research, does it matter? How does the knowledge arising from formal research programmes become known and acted upon, by teachers and local communities? A critique of educational research may find that in general the links between findings and uptake are tenuous, but that there are specific pathways that emerge as conditions alter and the need dictates. It may be however that findings during this historical period of the past 100 years in the European countries have not been focused or entirely relevant to changing classroom practice in any substantial way and that another period of time will need to elapse for this to occur. If this is so, the methodologies of educational research currently in vogue need thoroughgoing critique and much more work is required to construct more culturally inclusive, socially useful and epistemologically challenging methodologies that can be pressed into service for the majority of the people. The conservative stranglehold that current status quo techniques enjoy must be broken.

The Australian High Court's rejection of the Yorta Yorta land claim because 'the tide of history had washed away any real acknowledgement of traditional law and any real observance of traditional customs' struck at the very heart of Indigenous self-determination. If the High Court is right then who is responsible for such cultural annihilation, how is it possible for one group of people to dismiss the evidence provided by others about culture and family history, how can a particular political perspective make judgements of this kind? For Indigenous people, the issues of colour, race and identity are forever present and will form the basis of any research

endeavour, the data will be viewed through Indigenous eyes and all that that entails, an Indigenous perspective of culture and knowing will form the baseline of everything. A non-neutral approach such as this and not the reverse will lead to understanding and truth.

The struggle of Indigenous people to recover their lands and to ensure their ongoing connections with it and the specific case mentioned of the Yorta Yorta draws into stark relief the questions of knowledge creation and its validation and how questions of cultural context and power relations cannot be extracted, in other words, questions of self-determination. It is quite impossible and correctly so, for the Yorta Yorta people to disengage their history, traditions and aspiration for their children from the land and its role in teaching, learning, sustenance and overall well-being. This holds true for both Indigenous and non-Indigenous peoples: the prospect of not considering equality, liberty and injustice within any research project carried out in highly unequal societies is nonsensical.

Enlightenment and Emancipation

This discussion has suggested that issues regarding education, knowledge, research and learning from the land are component parts of a participatory culture and an Indigenous self-determination. Given that history is obviously not dead and that humans continue to seek justice and rationality as normative principles or narratives underpinning their lives, the movement for self-determination constitutes a major property of modernity. There appear to be few agreed theoretical constructs to assist this process particularly within second world countries like Australia where the Indigenous peoples are considered as oppressed nations within the capitalist state, living in and across the second and fourth worlds. One idea that may be useful is that of the 'public sphere' another key idea that will be discussed more fully later (see Chapter 15). While Kemmis (2001) raises the possibility of public spheres as being appropriate for educational research and evaluation, the proposal is not without its critical supporters. Fraser (1997), for example, nominates four public sphere assumptions to contest: whether participants are social and political equals; whether there is a single or multiple public sphere; whether discussion refers to the common good or private interest; whether there must be a clear distinction between civil society and the state. These questions are of vital concern for Indigenous communities.

There is concern that the principles of European Enlightenment can also lead to the oppression of Indigenous and non-Indigenous people alike. From a Maori perspective, Smith (2000, p. 211) comments that:

> It worries me, as an Indigenous person, if we do not also see the dangers associated with the way in which science is constructed to promote the reification of Western thought. A particularly critical element for me here is the way in which technological rationality is embedded within science. Such positivistic framing of the world and social relations is at odds with Indigenous ways of thinking.

The assumption here may be that modern science is inherently positivist depending on empirical data alone as evidence and as such is quite contradictory to Indigenous culture and knowledge production. This is an extremely important criticism given the centrality of science to modernity and the Enlightenment. As mentioned previously, science may have such instrumental and conservative elements, but it also has others of a communicative and descriptive nature and that the school curriculum as well as research projects can reflect these as well. The term 'Enlightenment' can also be clarified and refined if this is thought appropriate to centre its direction on more personal approaches while retaining its original intent of emancipating ordinary people from oppression and conquest. The European Enlightenment was never intended to replace one tyrant with another and concepts that were defined in one historical era at a particular place need to be reinterpreted as times change. The changing nature of the struggle for Indigenous sovereignty and self-determination is also made by Behrendt (2003, pp. 115–116) when she notes 'where these aspirations have found form in current debates' including recognition of past injustices, autonomy and decision-making, property rights and compensation, protection of cultural practices and customary laws and equal protection of rights. All of these can easily fall within the ambit of Enlightenment and self-determination and are not harmed by the procedures of science. As Behrendt concludes, 'they offer an agenda for inclusion, participation and equality' (p. 117) and for the destabilization of ideology and institution.

Within Australia, the issue of reconciliation and Indigenous self-determination could very well proceed through constitution as a public sphere. They are matters that involve public debate for the general good, they involve systematic discourse with a mixture of coercive and non-coercive discussion and impact upon government policy making. The issues involve legal considerations such as land rights and moral questions when participants are accused of wrong-doing and whether they should continue to hold public office. Clearly, the discourse brings together the great issues of our time, those of class, race and gender. As Chief George Manuel might have said (see Ryser, 1995), the concept of a public sphere may need to evolve by 'visiting the villages' and 'linking community organization with international co-operation'; it may enable discussion of pivotal questions to proceed between the economic and political constraints of state requirements on the one hand and the available forms of citizen interaction on the other. Educational discourses as public spheres could refocus on reaching a communicative consensus rather than winning a strategic position and enable protagonists to explore mutually beneficial arrangements. A small step along the road to emancipation and enlightenment for humankind and for sovereignty and self-determination for Indigenous peoples, but a step nevertheless.

Self-determination does raise many difficult legal, democratic and moral questions for the nation state, but at its core remains the battle between public and private. As Reynolds (1996, p. 190) explains:

> For 200 years before the great expansion of settlement in Australia traditional concepts of property had been undermined in Britain by parliament and the courts. The open fields had been enclosed, as had many of the commons. The ancient customary rights to hunt

> and gather had been progressively restricted. The old idea of land being used for different purposes by different people, none of them with absolute right of possession, had been replaced by the concept of absolute and exclusive property rights.

From this notion of private property flow many other practices involving laws and regulations to protect settler holdings and to ensure that Indigenous people accept and conform to European ways. Such conflicts are very much alive today as issues of native title and the ownership, leasing and exploitation of land attest, not only in Australia but around the world. They are compounded by market and global forces that are exceedingly strong. On the other hand, issues of self-determination and sovereignty challenge the world view of Indigenous and non-Indigenous peoples as they strive to reconstruct past practices and institute new respectful socio-economic arrangements of acceptance and neighbourhood.

Chapter 7
Culture and Environment

It is important for those wanting to bring Indigenous Knowledge into teaching and learning contexts to understand what happens when Indigenous Knowledge is conceptualised simplistically and oppositionally from the standpoint of scientific paradigms as everything that is 'not science' (Martin Nakata, 2007, p. 191).

A biological and evolutionary explanation of existence would suggest that the purpose of human knowledge like all other human endeavour is to enable 'survival and meaning' of the species (Watson and Chambers, 1989). Such fundamental purpose is then elaborated by philosophical and political analysis and action. In pursuit of these outcomes and during the modern era, non-Indigenous life has sought to exercise domination over the natural environment while, at the same time, Indigenous life resonates and harmonises with the surrounding landscape. After many thousands of years of treading lightly, the impact of Indigenous peoples on the environment is impossible to observe. The essential nature of the underpinning economic system for each will determine this relationship.

Culture figures large in the struggle for survival and meaning. Works of literature and art are based upon and reflect the nature of the real world and how artists, intellectuals and academics interpret events and relationships. Ideas and formats that are seen as cultural start from social practice as distinct from ideas themselves existing in the mind alone. On a continuum, cultural experience can be evaluated as being flippant and superficial, private and public or complicated and intense, exposing both the light and dark of human notoriety. The many interrelated aspects of culture that can be identified in societies around the world such as music, song, dance, painting, language, sport, values, ideas and aspirations contribute strongly to human survival and the search for understanding. Cultural forms of this type promote communication and expression and help to establish whatever is the desired relationship with the environment. This may not be entirely obvious with all cultures at all times and the closeness of that relationship will vary depending on the political and social circumstances; culture is not socio-economic neutral and is to be explained, not merely experienced.

N. Hooley, *Narrative Life*, Explorations of Educational Purpose 7,
DOI 10.1007/978-1-4020-9735-5_7,

The impact of globalisation on culture will continue to be profound. Ready and cheap access by all social classes to satellite communication, television entertainment and news services, video and music equipment, film outlets and Internet facilities has resulted in a suffocating blanket of bourgeois culture descending worldwide. This has an inevitable tendency to equate culture with activities that are self-indulgent and primarily individual leading to personal gain and many of the pillars of capitalist ideology. The dialectical base/superstructure model of society is further illustrated in this way. All cultures from different groups and classes face a difficult future therefore as they attempt to construct an independent existence and develop diverse characteristics that spring from national histories and experience. For oppressed nations such as Indigenous peoples in first and second world countries, the defence and extension of local cultures becomes a major imperative.

Understandings of Indigenous Culture

It is difficult if not impossible for non-Indigenous Australians to understand the issue of Indigenous culture, its essence, strengths and development. This is especially so when similar questions can be asked of white culture. For example, the relationship between contemporary Australia and the outback and its place in literature and the arts, current views regarding values such as mateship, a fair go and support for the underdog, heroism associated with diggers on the mine fields in the early days, World War I veterans, the Australian bushranger Ned Kelly and the romanticism of bushrangers generally. All of this local history remains strong yet uncertain and challenged in a globalised and marketised world. Not only do the Indigenous people have to contend with a framework of this type, but they must also combat the pressures on culture arising from exploitation, discrimination and perhaps most of all, dispossession of ancestral land as the basis of culture and of life itself. From a non-Indigenous perspective, it would seem that Indigenous culture would be suffering extreme tension and that a combination of traditional and contemporary experience and practice needs to be constantly reworked.

The esteemed British essayist T.S. Eliot (1948, p. 120) spoke of culture in the following terms:

> By ‘culture’, then, I mean first of all what the anthropologists mean: the way of life of a particular people living together in one place. That culture is made visible in their arts, in their social system, in their habits and customs, in their religion. But these things added together do not constitute the culture, though we often speak for convenience, as if they did. These things are simply the parts into which a culture can be atomised, as a human body can.

Eliot was writing from a British perspective and soon after the end of World War II. He was therefore very concerned for the preservation of a European civilisation and culture amidst the devastation and ruin. Exactly how the whole is more than the sum of the parts is unclear, but Eliot does suggest that Christianity has

provided a common bond and if religion goes, so does culture. From this it follows that different religious groups have different cultures, that non-believers may not have any culture at all and that within the one society different groups may have different sub-cultures. Eliot's use of the word 'visible' also implies that although there are artefacts of culture, such items arise from a deeper system of faith, values and beliefs.

Writing in the previous century to Eliot, the British critic, poet and educator Matthew Arnold (1932, p. 69) also spoke within a religious framework of humans pursuing 'perfection' and 'sweetness and light'. This is a concept of culture concerned with pure knowledge and understanding, not only in a scientific sense, but in the moral sense of doing good as well. When this is occurring for as many people as possible, humanity experiences 'happy moments' and

> how those are the marking epochs of a people's life, how those are the flowering times for literature and art and all the creative power of genius, when there is a national glow of life and thought, when the whole of society is in the fullest measure permeated by thought, sensible to beauty, intelligent and alive.

Arnold is making a strong connection if not a unity between knowledge and culture and like Eliot draws a distinction between what is produced in the name of culture and culture itself. Religion as the basis of morality forms the foundation of culture as well and the pursuit of perfection is no doubt an understanding of the word of God. From a particular British point of view, culture then has something to do with an underlying set of values that guide human action and understanding and a set of artefacts that give expression to these values.

A third view of culture from a Welsh heritage is provided by the writer Raymond Williams who, as theorist, critic, dramatist and novelist, wrote in a broadly Marxist tradition. Williams (1989, p. 4) argued that

> A culture has two aspects: the known meanings and directions, which its members are trained to; the new observations and meanings, which are offered and tested. These are the ordinary processes of human societies and human minds and we see through them the nature of a culture: that it is always both traditional and creative; that it is both the most ordinary common meanings and the finest individual meanings.

In this passage, Williams significantly sees culture as a way of life that is ordinary or one that is encountered every day, but one that involves meaning that is both individual and collective, traditional and creative, fixed yet dynamic. A culture of this type is relational with other key ideas in our society such as learning, art, democracy, transformation and is not restricted to those of wealth and privilege; it does not seem to have a religious imperative. The strong connection between culture and meaning raises questions of epistemology regarding how meaning is actually approached and apprehended in the human realm.

Based on these thoughts from different political perspectives, it occurs that the existence of a culture presupposes a belief regarding human origin either from a religious or materialist standpoint and the subsequent relationship between humans and the natural universe. Significantly, a similarity can be proposed between the Australian Indigenous cultural notion of the Dreaming and the European scientific

theory of Evolution. This may be seen as a long bow to draw, but it opens up a hugely important area of research in terms of reconciliation; there may be linkages to be explored between Indigenous creation stories and non-Indigenous science. The Dreaming is understood as that process whereby ancestral beings who are still present walked upon the earth creating all of its features including living species, thereby establishing the dialectical relationship between Indigenous people and 'Mother Earth'. As Coombs (1994, p. 9) notes, the Dreaming's 'vast repertoire of names, songs, stories, dances, designs, paintings, sculptures and engravings, interwoven and embodied in ceremonies, served as a storehouse of Aboriginal culture' and provides the basis of traditional aboriginal life. It explains the connection that all Indigenous people have with the land, a connection that if broken places survival of the species in jeopardy.

The Dreaming is a difficult concept for non-Indigenous people to grasp and it certainly challenges the view that human life began somewhere such as Africa and then moved somewhere else on the face of the Earth. This is not the traditional view of Indigenous Australians. Edwards (2004, p. 16) points out that Australian Aboriginal people 'believe that they came from the land on which they live and have occupied that land since the creative era of The Dreaming. This is thought of by Aboriginal people as the beginning of their existence, of their heritage and of their cultural life'. Edwards then goes on to comment that 'The Dreaming is likewise not a shadowy reflection of real life, but is envisaged as the reality itself from which life, as we experience it, is derived.' Detail of The Dreaming has to be translated for each people across Australia and varies depending on whether the environment is coastal, desert, river and the like. The connections with cultural formation are also made by Edwards (2004, p. 18) who notes that 'The Dreaming is many things in one. Among them, a kind of narrative of things that once happened, a kind of charter of things that still happen.' This seems to be a view that is reasonably close to Williams and his idea of 'meanings and directions'.

The Dreaming can be understood as a religious view of creation only insomuch as it involves a non-human or superhuman force, but not requiring prophets, obedience, afterlife, or worship. On the other hand, the western view of human evolution only requires the existence of matter and energy for humans to emerge and change over time. Current work in cosmology suggests that to these two initial properties of the universe can be added information, complexity and consciousness. That is, through the ongoing transformation of matter and energy and the concept of the universe as a huge information system, a threshold of complexity is reached with life and consciousness as natural consequences. Regardless of fundamental differences, both the Dreaming and Evolution can be considered as non-religious belief systems providing the necessary conditions to underpin a cultural framework of human activity and development. The contradiction between imposed other forms of religion such as Christianity and the Dreaming would generate severe tensions and undermine traditional understandings of origins and cultural practices.

Berndt and Berndt (1999, p. 228) make the significant observation that they could not find different words meaning 'knowing' and 'believing' in their contact with

Indigenous groups, making the difference between knowledge and faith unclear. They were however able to distinguish between rituals that were 'sacred' or 'religious' in terms referring to 'actions, persons, objects or verbal material, rather than to belief as such; phenomena which can be seen or heard, rather than phenomena which must be inferred'. The field appears to be confusing as in his discussion of religious versus positivistic thinking, Harris (1990, p. 22) takes a different emphasis when he comments that:

> The Aboriginal world is characterised by religious rather than scientific attitudes in the sense that what they believe is more important than what they can prove or understand, but of course it merely involves a different basis of proof and understanding. Aboriginal society has probably rightly been called the most religious society in the world, because it does not separate the religious and the secular to the same extent as do many others.

Combining the 'religious and the secular' is an impression that depends on a European understanding of each. This statement may be utilising the concepts of religion and spirituality interchangeably where the latter is defined essentially in terms of the search for meaning. The notion of metaphysical does not preclude a scientific explanation of phenomena based on the procedures of observation, measurement and a form of validation. From a scientific perspective or interpretation, the human concerns of morality, origin and purpose can be seen as arising from a more scientific understanding of the environment and universe. Similarly, the claim that Aboriginal society is very religious because of an apparent integration of belief into everyday life where formal prayer and worship are not necessary can also be made for modern science where the procedure of systematic inquiry becomes a framework for action and analysis as daily events are encountered. A spiritual connection and relation with the land and other living species also does not necessarily imply a religious relation, but can have similarities with a scientific understanding of matter, how matter can be transformed and indicate other possibilities such as 'when the storm clouds gather look for the turtle eggs' and provide explanation from a non-religious perspective. There is not necessarily any connection between spirit beings and the provision of turtle eggs at particular times of the year.

The relationship between humans and the land or nature can also be demonstrated through a system of totems where a sharing of life with other species is imperative and binding. In his seminal and controversial study, Elkin (1938, p. 165) described the significance of totemism as a 'view of nature and life, of the universe and man, which colours and influences the Aborigines' social groupings and mythologies, inspires their rituals and links them to the past'. He further proposed a series of classifications involving in broad terms, social totemism concerned with human relationships and ritual totemism which is concerned with sacred tribal issues. The integrated outlook of Indigenous peoples is amply shown here not so much in religious terms, but in linking all living creatures, the land and humans with perhaps a recognition that matter while existing in one form at one particular time can be transformed into another as conditions alter.

Artefacts of culture arise from a set of beliefs such as these. Stories, song, dance, craft, painting and the like are practices common to peoples all over the world. While the surface features may be different, the essence remains the same, that is, the expression of ideas and experiences in accord with a common framework of values, beliefs and customs. For the Indigenous people of Australia very few of whom adopt a traditional lifestyle these days, the problem becomes one of retaining a commitment to tradition and identity while at the same time, recognising that culture is a dynamic process of change and adaptation. This is a problem for other, non-Indigenous groups as well who may well ascribe to a different set of values to that promoted by the dominant group. Many of the Indigenous peoples of Australia live in urban and regional cities and towns and engage in economic, cultural, technological and community activities which are the same as other Australians. There is a 'two-way' process at work here where people must endeavour to live in two worlds rather than be assimilated into one.

The scientific or materialist concept of life and therefore of culture will embrace a cycle of life and death, where humans constituted by matter and energy at one point as life will be transformed into a different arrangement of matter and energy at another point, as death. A spiritual view on the other hand will need to accommodate something other than matter. Elkin (1938, p. 360) puts it this way:

> Found by his parent in a spiritual experience, he is incarnated through his mother and so enters profane life. But a few years later, through the gate of initiation he partially re-enters the sacred dreamtime or sky-world which he has left for a season. After passing farther and farther into it, so far as the necessities of profane life allow, he dies and through another gate, the transition rite of burial, he returns completely to his sacred spirit state in the sky, the spirit-home, or totemic centres, perhaps to repeat the cycle later, perhaps to remain, perhaps to cease to be.

A more recent publication involving an Australian Indigenous view (Sveiby and Skuthorpe, 2006) involves and extensive discussion of spirituality as well. These are complicated issues and may be lost in translation, particularly with very little traditional life remaining in full. This explanation of death as transition has similarities with some religious views, although the possibility of repeat cycles remains open. It seems that the spirit does not return to residence with a supernatural being as either a reward for or the culmination of living. The body can be disposed of in a variety of ways including burial and cremation

The concept of culture that is emerging from the discussion to this point and which may be useful for working across cultural settings includes the notions of a collection of values and beliefs concerning human origin and relationship to the natural world, an extensive range of activities that give expression of both groups and individuals to this relationship and a constant interchange between the two as the socio-political circumstances change over time. A superficial understanding of culture will not enable different cultural groups to understand each other, nor indeed it will not encourage each cultural group to refine and develop its understandings and practices based on contact with and challenge from the other. Only a substantial democratic contact and respectful critique will allow the histories of each to be interpreted in a manner beneficial to both.

Culture as Way of Life

Clearly, because of a vastly different life experience, the working class view of culture will be different to that of the bourgeois class, the Indigenous view different to that of the non-Indigenous. The question becomes one of understanding the basis of cultural settlement and negotiation and whether it is essentially cognitive or socio-economic in character. Ideas and practices of culture can be associated directly with the economic system and forces of domination, with the value systems of morality, law, science, aesthetics and critique, with a democratic process of communication and the public sphere, or be seen to arise from broad networks of knowledge subject to appropriate validity claims. These divisions are not absolute and are interconnected. From a bourgeois point of view that holds power and wealth as uppermost, a more luxurious, abstract and non-experiential approach to culture is possible, being seen as supernumerary to survival, employment and access to resources. It is also possible to argue that while aspects of contemporary marketised culture constitute an 'opiate of the people' that seduce and distract from the historic need to improve the conditions of human existence, the key elements of working class culture can be suggested as

- lack of ownership of the means of economic production;
- survival depending on a capacity to work;
- survival demanding a need to find out and express meaning;
- life that is practical and experiential;
- linking of daily activity with creative interpretation, knowing and doing;
- sharing of knowledge and group interest through the development of social practices, communication, artistic form and artefact;
- sense of fair play and solidarity with others in a similar situation;
- personal and community consciousness that springs from connections with history and the social and physical worlds.

It is not difficult to see how the daily experiences of working people around the world will tend to dominate their other activities and how these other activities will not be undertaken to compensate for exploitation and exhausting physical and intellectual labour. The issue of alienation arises again here with the estrangement of personal production and ownership of what is produced being the root cause of dissatisfaction and unhappiness. Living in poverty, with appropriate housing, health and education being impossible for the family, makes it somewhat difficult for citizens to turn their time and minds to more creative activity. Cultural globalisation will often support meaningless, commodified and time-filling activity for the majority of people including the young in contrast to their working lives, unemployment or various forms of casualised, decontextualised employment. As a substitute for dignified work and social participation offerings such as sport, food, drink, entertainment and increasingly illicit drugs of varying kinds are provided. This must be in the interests of wealth and privilege, given the huge expenditure in promotion otherwise it would not be tolerated by those who control the dominant economy.

The distinction being made is that what goes under the banner of cultural activity may involve large numbers of people, but may not be cultural at all, or may not be in the historic and political interests of those same large numbers of people. It may, however, be in the economic and cultural interests of the minority.

Ill health makes this point very starkly. Not only do citizens on low income encounter poor diet, perhaps a lack of physical activity and associated illnesses more frequently, their access to health services and insurance schemes is more limited. When illness does strike there is an enormous social and emotional burden placed on all members of the family that impacts negatively on many other aspects of daily life. It is true that these conditions may strengthen legitimate cultural experience in terms of solidarity and a determination to make a better world. For this to occur, it is usually necessary for a number of other social supports to be in place. It can be extremely difficult to reverse a downward spiral and to transform a distorted cultural understanding or practice. For the working class, survival and health go hand-in-hand with a weakness in one having a very direct relationship with the other. This case indicates that culture does not exist in mid-air, disconnected from the place that is occupied by all within the economic framework.

Humanities and Science

Modern science has developed at an exponential rate over the past 300 years and has had a huge impact on the entire world whatever the specific economy or culture. Its major defining accomplishment to date has been the harnessing of atomic energy and the development of atomic weapons. Gene technology is also a more recent candidate yet to be finally assessed. Technology in general has had a similar trajectory including the development of the steam engine, the motor car and assembly line, to the jumbo jet and space shuttle, to telecommunications and the convergence and miniaturisation of technologies. Much of this has been generated from a perspective of private profit and aggression between nations. The struggle for acceptance or dominance between science and the humanities has also featured during this time.

There has always been a strong relationship between the humanities and culture, with ‘good’ literature, poetry, music and the arts generally being seen as the basis of ‘good’ culture. As scientific achievement grew, however, stimulated by the industrial revolution and beating the earth into submission, it demanded a place on the agenda of equal rights and recognition, a demand that has still not been totally met today. High culture was seen to reside in the humanities principally through the work and view of a series of European writers because of the creative and abstract nature of their work, as distinct from science and technology that was viewed as being utilitarian and not therefore contributing to a detached and reflective expression. Like many others, this division is artificial and at best is based upon a misunderstanding of science, or at worse, arrogance and snobbery. There are various interpretations of science still being worked out. They range from the strictly empiricist approach where truth is seen to exist in measurement and data and nothing else, to an eclecticism where science has no distinctive method at all but proceeds by humans

acting as they do in life generally, a mix of desire, power and reason. Whatever the view, there seems little justification to separate science, the humanities and culture given that each seeks to understand and to assist humans in their journey. The notions of working class culture listed above fit neatly with the broad parameters of science that emphasise experiment and inquiry, theory building and knowledge production and suggest that culture becomes dynamic and evolving having each aspect mutually inform the other.

The influence of science and technology on the culture of all social classes is now difficult to dispute and in fact, is responsible for some overlap. Computer-based technology, for example, is accessible to young and old, male and female, rich and poor around the world, admittedly to different extents, but accessible nevertheless. The use of Internet communications, video conferencing and CD/DVD materials all contribute to a style of communication that builds on but is different to text-based literature and expression. This could be argued to support a working class culture with a greater reliance on a practical communication involving speech, diagrams, charts, as well as the written word. If truth does arise from a democratic discourse existing in language and within a public sphere of association, then it follows that culture and science are significant components of such communication and are not necessarily contradictory. Culture itself needs to be viewed as changing as the social conditions change and as humans engage in new activities. The holistic concept of human knowledge and understanding means that culture is a holistic endeavour as part of the overall biological process, not something that is kept separate and elitist, a highbrow versus a lowbrow humanity. Indigenous education can certainly work with such ideas for its own benefit.

Mathematics, Genes and Memes

In addition to the ongoing conflict between science and the humanities, both real mathematics as practised and thought by ordinary people daily and the mutant school mathematics as taught can also be considered a cultural pursuit. (A more detailed discussion of mathematics occurs in Chapter 13.) How could it be any other way? Knowledge and culture are intertwined as strategies for understanding the universe and to progress. If it is accurate that mathematics is the ultimate truth as it seeks to describe and explain the relationships between and within matter through symbols and logic and such a quest draws upon reflective experience, then the dialectic within knowledge and learning can be witnessed again. It follows that mathematical insight from an Indigenous and non-Indigenous perspective needs to inform each other.

As discussed later, in making a comparison with genetic evolution, Dawkins (1989) theorised that ideas, customs, ceremonies, art and the like were also subject to cultural evolution by changes to what he called the ‘meme’ structure of the brain. In the same way that genes replicate physical characteristics of the human organism, memes enable the replication of ideas for their ‘survival and meaning’. Why is it, for example, that an idea like ‘capitalism’ may find root at a particular time and an idea

like ‘socialism’ at another? What are the conditions that cause this to occur and for one to be converted into another? If human life has emerged as a property of complexity and of the universe, then the body and brain may be a platform for memetic transmission and evolution, again as a property of the universe. This concept links the social and economic conditions with biological and cultural development and shows that culture is not something that has a life of its own for personal enjoyment and appreciation only. Like other proposals, the concept of meme provides a model for thinking about how humans interact with their social and physical environments and how various cultural experiences can support, strengthen or change specific viewpoints. It brings the sciences and humanities together.

Thinking about memes and mathematics as essentially cultural may provide some guidance in reforming school mathematics and culture so that the learning of the majority of children can be enhanced. If this cannot be achieved, then there is little to justify mathematics remaining in the school curriculum. The dominant approach adopted by schools in Australia, for example, to the teaching of mathematics has resulted in a small number of students who engage in mathematics for its beauty and explanatory power, but correspondingly a large number who either do not complete school mathematics to the end of secondary schooling, or who fail at some point in their studies. While this situation may have improved over recent years, it remains arguable that the number of students who do not continue to pursue mathematics to the end of secondary schooling, or find the subject difficult to access and comprehend, is unacceptably high. More importantly, regardless of the proportion of boys and girls who pass their examinations, the depth of mathematical understanding is not known, let alone the significance of mathematical learning that should be attached in the same way as being overcome by the beauty of a sunset.

A variety of contradictory philosophical viewpoints are evident regarding the nature of mathematics. It seems appropriate that Indigenous peoples be familiar with these ideas from non-Indigenous philosophy if cultural change to the curriculum is to occur and also be aware of the connections and ruptures with there own approach to the character of the universe. The key questions with which the philosophy of mathematics must grapple are whether or not mathematics is the path to ultimate truth about ourselves, why does mathematics constitute a foundation of the universe free of uncertainty, why does it exist in the first place as distinct from a figment of human imagination and how can humans best engage such ideas? How can these ideas be investigated by children in schools? These questions need to consider whether or not mathematical objects are a part of the evolving social and cultural context including mathematical proof and whether or not indubitable mathematical truth once exposed remains so forever. Other factors such as the new techniques provided by information technologies, implications for gender-based learning and the perceptions and explanations of Indigenous peoples similarly cannot be ignored.

Primary and secondary schools in Australia have continued to follow an essentially formalist approach to the teaching of mathematics although there has been policy development, curriculum reform and classroom initiatives designed to establish more constructivist environments at all levels. The formalist iron grip that mathematics and school mathematics appears to exert on teachers and the

community generally is difficult to understand, but it does explain why efforts at substantial redefining reform face such resistance. It may be that the links between the economic base and the superstructure of mathematical learning and schooling have determined an ideological symbiosis that will take many decades to break. For schools, constructivist and intuitive learning may proceed to a certain extent only with almost insurmountable barriers being placed in the way. An integrated approach to mathematical thinking would bring together essential ideas from other disciplines such as literature, arts and technologies where mathematics can be theorised as an intersection of ideas to create new areas for investigation. For school teachers, a meme, idea or theorem of this type challenges classical understandings and reconfigures traditional curriculum so that many more intellectual access points for Indigenous students are available.

Relationship with the Land

We now return to the attachments between culture and country. Humans relate to the landscape in a variety of ways for understanding and use a range of methodologies from the sciences and the humanities. Connecting mathematical learning with the environment is a straight forward matter in one sense for a minority, but much more complicated for the majority in another. If ultimate truth is a mathematical expression then it falls to some to explore and uncover while for others mystery and power differential remain the norm. To gain a more experiential and intuitive relationship with mathematics for the majority of people, however, will require the opportunity for ongoing systematic reflection on both practical and abstract idea. Following a 3-day camp in a bush setting and discussion about the environment, for example, a group of first year teacher education students were asked to write some diary comments about their thinking. A representative sample of this work is shown below:

Entry 1. Maths, as pointed out at camp, is like a huge spider web. It is an intricate web of millions of ideas and theories related to the universe. I have never viewed maths in this way in that I have never stood back and grasped the entire picture. In my mathematical learning I have studied chapters of text books, but I have never really linked the chapters together and looked at the problems as a spider web.

Entry 2. I found that the class learnt a great deal by simply discussing, reflecting and pondering. This is the first time that I have seen this done. What it allowed was for deep thinking to take place on what mathematics really means. Does it really mean anything? I have yet to answer this. Unless you can grasp what it means, there is really no point in practising it.

Entry 3. One major point I will take with me to schools is that maths is around us in so many ways every day and we have to learn to embrace it. We have to learn that it just isn't a subject which is dictated from a text book, rather that it is very much a part of the process of life.

This is very significant, insightful, original and philosophical writing. It is significant because a tentative hypothesis suggests that for new university students fresh from the secondary school system and its narrow mathematical confines, it is possible to encourage a broader intellectual framework to push back the barriers to thinking. The writing shows a naturalistic trend towards constructivism and intuitionism and a willingness to consider that school mathematics at least combines these features with a more formalistic approach. Statements regarding the links between mathematics and life could be Platonist although this is difficult to determine. They also show a personal integrity and independent capacity of students to navigate their own way, a process that is possible for Indigenous and non-Indigenous students alike.

Can the idea of memes assist us in understanding how mathematical concepts are not only made intelligible to humans, but can form the basis of changed understandings as well? For schools which focus on the teaching of predetermined ideas to students rather than the establishment of frameworks for learning with students, memes set up a model to challenge for democratic communication between participants. In the same way that what is communicated, argued, written, composed, improvised, painted is not replicated exactly in the brain, but has always elements of interpretation and re-interpretation, teachers seek to communicate ideas to students but need to recognise that the thinking that surrounds such ideas will be stamped with a socio-economic perspective as well as a range of other cultural views that vary from person to person. Both genes and memes can be mutated however. This has serious implications for how we envisage a public sphere operating and what we can expect of the validity claims that may constitute its work.

In the same way that memetics can be linked to mathematics, memetics can be linked with art as expression and art as literature. The strength of Indigenous art and culture generally may rest on this concept. Non-Indigenous people often judge Indigenous art by the same criteria as they use for their own art. It may be however that what is perceived as Indigenous art is more akin to literature, a medium for the passing on of knowledge, the telling of history and story, the formation of a community discourse and a linking mechanism across many generations. European art does this as well, but often this is taken as a secondary rather than primary characteristic. Viewing a series of paintings as a literature rather than a classic art form in European and white terms can apply to both the Indigenous and non-Indigenous, but in regard to the former there are three advantages. First, it recognises the essence of culture as meaning and survival. Second, it acknowledges an Indigenous literature extending back thousands of years. Third, it eliminates the need for comparison between cultures and the inevitable negative consequences of inferiority that can be drawn with the European cradle of civilisation. If it is also true that the economic base has the deciding influence on artistic form as every other, then Indigenous art and literature provides a window into the nature of Indigenous economy. In Australia, this relationship can be seen with art that depicts the life of the bushranger Ned Kelly, the impressions of the Heidelberg School of painters including Tom Roberts and Arthur Streeton, the World War II social commentary of left-wing artist Noel Counihan and the water colour landscapes of Albert Namatjira, an Indigenous painter from

central Australia. Clearly with all of these, a memetic process may be in action with the human body an organic platform for the transmission and formation of cultural forms and values.

If life as we know it is a function of a complex universe, then the connections if not unity between matter and thought, between genes and memes and between all forms of human knowledge including the sciences and humanities, mathematics and the arts, constitutes the basis of all learning. That is, the cultural duality of meaning and survival becomes the trilogy of learning, meaning and survival. For Indigenous peoples, the addition of learning to meaning and survival takes on a particular significance especially for those living in fourth world countries. What is the nature of Indigenous learning that takes account of morality, identity and ideology-critique on the one hand and is able to maintain cultural integrity in regard to the formation of community meaning on the other? How is the concept of traditional knowledge accommodated and the processes and timing by which it is communicated when confronting capitalist imperatives? These are the philosophical questions that form the backdrop to the resolution of educational and cultural reconciliation and which must take up the issue of how humans relate to the land and learn from it and how human consciousness and understanding are shaped accordingly.

Culturally Inclusive Schooling

Suggesting that formal systems of capitalist education adopt approaches to teaching, learning and curriculum design that include a wide range of cultural and world views is a big ask. Can a leopard change its spots? Can (or should) a curriculum become 'Indigenised' or trend towards Indigenous persuasion across junior and senior year levels? The same questions of course can be directed at different oriented economies as well. It may in fact be impossible to transform systems that are based on exclusion to varying extent, although it is certainly possible to transform specific parts and tendencies. Capitalist schools fall into this category with progressive educators for many years developing programmes and working for curriculum reform against the dominant educational current. In countries like Australia with multicultural school populations, teachers have been forced to be highly innovative and to place demands on government for adequate resources to support the necessary programmes and the provision of appropriately qualified teachers. One of the great political success stories of post-World War II has been the manner by which schools have coped with non-English speaking students and how the curriculum has attempted to change accordingly. As the first peoples, Indigenous Australians draw a distinction with multicultural schooling and it is significant that while claiming success with multiculturalism, there has been almost complete failure in creating schools that have an Indigenous perspective as a major characteristic of their work. This indicates great difficulty of the society at large in coming to an understanding of how the key concepts of culture, leaning and Indigeneity might form a holistic philosophy of learning and how this might form the basis of structural curriculum change.

An inclusive curriculum for all schools and all children will need to take account of two broad categories, those of family background and those of school organisation, factors that exist between schools and within schools. There is debate regarding the relative significance of each category, or whether a mix of both has the greater impact on school outcomes. This debate is of much more than academic interest as governments can allocate different proportion of their education budgets accordingly amounting to many millions of dollars. If it is thought that factors that exist between schools or those that impact on family background are important, for example, then resources will need to be allocate to programmes that take account of gender difference, or problems with provision in remote areas. Conversely, if factors that exist within schools such as school organisation are more important then attention will be given to ensuring qualified staff, professional development and school leadership. The former view of 'school improvement' suggests that issues related to family background can seriously disadvantage young people when they attempt to progress through social institutions that my not be in tune with their needs and outlooks. The latter view of 'school effectiveness' suggests that regardless of student background the schools can arrange themselves in such a way that disadvantage does not occur, or at least is substantially combated. In this case, the role of the teacher is seen as the major factor to student success as it is argued that good teaching can overcome or compensate for family experience. A curriculum inclusive of Indigenous interest cannot remain aloof from such questions, especially as they bear directly on Indigenous culture and belief.

A curriculum can be essentially rigid or flexible. That is, the knowledge that students encounter and the manner of that encounter can be determined by external authorities, or can be determined by the learners themselves. The extent of flexibility can vary from primary to secondary schools and within schools. Australian public schools generally operate within a framework of government policy, with the actual curriculum design being the responsibility of representative school councils. Private schools are also impacted by government regulation particularly at the senior secondary level, but overall, to a much lesser extent. They are certainly influenced by religious concerns in many cases and the views of wealthy parents and business organisations. Given that education systems are funded by governments, it is to be expected that their ideology and direction will be supportive of the economic system and its attendant value networks. The curriculum will have a social class nature in terms of the knowledge that is considered important and the way in which it is assessed. Ultimately at the secondary level it is necessary to sort and select the finest and the best for tertiary study and at this point, the bourgeois nature of the education system is most clearly seen. Generally speaking, universities are under no formal obligation to be inclusive and operate competitively, some with their high fee structures that proudly cater for a privileged class. Designing a curriculum that is inclusive of working class values when schools have a middle class character is a challenge. What can be done is to identify areas of overlap particularly in the processes of learning that have a recognised literature and practice and that will be of benefit to all students whether of colour, Indigenous or non-Indigenous alike.

For schools with Indigenous students, the notions of culture, environment and inclusiveness must loom large on their educational horizons. This is especially so during the middle years of schooling when the intensity of contradiction between the family and community culture and the school becomes very difficult to bear. For this pressure to be relieved somewhat, the curriculum must be able to embrace the ideas of perspective, culture, identity and democracy as discussed previously. In many respects, these ideas are publicly supported by the bourgeois state and appear from time to time in policy documents. There is then scope for debate regarding their inclusion. The notions of multiculturalism and Indigeneity should be listed as key features of any curriculum regardless of how many students there are in the school from different countries and with Indigenous backgrounds. Citizens and teachers who are democratically minded and have a political allegiance to educational inclusiveness and equity must come to grips with such matters and the dispute that envelopes regarding between-school or within-school difference. They need to promote strategies to ensure that adequate funding to support whatever school programmes are required. In the wealthy countries in particular there should be no excuse for appropriate support for all schools and all children. In addition to the general list noted previously, to be inclusive of Indigenous learning at a specific school the curriculum at all levels must embody key principles that recognise cultural difference and in particular connections with the natural environment and which will enable family background and innovative school organisation to be accommodated. Such principles of culture and environment could include

- learning based on personal and community interest and depth of understanding for meaning making;
- personal and community learning that enhances curiosity and engagement with ideas and projects within a context of dynamic culture;
- harmonious, respectful relationship with natural environment;
- learning that is generated locally and tempered by global issues;
- processes of holistic inquiry with thinking and doing combined in all learning;
- project-based learning for partnerships with community and knowledge including projects of land and water conservation with Indigenous rangers;
- collaborative assessment that is culturally inclusive integrated into all learning;
- community participation in schooling especially by Elders as mentors, facilitators and advisors in residence;
- democratic decision-making with parents, teachers and students on all major curriculum matters.

These principles are advanced as a cultural and epistemological rather than sociological framework for inclusive curriculum regarding all students. They support Indigeneity and multiculturalism and will have a significant impact on current curricula in most schools if operationalised with integrity. Generally, certificates offered at the end of secondary schools are not based on these principles and to move in their direction will require huge ideological change. Most subjects at all levels do not comprehensively combine practice with theory or theorising and are usually seen

as being more practical or more abstract. More perniciously, students are seen as being more practical or more abstract with life chances being decided accordingly. In general at the primary and secondary levels, students have little input into what knowledge is considered important. It does seem strange that at least in countries with an economy that can support mass education at all levels and with a professed adherence to social equity that such democratic principles cannot be applied across all educational systems. This provides added evidence that educational systems are constructed for the elite and minority and constitute systems of power, advantage and disadvantage congruent with the economic framework within which they are sited. Pragmatic and theoretical means of intervening and disrupting this arrangement for the benefit of the majority becomes essential work for democracy and reconciliation. Learning, meaning and survival are inextricably linked to culture and country for all Indigenous peoples and these must become guiding concerns for the regular curriculum of all schools.

Chapter 8
National and International Insights

> *For many Indigenous peoples the major agency for imposing this positional superiority over knowledge, language and culture was colonial education (Linda Tuhiwai Smith, 1999, p. 64).*

Similar problems and predicaments surround Indigenous education worldwide, although socio-historical conditions vary markedly in first, second and third world countries. In a report concerning the work of the United Nations (IWGIA, 2005, p. 518), it was recorded that:

> The Special Rapporteur notes that the main obstacles to Indigenous peoples' full enjoyment of their rights to education are traditional assimilation practices and an ignorance and underestimation of Indigenous languages and cultures on the part of mainstream education systems. Over the last few years however we have been witnessing changes and, in some countries, Indigenous cultures have been given the benefit of official recognition within mainstream education. Some countries have also acknowledged that a bilingual and intercultural education is very much needed. However, Indigenous peoples' aspirations go further than this: they are demanding the right to receive an education in their own language, adapted to their own culture.

It would seem to be impossible to make such a brief summary statement regarding Indigenous education worldwide, but this paragraph appears to be both accurate and comprehensive. It hits the target. From an epistemological point of view 'traditional assimilation practices' need to be overcome across the curriculum of mainstream schools by adopting progressive and pluralist approaches to knowledge, teaching, learning and assessment that destabilise the imposition of a unitary, white and dominating approach to schooling. This can be taken up in literacy and numeracy, for example, as discussed elsewhere in this volume. An 'ignorance and underestimation' of language and culture can be combated by persistent and high-quality professional learning programmes for teachers with ready access to materials especially online and available worldwide. Efforts at establishing 'bilingual and intercultural education' can be continued taking into account local conditions and problems including the provision of qualified staff and language speaking community members. It is extremely difficult to design programmes for Indigenous children 'in their own language, adapted to their own culture' in the regular curriculum but there are successful examples of where this has been attempted. If the paragraph is

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accurate and comprehensive in identifying the major issues that need to be acted upon, then strategic policy and practice need to be developed around them without delay for long-term application.

Worldwide Perspectives

The following sections of this chapter briefly delineate some of the activity that has been undertaken on Indigenous education in New Zealand, Alaska, Canada, United States and Australia. It draws upon national reports where available and information from the United Nations and UNESCO. Unfortunately, space does not permit a more extensive review or consideration of more countries, but the evidence cited is deemed to be appropriate across many jurisdictions. As this book emphasises an Australian perspective, the other countries and state chosen are similar to Australia in that they have dominant white social classes, have comparable economic and value systems and invest substantial amounts of resources in education. As a state of the United States, Alaska provides an example of the increasing role of native peoples in the education system. The review of Australian work is necessarily much more extensive and raises some specific issues such as literacy and curriculum as general examples for consideration elsewhere.

According to the United Nations, there are more than 370 million Indigenous people in some 70 countries worldwide (United Nations, 2008). It notes that:

> Indigenous peoples are the inheritors and practitioners of unique cultures and ways of relating to other people and to the environment. Indigenous peoples have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live. Despite their cultural differences, the various groups of Indigenous peoples around the world share common problems related to the protection of their rights as distinct peoples. They have sought recognition of their identities, their ways of life and their right to traditional lands, territories and natural resources; yet throughout history, their rights have been violated.

In April 2000, the Commission on Human Rights of the United Nations adopted a resolution to establish the Permanent Forum on Indigenous Issues (United Nations, 2008). This forum is an advisory body to the Economic and Social Council. Its mandate is to discuss indigenous issues related to culture, economic and social development, education, the environment, health and human rights. This is work of the utmost urgency when, according to UNESCO (EFA, 2006, p. 30):

> Today, by conventional measurements, some 771 million adults are illiterate, two thirds of them women. This is, for a fifth of the world's adult population, a serious violation of human rights. It also constitutes a major impediment to the realisation of human capabilities and the achievement of equity and of economic and social development, particularly for women.

This is an appalling situation, more particularly so when the basic definitions of literacy are involved. Literacy is both a democratic human right in itself, but it also enables other human rights to be accessed and empowers citizens to play a more active role in their society. The need for universal primary education around the world is therefore of utmost importance especially for mothers and their daughters.

Putting questions of research and testing aside, it is quite unacceptable that there should be any vestige of illiteracy for any single child in the wealthy countries where universal primary education has been established for many decades.

It is difficult to obtain an accurate view of Indigenous education in different countries merely by reading reports and studies from afar. What is actually happening on the ground in different communities, systems and schools may be somewhat different to what is reported, or it may be difficult to describe and report very clearly the complicated conditions that exist. Rather than the brief summaries and comment that follow, what is really required is a detailed volume in its own right that attempts to explicate the epistemological progress and problems being experienced around the world. In broad terms, however, it is possible to identify the following three insights or themes that apply internationally:

- Indigenous peoples are very consistent on the educational principles that they see as being necessary to support Indigenous education including in mainstream schools.
- Non-Indigenous people and governments are very consistent in relation to the policy problems and decisions they face particularly for Indigenous children in mainstream schooling.
- Governments, education systems, the education profession and schools have major epistemological and pedagogical problems in implementing appropriate reform in the interests of Indigenous peoples, let alone in transforming the curriculum and teaching in mainstream schools so that progress is substantial and sustained. Discussion on the reasons for such seemingly intractable problems can be found in Chapter 14 together with some practical examples to assist rectification.

From these insights, it could be concluded that powerful forces in the world are not entirely interested in making progress with them. It is quite remarkable how similar situations, language and programmes characterise race, colour and Indigenous problems around the world, in Australia and elsewhere, then and now. From a progressive point of view, however, it must be made impossible for white settler education to escape the truths of Indigenous existence such that ‘To all Aboriginal peoples the land is sacred and is the well-spring of all life forms and the heartland of all being’ (Voigt and Drury, 1997, p. 59) becomes a central tenet of mathematics, science, literature and art curriculum. A new holistic, empirical and cultural mathematics, science, literature and art must emerge for mainstream schools from grappling with the three sets of problems above in relation to Indigenous epistemology. What is now required is an ongoing dialogue around the world regarding Indigenous education that attempts to resolve these moral questions in ways that have not been contemplated before. Ultimately, these must take up the epistemological modes and processes that apply in classrooms every day across all areas of the curriculum and which must challenge dominating white knowledge. As Denzin and Lincoln (2008b, p. 563) assert, Indigenous methodologies enable ‘a profound rejection of Western appropriation of Indigenous knowledge for the marketised usages

of the West' and thereby support a more democratic and personalised approach to learning for all children. The white wealthy countries in particular with a history of colonial practices have a responsibility to transform their systems of Indigenous education immediately.

New Zealand

New Zealand is an independent country with a population of 4 million people of which the Indigenous Maori make up around 14% (Codd and Sullivan, 2005). The Maori were New Zealand's first settlers making their journey from Polynesia to the north of New Zealand, about 1000 years ago. The first documented European to discover New Zealand was the Dutch navigator Abel Tasman in 1642, followed by Captain James Cook who claimed it for Britain in 1769. The Treaty of Waitangi seen as New Zealand's founding document was signed in 1840 between leading Maori chiefs and representatives of the British Crown at Waitangi, in the Bay of Islands. The Treaty of Waitangi Act which was passed in 1975 set up a tribunal to hear Maori grievances regarding the treaty. The tribunal can hear claims about any issue covered by the treaty since 1840 including recognition of Maori rights.

In a report by the Special Rapporteur on human rights and Indigenous issues in New Zealand (United Nations, 2006), it was noted that 'During most of the last century, the use of Maori language in schools was actively discouraged, in order to promote instead assimilation of the Maori into European culture as rapidly as possible.' This has now altered to the extent that there were in 2003 about 6000 students and 415 Maori staff in total language immersion state schools, 85 bilingual schools and a mixture of schools offering immersion and bilingual classes. The Special Rapporteur also commented that 'Maori culture has been rapidly and pervasively revived' with Maori education now featuring instruction in Maori and 'customary philosophies, rituals and laws' also being taught.

More specifically, the following detail is taken from the Te Kauhua Maori Mainstream Pilot study and indicates the major issues that apply to Maori education (MENZ, 2007). Maori students in the compulsory schooling sector have historically performed less well than their non-Maori counterparts. Teachers in mainstream schooling contexts appear to have lower expectations of Maori students, fail to effectively identify or reflect on how their practice impacts on the educational experiences of these students and have limited support to address these particular issues. The premise underpinning the Te Kauhua initiative was that Maori student outcomes will improve when they see themselves reflected in a curriculum, and when teachers of Maori students are supported to be reflective about their practice and become agents of change for Maori.

Intended outcomes, identified by school clusters, focused on five common goals including

1. enhanced literacy and/or numeracy outcomes;
2. increased Maori usage in classroom and school-wide practice;

3. enhanced teacher understanding and practice of discursive pedagogies to improve the teaching and learning environment;
4. increased Maori student participation, retention and success; and
5. strengthened relationships between teachers and students, students and students, teachers and teachers, teachers and parents/whanau and schools and communities.

These issues are common worldwide. All participating schools were asked to undertake an action research project to monitor the effectiveness of their professional development activities. The focus was upon continuous improvement through trialing, modifying, reflecting and implementing new pedagogical and interactional methodologies. On reflection of the pilot study, participating schools identified a number of factors that can inform ongoing work in determining a framework and infrastructure for building teacher capability through professional development. These included critical success factors, barriers to success and recommendations for school communities embarking upon similar professional development journeys.

Alaska

As the largest state in the United States but with a small population, Alaska has about 15% Native American or Alaska Native amongst its people (McBeath and Morehouse, 1994). According to Barnhardt (2008), the native people of Alaska 'are now asserting their own ideas for transforming schooling into a more culturally adaptive form of education' through a bringing together of traditional and mainstream knowledges in schools. In 1994, the Alaska Rural Systemic Initiative (AKRSI) was established to document Indigenous knowledges and to support teaching practices that were culturally inclusive. It was recognised that native populations would need to take greater control of their own education and to design initiatives in their own community interest. Barnhardt describes this approach for rural Alaska as 'two interdependent though previously separate systems being nudged together' while remaining part of an overall education structure.

An important aspect of the AKRSI has been the development of a set of cultural standards by Alaska Native educators and Elders. These draw upon a number of key principles that are applicable for all children and encourage all teachers to integrate culturally responsive approaches into their work. For example, it is recommended that culturally responsive teachers will 'develop a philosophy of education that is able to accommodate multiple world views, values and belief systems, including attention to the interconnectedness of the human, natural and spiritual worlds as reflected in Alaska Native societies' (ANKN, 2008). This is the difficult task facing all teachers worldwide, as they attempt to meet the requirements of the regular curriculum, while at the same time, respect and work with the different cultural understandings of the children in their class.

Test results for mathematics between 2000 and 2003 for 8th and 10th grade students indicate improvements in learning outcomes, although the gap between

AKRSI students and non-AKRSI students at 10th grade remained substantially the same (Barnhardt, 2008). It is difficult to interpret such results in the short term, especially as schools are dealing with entrenched educational and social problems and the field of school mathematics itself may require major reform (see Chapter 13). Adoption of the culturally inclusive guidelines in Alaska's native rural schools, however, has implication for schooling in many others parts of the world.

Canada

About 4.4% of the total Canadian population of approximately 32 million people reported having at least some Aboriginal heritage in the 2001 census, an increase from 3.8% in 1996 (Canada, 2008). The Canadian constitution does not recognise the separate status of Indigenous peoples, but protects rights such as land claim agreements and the inherent right to self-determination and self-government. In 1998, a formal statement on reconciliation was made on behalf of the Government of Canada. Throughout Canada, the federal government has responsibility for schooling on Aboriginal reserves, but in other Aboriginal communities, education is the responsibility of the provinces and territories. In broad terms, the agenda is again similar to that of Australia, that is to improve achievement amongst First Nation, Metis and Inuit students and to close the gap between Aboriginal and non-Aboriginal students in the areas of literacy and numeracy, retention of students in school, graduation rates and advancement to postsecondary studies.

The Special Rapporteur on human rights and Indigenous issues has reported that 'Aboriginal peoples in Canada are still trying to overcome the heritage of a colonial education system which severely disrupted Aboriginal families, their cultures and identities' (United Nations, 2004). While there are many problems yet to be overcome, 'there are also some outstanding successful cases where the needs of remote communities are addressed and where First Nation cultures are celebrated in a positive and supportive learning environment'. Provinces and territories are taking steps to ensure that all students have adequate knowledge about Aboriginal peoples in Canada.

It is reported that for Ontario (Ontario, 2007) the main issues affecting Aboriginal student achievement are a lack of awareness among teachers of the particular learning styles of Aboriginal students and a lack of understanding within schools and school boards of the histories, culture and perspectives of Indigenous peoples. Factors for success are suggested to include teaching strategies that are appropriate to meet the needs of Aboriginal students, curriculum that reflects culture and perspectives in appropriate ways, effective counselling and outreach programmes and an environment at school that encourages community participation and engagement. Like many other countries, there is some mistrust of the formal school system related to previous experiences that has intergenerational impact. The four framework principles stated by Ontario involve excellence and accountability, equity and respect for diversity, inclusiveness, cooperation and shared responsibility

and respect for constitutional and treaty rights. A number of initiatives have been or will be undertaken to achieve these goals including alternative programmes within native friendship centres, enhanced native studies and native languages, tutors in the classroom, professional learning programmes for teachers and school boards.

United States

In the United States, a similar story exists as in Australia. Nearly two million people identified themselves as Native American on the 1990 census, a smaller Indigenous proportion than that of Australia (Thornton, 1998; USA, 2008). One third of those reside on over 300 reservations, and the remaining two thirds live in urban or rural settings. Native Americans constitute domestic nations with limited rights to sovereignty. Under the Constitution of the United States, the administration of Native American relations is the sole responsibility of the federal government. As in many other countries coping with the impact of globalisation, youth unemployment is a problem. Youth who are employed are more apt to work in service areas, farming, forestry, fishing, production or as operators/labourers. While many in the population are facing socioeconomic stresses there is a growing cultural and educational resurgence underway. Native Americans are rediscovering or retaining their culture by establishing ancestry and literature, reclaiming their native languages and becoming involved with political and social issues such as natural resource management and protection of treaty rights.

It is interesting to note that the tenor of debate in the United States in the 1800s still resonates to some extent in other countries today such as Australia. In 1879 for example, the goals of the US Government included Indian peoples becoming self-supporting and farmers and to undertake education in 'civilised ideas, wants and aspirations' (Cassidy, 1995, p. 334). The Dawes Act of 1887 which divided land into individual allotments to break down the concept of a tribal home and associated federal education policy that involved instruction in English and the formation of boarding schools for Indian children, both supported assimilation practices. Given the significance of land for wealth, power and culture around the world, it is not surprising that invading and expanding nations turned (and continue to turn) to ways of transferring authority from the original inhabitants. Ensuring dominance and cultural reproduction is one of the main features of education systems worldwide and explains why ruling elites have little interest in respecting Indigenous learning.

The National Indian Education Study (NIES, 2007) is a two-part study designed to describe the condition of education for American Indian/Alaska Native students in the United States. The study was conducted by the National Centre for Education Statistics for the US Department of Education, with the support of the Office of Indian Education. Part I of the study, presents the results for American Indian/Alaska Native students at grades 4 and 8 on the 2005 National Assessment of Educational Progress in reading and mathematics. The NIES report goes on to say that at both grades 4 and 8, American Indian/Alaska Native students had a lower

average score in reading than the average score for all other students in the nation (students who are neither American Indian nor Alaska Native). Similarly, at both grades 4 and 8, American Indian/Alaska Native students had lower average scores in mathematics than the average score for all other students in the nation (students who are neither American Indian nor Alaska Native). This is further evidence that the problems with literacy and numeracy for Indigenous children worldwide are seemingly intractable in the mainstream curriculum and that schools struggle to 'ride two horses at once' where different culture is concerned.

Australia

Within Australia's overall population approximately 2.4% are Indigenous and despite being amongst the world's most wealthy countries, there are many serious problems concerning Indigenous poverty, health, education, employment and housing. Australia does not have a commendable record regarding Indigenous education at all levels of schooling (Fordham and Schwab, 2007). As is found in other countries, the educational and social situation is complex involving as it does different views and practices regarding power, race, knowledge and learning. It has been mentioned previously that Indigenous students are dispersed across urban, regional and remote communities, with the majority attending neighbourhood schools in the towns and cities of eastern Australia where they are generally a small minority of the individual school population. A formal treaty has never been signed between the Indigenous and non-Indigenous peoples of Australia, nor is there a bill of rights that includes Indigenous rights. This is still a live discussion especially in relation to Australia's future as a republic and involves proposals to amend the Constitution. It is difficult to generalise across Indigenous communities that have different languages, histories and aspirations. A report from the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA, 2006, p. 13), listed the following items as being substantial:

- While there has been a significant rise in the Indigenous proportion of preschool enrolments in recent years, approximately half of eligible 4-year-old children do not enrol.
- Disproportionate numbers of Indigenous students do not meet national benchmarks in literacy and numeracy at Years 3, 5 and 7, with results about 20% below the national average.
- School attendance of Indigenous students can be low particularly at the secondary level where it can be the central factor in success.
- Retention to Year 10 is lower than for non-Indigenous students and is lower to Year 12 where it is about half for non-Indigenous students.
- Participation rates for Indigenous students in lower level technical and training programmes is higher than for non-Indigenous students, although this rises to a higher proportion for some higher level training certificates.

Given the connections for all Australians between formal education and access to higher education, vocational education and training, economic and family security and status in the community, these trends from preschool onwards contribute markedly to personal, social and economic disadvantage. They are however well known and the inability of Australian society to make progress on their improvement gives cause for grave concern. The significance of educational reform for Australian Indigenous peoples cannot be overestimated.

Literacy, Cornerstone to Democracy

In 2000, Australia took part in the inaugural OECD Programme for International Student Assessment (PISA). Approximately 500 Australian Indigenous students aged 15 years took part. Analysis of the results provided the following information in part (ACER, 2004, p. vii):

- Australian Indigenous students performed at a lower level than non-Indigenous students in reading, literacy, mathematical and scientific literacy and were below the OECD mean.
- Gender differences were similar to other Australian students with females outperforming males in reading literacy but with similar results in mathematical and scientific literacy.
- Results in reading show an over representation in lower levels and under representation in higher levels, with 40% performing at level 3 or better.
- Differences were found in the learning strategies, learning preferences and behaviours of Indigenous students where they had less preference for a competitive learning environment and spent less time on homework.

In commenting on an earlier studies (ACER, 1998), Hughes (2000) pointed out that the aggregation of national data may mask successes of smaller scale work. He identified three positive operational characteristics of success: the degree of pastoral care and support afforded to Aboriginal students, the awareness of and respect for Aboriginal culture and the educational priorities of each school. Hughes concluded that there is a joint responsibility for English literacy acquisition shared by parents and teachers, that a high priority should be given to the modelling of Standard Australian English, that teachers should be aware of cultural backgrounds and that Aboriginal studies should be a core component in all teacher education programmes. He also suggested explicit teaching, gradual progression along a learning path with practice and teacher modelling, exposure to a range of literacy tasks, language code switching and group work. Other programmes have been implemented at the national level to assist Indigenous student literacy (DEST, 2000).

The most recent document from Australia's peak ministerial body outlines a discussion of many of the issues raised above and lists a number of recommendations for systems and schools (MCEETYA, 2006). It suggests a need to 'accelerate the

pace of change by engaging Indigenous children and young people in learning'. To do this, the report identifies 'five domains in which engagement is critical: early childhood education, school and community educational partnerships, school leadership, quality teaching and pathways to training, employment and higher education'. The concept of engagement is discussed around the dimensions of involvement, personal attachment to teachers and classmates and application to learning. Significantly, it is stated that 'engaged learners are doers and decision-makers who develop skills in learning, participation and communication that will accompany them throughout adulthood' (p. 17). These comments mirror those of other reports, but the strong emphasis on the notion of engagement and learning is encouraging. Indigenous epistemology is not well understood in mainstream schooling in Australia and much work is required to ensure that it is given adequate consideration by schools, teacher education and professional learning programmes.

A significant national report in Australia that provides practical guidance for schools and teachers is the What Works? programme (ACSA, 2000). This report and its subsequent teaching guides reflect the outcomes from 80 Strategic Results Projects (SRPs) conducted throughout Australia. It reports that the 'learning outcomes for Indigenous students can be accelerated when educators combine commitment with high expectations and with what is generally regarded as good teaching and learning practice. It demonstrates that educational equality can be achieved in a short period of time, through hard work and the means already at our disposal.' Individual SRP summaries are included, providing considerable detail and advice. In discussing the commendable results overall, the report notes the following factors that can inform future directions:

- Goals for the education and training of Indigenous students should include for students, institutions and parents and carers action that promotes consistent attendance and engagement, supportive climate and effective instruction.
- Cultural inclusion involves the establishment of good personal relationships and trust, flexibility, high levels of involvement by Indigenous people in the management and delivery of project work, building a community of peers, recognising and teaching of Indigenous languages and cultural reference and expression.
- Focus on the development of skills that involves increasing the cultural content of curricula, increasing the intensity of teaching and recognising the central contribution of teachers.
- Increasing participation, attendance and engagement that underpin all improvement.

Approaches to Curriculum Design

Given that curriculum is a highly contested area in nation states around the world, it is little wonder that curriculum for Indigenous children remains in dispute as well. If the major purpose of schooling is to reproduce the culture, values and knowledge

that is privileged then establishing the learning conditions that are appropriate for dispossessed and disadvantaged peoples will not be of high priority. It is certainly true of course that progressive members of the education profession have struggled to implement forms of curriculum that are more democratic, equitable and innovative in character, but these are always difficult to sustain as regular features of mainstream schooling. As mentioned in other chapters, various models of curriculum for Indigenous children have been attempted from the early times of settlement including assimilation, culture studies, partnership, two-way and culture inclusiveness. Separate schools are also featured with varying success depending on the social and political conditions such as the proportion of Indigenous people in the overall nation, the strength of language usage and the political astuteness of the community. In Australia, there has never been a strong movement for separate schooling, although some separate schools have been established from time to time. The issue of cultural inclusiveness across the curriculum within mainstream schooling has become more prominent over recent years, but is still in its infancy.

As a first step to cultural inclusiveness, schools need to develop structures that enable Indigenous families, children and Elders to participate as respected equals in the learning process. Wherever we live, there will be Indigenous co-ops, health centres, education houses and local identities through which contact can be made. To see formal education as a community partnership involving all stakeholders is surely not a radical idea. In Sweden, for instance, and as described by Brophy (2001), a system of study circles has existed for over 100 years. This is seen as a form of liberal education and a means of strengthening democracy for the entire country. Swedish study circles have over two million participants each year and arrange about 200 000 cultural events annually. They follow the same tradition of the folk high school established in 1868, where programmes are decided by the people according to current interests and needs.

Indigenous peoples in Australia are also familiar with this type of organisation. In attempting to make progress on reconciliation matters, a number of learning circles were established to bring Indigenous and non-Indigenous peoples together for cross-cultural understanding. Key features again included a sharing of experience and explanation through story telling and the identification of common themes arising.

Depending on the circumstances, a learning circle exists inside other structures. For schools, there are constraints of time and regulation including the need for formal assessment. The purpose of the learning circle is, however, to go beyond such barriers and to work with other structures that are enduring, democratic and respectful. The learning circle provides a structure to enhance human agency, not to restrict it.

Academically Robust Curriculum

There is constant debate in Australia and overseas regarding the nature, purpose and structure of curriculum. This is not unusual as society and the economy changes and the expectations of schooling change. Retention rates to Year 12, for example, are

subject to policy review and update as more students regardless of socio-economic background are expected to complete secondary schooling and to move to either higher education or vocational education. Accordingly, there is deliberation as to whether or not the curriculum should consist of the academic disciplines, a selection of contemporary knowledge or focus on student interest. There is a divide between abstract and applied knowledge, with primary schools focusing on broad language development through integrated and applied activities and secondary schools tending to separate knowledge into discrete academic blocks. Currently, there is discussion regarding the appropriateness of a national curriculum for all schools in Australia and how the question of diversity can be best handled.

In considering how to arrange the work of schools within this context, the effective schools movement outlined a series of principles (for an Australian perspective see McGaw et al., 1992). These included strong administrative leadership, high expectations of student achievement, frequent evaluation of learning, an emphasis on basic skills, a safe and orderly climate and a well-trained teaching force with clear goals and outcomes. This approach has sometimes been criticised on the grounds that it is essentially an industrial model of organisations imposed on schools. That is, schools are not factories or assembly lines where a strong manager sets down the goals of the company which employees then set out to meet. The effective schools movement discusses a broad range of issues within the principles outlined above including curriculum, the role of staff, students and parents, school ethos and vision, the capacity of schools to change and improve and the location of schools within the community and systems. These items can be taken separately, or be seen within the complexity of school life, each connected to the other.

Associated with the idea of schooling effectiveness is the self-managing school concept (Caldwell, 1994, 2006; Caldwell and Spinks, 1988). Here, the school is somewhat extricated from systemic requirements and adopts the principles of strong leadership, clear goals, well-trained teachers and the like. This approach was adopted in varying ways by governments in the state of Victoria, Australia from the mid-1980s onwards and is still influential today although to a limited extent. Some commentators have argued that the transition has not gone far enough and the self-management that occurs within a framework of government regulation and devolved responsibility should proceed to self-governing where all schools operate as independent entities. A criticism of this view is that it detracts from public concepts of education for all and is based on notions of marketisation and privatisation involving student fees and fund raising by school communities. The self-managing school model has also never been able to adequately demonstrate that its organisational structure results in improved student learning outcomes. Connections may be drawn with examination results in the senior secondary years for private schools and their independent forms of operation as advocated by effective schooling. This is a complicated relationship, however, involving social capital, cultural reproduction and connections with privileged knowledge, a relationship that is subject to ongoing community and professional debate and research (Teese and Polesel, 2003).

An interesting trend in Australia has been to isolate the notion of teacher quality from the broader approach of schooling effectiveness. In some respects this

is a simplistic argument building on the hard-to-dispute yet simplistic contention that good teachers are significant for improved student outcomes. The extent of the impact of quality teaching is difficult to define especially in regards to other factors such as the socio-economic background of students and the intermixing human, cultural and economic capitals of the school. This leads to a debate that is referred to as 'within school differences' or 'between school differences'. Can the teacher overcome all the other factors that exist in a school and which are brought to the classroom by students and achieve high-quality learning outcomes by excellent teaching alone? The current framework for curriculum in Victoria (VELS, 2005) has drawn upon these ideas identifying essential learning in three strands: processes of physical, personal and social development; a selection from traditional disciplinary knowledge and a number of interdisciplinary domains such as communication and technology. The VELS framework is difficult to describe in theoretical terms as it is a mixture of activities that do not necessarily fit neatly together. As a framework, it remains the responsibility of schools to decide how they will arrange the strands, domains and dimensions provided and to this time, many schools are in transition. The rhetoric, however, continues to be firmly but uneasily based in quality teaching and therefore schooling effectiveness. It is still too early to ascertain whether any new schooling structures have emerged in public schools to support the new curriculum and whether such structures and processes have impacted on learning outcomes.

Apart from teacher quality, another specific aspect of schooling that is commented on frequently is that of educational leadership. Fullan's work is important here and his efforts at clarifying leadership characteristics and school reform initiatives over many years and in different countries have been prominent (Fullan, 2003, 2004, 2005). He has a democratic and collegial approach to the leadership question while not denying that particular people with particular roles are important. Within Australia, Sarra is a former school principal and Indigenous educator who has placed emphasis on strong leadership at the school level achieving outstanding results on attendance and other indicators. He comments that 'School is a place where you get power, where you learn how to play and win the game of life. We want to change the tide of low expectation among Indigenous students and teach these students to have high expectations. All educators should have high expectations of students whether they're Indigenous students or not' (Sarra, 2007). He advises that teachers of Indigenous children should not worry too much about their lack of knowledge regarding Indigenous issues, but rather ensure a belief that educational outcomes can be achieved, have an open mind in working with the community and be bold in setting out to achieve the results you want. These remarks begin to unpack the idea of leadership and how it works for Indigenous schools. The role of the principal is crucial not only in articulating a vision and programme for the school and community, but in working with teachers who may be inexperienced and require considerable guidance in bringing expectations into effect.

In discussing education in more remote Indigenous locations, Pearson (2004) notes the market framework of supply and demand: 'The supply-side concerns the provision of good teaching. It is not just a quantity issue about how much teaching

is available, but perhaps more importantly, the quality of that teaching. The demand-side concerns the desire for learning amongst the community, parents and students.' This is an important insight of two-way education where responsibility for outcomes falls on the organic relationship between school and community. He goes on to note that high-quality educational leadership is also required and must be able to flourish, rather than be mired in the bureaucratic jungle of forms and other requirements. Pearson argues that education should be 'exciting and culturally engaging to encourage parental and community interest', a theme that is very strong in the literature involving all children and families. This again provides a clear guide for educational leadership, showing that the good leader is not aloof from or above particular situations, but has a deep understanding of problems arising from practical experience and works diligently with colleagues in planning realistic strategies about how to proceed.

Is it possible to detail and generalise these notions of quality teaching, expectations and leadership as they might apply to Indigenous education? The answer is yes, but we must be very careful in so doing. Like all schools, there is no correct overarching answer to such matters that can be automatically implemented, but guiding principles that need to frame consideration of the specific issues and dilemmas that exist. Quality teaching that is required to achieve high expectations of learning involves taking the key ideas that are thought to be important and connecting them with the culture and interest of the child. Attempting to impose the major features of privileged knowledge whether it be atom from chemistry, equation from mathematics, energy from physics or time and sequence from history will generally confuse rather than enlighten. Working with only pencil, paper and written text will probably alienate rather than engage the young mind, especially those aligned with the globalised forms of electronic communication. Disconnecting ideas from the world of experience will make it difficult for intellectual leaps to occur. Setting the bar too high and ensuring failure to clear will not of itself enable barriers to be overcome. Educational leadership takes place within such a matrix of competing factors with new relationships between them being formed and reformed in diverse classrooms every day. What seems clear is that for all children, schools should embody a democratic and culturally inclusive life of respect and challenge, where practices are informed by internal reflection and by the external understandings of others. For children and learning, quality teaching, expectation and leadership are built collectively over time and not enforced unilaterally for immediate results.

Models of Curriculum

It has been decided by the federal government in Australia that a national curriculum should be designed. Given the vast size of the continent this has always been a difficult matter and is usually resisted by the states which have responsibility for school education. Guidelines for a national curriculum are not expected until 2010–2011, but the terms of reference specify English, Mathematics, Science and History as the first subjects to be considered. Whether or not Indigenous concerns

and concerns related to disadvantaged and marginalised children will be taken into account regarding overall curriculum design and approaches to teaching and learning remains to be seen. We do know from discussion throughout this book that central to the establishment of successful schools and educational programmes for Indigenous peoples is the recognition and respect accorded Elders, traditional owners and families of local communities. Because of this, it is inappropriate to attempt to design a national or state-based model of curriculum that is applied to all locations in exactly the same way. It is the responsibility of central authorities to provide adequate levels of funding and guidance, assistance and support materials that all communities require to meet the learning needs of children.

Developing a model of curriculum for a particular community is a difficult process that must give due attention to government and other regulation, draw upon a complete understanding of knowledge and learning and enable appropriate processes of assessment and evaluation. As discussed previously, elements of curriculum that need to be considered for Indigenous communities involve cultural inclusivity, Indigenous ways of knowing, cognitive and active engagement with knowledge production, community participation and two-way connections with the regular curriculum.

To shift the paradigm of underachievement for Indigenous children in mainstream schools particularly in the literacy and numeracy areas requires attention to be given not only to the educational framework, but to the actual day-by-day, or hour-by-hour techniques that teachers apply in all schools. Having an understanding of Indigenous epistemology and pedagogy, however, can challenge all communities, especially when learning outcomes must embrace both Indigenous and non-Indigenous formalisms such as literacy and numeracy. While teachers and parents have high expectations that their children can achieve at the highest levels, programmes need to be constructed that enable this to happen. A cultural framework within which teaching and learning occurs is necessary, such as described above for the cultural guidelines of rural schools in Alaska and it is the role of the teacher to ensure that connections are made between the understandings that all children bring to school and the outcomes that the community desires. In essence, these connections involve ideas that are abstracted from experience and ideas that are grounded in experience and involve investigation of the links that bring practice, reflection and theorising together.

An excellent example of this approach is called ethnomathematics (Ascher, 1991), considered in some countries but almost unknown in Australian schooling. It is discussed in more detail in Chapter 13. Ethnomathematics involves serious attempts are made at working with the cultural understandings of mathematics that exist in ethnic and Indigenous communities and the formal knowledge and concepts of regular schools. Working with the codes that characterise formal language, mathematics, science and other areas of school knowledge is an experiential process that is time consuming and complicated and which brings together the expectations, interests, history and language of local communities. These are the features that build a high-quality curriculum with high quality teaching locally rather than having it imposed from external sources.

Leadership

Experienced leadership is required in all schools to establish a culturally inclusive high-quality curriculum with high-quality teaching. Leadership exists at all levels including principals, teachers and community. Principals occupy a central position in that they are experienced personnel who are appointed to ensure that the learning needs of children are met and that all aspects of the school run smoothly. Being a principal is exceedingly demanding under any circumstances, but even more so when Indigenous requirements are present. Hopefully, there is community participation in the selection process and that strong and collegial links are maintained between the principal and community. A good principal does not emphasise a pyramidal or top-down structure but encourages all staff to play important roles in the life of the school regardless of experience. New teachers bring energy and enthusiasm to schools and in dealing with problems and often have a 'why not?' approach when proposals are being considered.

Schools need to be organised in such a way that democratic teams or learning circles deal with all the main issues particularly those of curriculum, assessment and evaluation. In smaller schools whether at the primary or secondary levels, it should be possible to involve all of the community in considering school programmes on a regular basis. Principals who have a non-Indigenous background need to be very sensitive to culture and local issues and ensure that the entire school is infused with the recognition and respect of the community. Depending on the state jurisdiction, it is advisable that Indigenous representatives are members of school decision-making bodies and if possible, be in the majority. The principal has a vital role in the appointment of staff and should provide leadership in the balance between Indigenous and non-Indigenous members. This is not always an easy task, given the lack of qualified Indigenous teachers around Australia and in most other countries.

Communities of Practice

Two concepts that can inform the actual setting up of the above conditions involve democratic schooling (Pearl and Knight, 1999) and communities of practice (Wenger, 1998). Pearl and Knight contend that democratic education requires that knowledge should be universally available, that students are involved in the posing and solving of social and personal problems, that students participate in all decisions that affect their lives, that clearly specified rights should be universally available and that all should be encouraged to succeed in society's legal endeavours. These are high expectations indeed of schooling and of the curriculum, but expectations that are appropriate for all children, both Indigenous and non-Indigenous. Clearly, strong and perceptive leadership will be required to achieve them. Wenger has similar aspirations for his concept of communities of practice. Based in the literature of organisational change, Wenger raises questions regarding situated learning and knowledge management. He suggests an alignment between participants and tasks so that progress can be made on innovative solutions to difficult problems. Obviously, the community of practice enables all those concerned to work together

and to be respected for the contributions they make. A consideration of these two features of organisations, that is democratic process and community of practice, locates Indigenous education in the respected literature and strengthens the notion of two-way approaches as a planning framework.

Reconciliation

Finally, a note regarding the underpinning issue of the above discussion. It seems clear that there are numerous policies, statements, reports, studies and proposals from throughout the world that provide appropriate guidance for the development of Indigenous education in regular schooling. These documents outline a democratic approach towards education and a respect for Indigenous epistemologies. For many countries, however, the adoption of such practices has been difficult and progress slow over long periods of time. Kincheloe and Steinberg (2008, p. 147) describe a pointer for this work when they suggest:

> As Indigenous peoples tell their stories and rethink their histories, it is the duty of critical multilogical historians to listen carefully and respectfully. In this process, historians from around the world can become not only better allies in the indigenous struggle against colonial subjugation, for social justice and for self-determination. In the process, they also become better historians.

The course of action for respecting subjugated knowledges then involves telling, listening and engagement whereby understandings across cultures are shared and legitimated. This can be called a process of democratic reconciliation. There is an important question therefore in the different socio-economic conditions that exist as to whether the demand for a formal process of reconciliation provides the opportunity for educational advancement or not. If so, the availability of democratic, high quality, culturally inclusive education and curriculum for all children is also necessary for reconciliation between the Indigenous and non-Indigenous peoples to occur. Some Indigenous people may be suspicious of the term ‘reconciliation’ in that they have been invaded, dispossessed and disadvantaged by European hostility and believe they have nothing to reconcile. It is non-Indigenous Australia that needs to reconcile with them because of the colonial wounds that have been inflicted. For others, the process of reconciliation offers a political and practical opportunity to make progress against racism, whiteness and domination through current generations walking together. Health and education are the two key areas of social policy that must be acted upon in this regard. The features of education and curriculum raised here have not been generally achieved thus far in Australia, indicating that the problems involved are substantial and systemic and require sophisticated rather than simplistic practical solutions. The discussion has provided some national and international background information regarding initiatives and programmes that have been tried and has raised some tentative suggestions regarding possible and realistic pathways ahead. In the post-Apartheid era, no other social question is more urgent for countries to confront if they are to be considered a civil society amongst the nations of the world.

Chapter 9
Indigenous Literacy and Epistemology

That's how we live our lives (comment by Australian Indigenous teacher education student when discussing inquiry learning).

According to results from the Programme for International Student Assessment (PISA), Australian Indigenous students on average are about two and a half years behind non-Indigenous students (Thomson and De Bortoli, 2007). In reading, mathematical and scientific literacies, it was reported that Indigenous students are about 40 percent below the OECD baseline which is interpreted as being at 'serious risk of not being able to participate adequately in the 21st century workforce, or to contribute as productive future citizens'. In a wealthy country like Australia with an admired education system, these figures and predictions are extremely disturbing and entirely unacceptable. It is difficult to claim, however, that a high-quality education system that produces such inequitable results for particular student groupings is a high-quality education system at all.

The question of literacy for Australian Indigenous children is complicated and a number of key factors must be carefully considered and indeed, critiqued. Elsewhere (see Chapter 14), it has been argued that student assessment is a highly contentious area and that merely imposing current testing regimes (national and international) on Indigenous students is fraught with many problems. This is particularly so when such regimes are usually not associated with culturally inclusive curriculum. As is discussed below, it is also necessary to take into account issues regarding Indigenous research methodologies, Indigenous ways of knowing and the nature of specific literacy programmes. There are political, educational and cultural issues regarding the aspirations of Indigenous families and the outcomes they support from the school curriculum whether in urban, regional or remote communities. What seems clear is that the cultural, historical and language context within which literacy occurs cannot be ignored for any Indigenous child and that if this does occur, the results from any testing agenda may give a very distorted picture of student progress.

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Indigenous Research

A number of problems exist in relation to the conduct of research into Indigenous education in Australia. Indigenous communities who aspire to have their children succeed in mainstream curriculum with mainstream outcomes are confronted by epistemological and ontological difficulties that the regular curriculum has either ignored, or has not been able to resolve. Indigenous communities who aspire to a more culturally inclusive understanding of knowledge and history if necessary integrated with mainstream outcomes will also have considerable difficulty in finding school locations where this occurs. Academic research that arises from a dominant culture will tend to overlook contextual features of culture and socio-political circumstance and will not only provide an inadequate and distorted account, but will be seen by Indigenous peoples as another form of oppression.

In a major study, Mellor and Corrigan (2004) have argued that Indigenous research 'is not explaining the rich and complex factors that are contributing to Indigenous students' poorer educational outcomes'. They suggest a number of limitations of the research including projects that are isolated from the broader educational discourses, a lack of connection with other disciplines such as sociology, research findings that are equivocal, incomplete or unclear and testing without context. Mellor and Corrigan point out that good studies use a mix of qualitative and quantitative methodologies to get a more detailed picture of complex situations and that a lack of this type of research should be remedied.

A recent development in Australia has been Hooley's (2007) proposal for the adoption of narrative inquiry as a democratic means of qualitative Indigenous research (see Chapter 11). According to Clandinin and Connelly (2000), 'Arguments for the development and use of narrative inquiry come out of a view of human experience in which humans, individually and socially, lead storied lives.' If this is so, then the school curriculum needs to ensure that narrative forms of knowing are included for all children along with those approaches that are more empirically oriented. Based on the writing of Clandinin and Connelly, Hooley has developed a systematic four-dimensional approach towards narrative curriculum. As Rigney (2006, p. 42) points out, we hope that narrative can support the project of Indigenist research 'to chart our own political and social agendas for liberation from the colonial domination of research and society'. The methodology involves students in cycles of looking backwards and looking forwards, looking inwards and looking outwards, thinking about the conventions and ideas we have at present and how we might go about changing current circumstances to take our understanding forward.

A key aspect of Indigenous research is that of oral history. Accepting the oral traditions of Indigenous peoples may be difficult for some researchers and therefore the inclusion of voice and story in research projects may often be overlooked. Attwood (2005) and Clendinnen (2006) have both discussed oral history in terms of its interpretation and incorporation into research. These questions of knowledge demonstrate the problems that afflict testing regimes within schools and the inaccuracy of results if they are not taken into account. The question of whether Indigenous peoples in settler societies wish to live together within two worlds and resist cultural

assimilation, or find strategies whereby communities remain time-honoured and customary, is a problem for formal education that runs throughout this book.

In some respects, it is understandable that there are major deficiencies regarding Indigenous research, given that the question of research itself is a highly contested area. Qualitative research is still not recognised as a legitimate form of research in some quarters and within qualitative research different methodologies are still being developed (Denzin and Lincoln, 2004). Conversely, in the continuing debate regarding the No Child Left Behind legislation in the United States including the Reading First programme (United States, 2008). Cummins (2007) has strongly argued that 'The research reviewed in the National Reading Panel (NRP) report provides no empirical support for the imposition of scripted reading curricula on schools serving low-income students. The research studies cited by the NRP as supporting systematic and explicit phonics instruction show no consistency in the way that construct is operationalised. Thus the construct is devoid of theoretical coherence and empirical substance.' The NRP was a key source for the Australian report on reading (DEST, 2005) that also emphasised a stronger reliance on phonics and direct instruction. As this shows, academic research regarding human knowledge is laden with disputation and competition between two epistemological and value positions. In particular, literacy and numeracy find themselves caught within a vigorous political and educational debate about schooling that Dewey (1963) over 100 years ago characterised as 'traditional and progressive'.

Indigenous Ways of Knowing

Indigenous knowledge that is shared and community-based rather than individual and competitive poses a number of intricate issues for non-Indigenous law, science and educational practices. This is sometimes seen as a problem to be solved, rather than possibility for democratic engagement. As commented on previously, Indigenous communities around the world have regularly reported a small set of principles by which they see learning and knowledge occurring. Confirmed by a recent Australian study (Hughes et al., 2004), these include learning from the land, proceeding from community interest, the respectful participation of Elders, holistic connections between knowledge, forms of observation and practical inquiry, longer time spans and the place of culture involving language, ceremony and communication.

The fact that the regular curriculum in Australia and elsewhere has found it incredibly difficult to incorporate and work with these principles indicates either a lack of epistemological sophistication, or the continuing influence of prejudice and bias regarding diversity. What is striking, however, when reading the literature is the close correspondence between Indigenous ways of knowing and the approaches of integrated inquiry learning outlined by pragmatic philosophers. Australian education has struggled to implement a truly integrated and inquiry curriculum and still maintains a system that is heavily determined by behaviourism. This may be due to

the strong cultural yet essentially unexamined and uncritiqued framework that has grown up around a particular subject, as with school mathematics, or the power relations that are maintained by privileged forms of knowledge through strict regimes of assessment. These features of culture and power that govern curriculum design and pedagogical practice make it extremely difficult for Indigenous considerations to be heard, let alone impact substantially on daily classroom life.

Literacy and Learning Outcomes

As the discussion thus far has indicated, research and assessment, learning generally and literacy and numeracy learning in particular are complicated and contested areas around the world (Snyder, 2008). There may well be cultural incongruence between formal education programmes and the history, practices and understandings of communities. Testing programmes, for example, have long been criticised for concentrating on what can be 'measured' empirically at a particular time instead of the emerging knowledge, insights and apprehensions of the child over time. In diverse communities, what is considered 'common' and therefore available for measurement is changing and often disputed. It was only in the 1950s that the place of science in the curriculum as compared with the humanities was still being decided. More recently, the role of new technologies across the curriculum has needed to be considered. Whether or not the use of slang and abbreviations in text messaging by children will influence formal literacy in schools remains to be seen. A significant report, however, conducted in Australia for the state of New South Wales Minister for Education canvassed a wide range of issues regarding Indigenous education and identified the following strategies as having potential to improve the learning of Indigenous students (NSW, 2004, p. 76):

- Talking and listening activities, especially in kindergarten to build on home language.
- Literacy and numeracy workshops for parents supported by local Aboriginal Education Consultative Groups.
- Professional development for teachers regarding Aboriginal English, language development and Aboriginal learning.
- Strategies that enable Aboriginal students to hear, understand and engage in classrooms and to be able to code switch between Aboriginal English (AE, home language) and Standard Australian English (SAE, school language).
- Specific support for literacy and numeracy in both AE and SAE.
- Culturally inclusive texts.
- Mainstream programmes that incorporate the needs of Aboriginal students.
- Academic research and mentors regarding quality teaching.

To act on all of these recommendations at once is a difficult task for schools and to be successful will require whole school approaches over time. Various literacy

strategies have been supported by the federal government in Australia over a period of years (Literacy, 2000). As the NSW report suggests, the Scaffolding Literacy programme offers promise in accelerating literacy skills. It appears to be especially appropriate for those who have failed to make appropriate literacy gains and who may be falling behind classmates (Creswell et al. 2002). Teachers involved with the programme comment that major features include age-appropriate texts, professional development and the applicability of the programme across stages and key learning areas of the curriculum.

As mentioned previously any discussion of literacy in Australia must note the most recent report (DEST, 2005) that has been both strongly supported and criticised. Release of this report continued the national debate regarding whether literacy is best taught through an emphasis on phonics and phonemic awareness, or through an emphasis on experience including whole language. This debate has been vigorous around the world for many years and has included the contentious No Child Left Behind Legislation (NCLB, 2002) of the United States. The debate concerns whether or not humans learn language through direct instruction of letter-sound correlations as their first encounter with literacy, or whether such coding is incorporated into the child's general experience when needed. Whole language advocates support the latter approach and argue that culture, context and experience are necessary for comprehension, as distinct from a prior knowledge of other components of language such as grammar, syntax and spelling. This debate is highly significant for Indigenous children if one method or the other of teaching reading and literacy is imposed by the dominant society without a balanced view of all the factors at play being adopted.

In an extensive report regarding the literacy and numeracy learning of Indigenous children in the early years, Hughes (ACER, 2003, p. iv) raises the question of the development of assessment tools that do not disadvantage Indigenous children. He describes a test item that asks the child to explain the logo on a carton of milk and comments: 'Who has the cultural advantage here – the student whose father has a strong interest in basketball, season tickets to the game and drinks fresh milk from the cool room at the supermarket – or the student who lives in a small community in the country, follows the local football team and who drinks generic long-life milk bought in a box?' This is only one cultural problem of literacy and numeracy testing that in the mainstream curriculum draws almost exclusively on dominant life styles rather than a diversity of experience.

Although concerned with the early years, Hughes raises many issues that can be related to Indigenous education generally. Factors that the report found as being statistically associated with achievement included the role of the school, differences between metropolitan, regional and remote locations, language background including the speaking of Standard Australian English at home, school attendance and student attentiveness. A list of necessary learning contexts was also included such as cultural diversity and inclusivity, the provision of literacy and numeracy programmes and school–community partnerships. Some of the key factors that were seen to be important in enabling student success were the style of leadership, attendance and engagement of students, good teaching and an Indigenous presence in

the school. An important finding of the study was that the pre-school years provide the foundation for future learning and student skills at the start of school shape their subsequent learning in powerful ways.

A federal discussion paper (MCEETYA, 2001, p. 34) also noted that literacy skills in Standard Australian English are central to success in formal education for all ages and subjects. The report emphasised again that Indigenous students are often confronted with literacy and numeracy activities that assume culturally embedded understandings and that assessment regimes that follow a similar pattern can produce less than adequate or accurate results. Particular mention was made of mathematical concepts such as space, time, number and measurement that may be considered in a more abstract and cultural manner in schools and topics like chance and data and algebra may alienate Indigenous students for similar reasons. The report indicated that many educators may also have low expectations of Indigenous learning and that this can become a self-fulfilling prophesy. This problem can arise specifically if Indigenous children do not read, write or use mathematics for personal enjoyment, but see these activities as compulsory and imposed by the school.

A number of literacy and other projects have been developed and enacted throughout Australia to assist Indigenous children. A programme called Multilit (2008) developed at Macquarie University, Sydney, emphasises phonics and word attack skills as well as one-to-one book reading. It is designed primarily for children of about 7 years of age but can be used for older age groups as well. The Yachad Accelerated Learning Project (Ma Rhea, 2004) is working with an Israeli approach in Indigenous communities in Australia involving Western Australia, Queensland and Victoria. It is hoped that the federally funded project will have a beneficial impact on local communities generally, as well as assist those students who are making less progress than intended within the regular curriculum. Initially, the programme can focus on information intake and the efficient storing and recall of knowledge, progressing to the acquisition of broader learning skills. The Northern Territory in Australia is also focusing on a National Accelerated Literacy Programme (NALP), as the first national project of its kind, is being rolled out over a period of 4 years. Through NALP, the Northern Territory is developing a methodology for English literacy teaching, with extensive teaching notes and resources, to be made available Australia-wide. The project takes the basic pilot concept right through to schools across the NT. The Accelerated Literacy programme will be delivered to 10,000 students at 100 schools across the NT by the end of 2008. It will involve training 700 NT teachers and will provide them with ongoing professional support. Particular focus will be given to Indigenous students in remote schools. What appears to be distinctive about these programmes is their lack of attention to a cultural context for all children Indigenous or otherwise and the lack of an experiential base for all learning. They appear to emphasise instruction in the structure and formalisms of language rather than construction of meaning through experience with it.

Amongst other issues, the concept of bilingual education for Indigenous children in the Northern Territory was reviewed by Collins (1999) and strongly supported. Since that time, the policy has undergone major changes with the current

government committed to strengthening the practice across schools as it exists. Bilingual education is sometimes confused with two-way learning which is a broader concept than involving language alone. It is significant that the Collins review preferred the term two-way learning in relation to language because it brought together and respected both formal and vernacular speech and communication. It was also stated that a 'one size fits all' approach to two-way learning is inappropriate with different communities needing more flexible approaches. The review found that improved speaking and literacy development was a key concern for Indigenous parents, students and community members. There was also comment from older Indigenous people that the literacy level of the current generation was less than their parents.

Rose and others at the Koori Centre, University of Sydney have worked on a long-term action research programme with school and university programmes across Australia and internationally. Strategies have been developed for teaching reading and writing at all educational levels, particularly with Indigenous learners (Rose et al., 2004). At the Koori Centre, these strategies are known as scaffolding academic literacy and are currently being implemented by staff in the Diploma and Tertiary Preparation courses. Scaffolding is a technique used in teaching generally and with literacy in particular whereby key ideas and information are made available to learners as a framework within which they build and experiment with new ideas and concepts.

Questions of multiliteracy (Yelland, 2006) and the place of information and communication technologies (Christie, 2005) must also be considered in regards to literacy for Indigenous children. These issues show that notions of culture and literacy are changing in the broader community and that this will impact on Indigenous practices as well. The use of computer-based technologies in relation to music improvisation, composition and performance, graphics and design, Internet searches, text messaging, video and digital film creation and application all demonstrate that Indigenous and non-Indigenous culture is dynamic and that static representations are not necessarily accurate or appropriate. These developments have important ramifications for notions of teaching, learning, curriculum and assessment.

This discussion is not intended to deny that there are major and difficult problems concerning the literacy of Indigenous children in Australia. Or to offer excuses for a lack of more substantial progress. What it has attempted to do is outline some of the issues that must be confronted if an accurate analysis of Indigenous literacy is to be obtained and appropriate strategies for improvement built thereon. A respectful, critical and culturally inclusive approach must be established regarding Indigenous research, knowledge, assessment and literacy. This framework must be constructed from an Indigenous perspective that enables links to be made across cultures in a two-way inquiry fashion, so that the essence of key ideas and meaning can be connected and explored and new practices entertained. Local communities must be involved in this process so that the culture, history and language of Indigenous life is recognised and finds its rightful place in the regular school curriculum, in all subjects. Most importantly, the significance of country for knowledge and

learning cannot be overestimated in the urban, regional and remote areas. In the words of Uncle Banjo Clarke (Chance, 2003, p. 244) when describing his travels as a young Aboriginal man in Victoria, 'I tended to move in a circle because my forest homeland was calling and pulling me back so hard. You always come back to your homeland. You always come back.'

Background to Literacy: Knowledge and Research

All humans produce their own original, personal knowledge. To be moral, to learn and to interact with the environment, is to be human. This is not an academic process governed by neat and predetermined procedure and ethics, but emerges from a messy daily practice as humans confront situations, ideas and options as best they can. Producing and researching knowledge is both philosophical and political rather than neutral and it requires that all participants expose their world views and most deeply held values and beliefs. A research team whether formal or informal in negotiating and designing its methodology needs to establish a consensual baseline regarding where knowledge comes from and how knowledge is constructed and validated. Central to this process is the relationship between practice and theory and how new ideas are created. If practice and theory are considered as one, a unity under all circumstances, then the significance and imperatives of the research and the driving force of all knowing have been exposed.

Both practice, theory and theorising have an actuality and universality, with one embedded in the other, making them impossible to separate. It is, however, possible to untangle the ideas that motivate practice as humans move from a more perceptual and unsystematic knowing, to a more conceptual and systematic understanding. It probably means that humans move in and out of different modes of intelligibility throughout the day, in an effort to make sense of situations and to seek guidance for practice. As one paradigm for action is constructed it is validated in social action and modified for future use. What appears scientific and objective in one situation becomes intuitive and subjective in another.

For formal research and education systems at all levels, the problem becomes one not so much of imposing an inappropriate and external theory, or to try and bridge a perceived gap between theory and practice, but how to encourage all participants to reflect on life and to construct tentative ideas and personal theories that come from and are a part of the diverse contextual environment where learning occurs. If this does not happen, the learner is alienated and excluded from the production of knowledge and subsequent informed action. Some knowledge does arise in a scientific sense from a process of experiment and analysis, but the vast bulk of human knowledge arises from community experience and reflection on events as they accumulate throughout the decades. This is the basis of cultural knowing, tradition and social consciousness.

Identifying our understanding of practice and what it means to learn practically, gives more focus to the notion of 'practice into theory and return' as a cyclical rather

than linear process and more detail to the conduct of research. An integrated process of cognition depends on the relationship adopted between theory and practice; the two can be seen as quite distinct, or totally unified. Perceptual knowledge tends to concentrate on more localised and more immediate aspects of events, whereas conceptual knowledge tends to highlight the more general and more universal essence of events. Transforming perceptual knowledge into conceptual understanding does not occur of its own volition but requires an explicit effort from participants particularly as a collective. Practitioner research heads in this latter direction.

Community and Practitioner Research

Denzin and Lincoln (2008a, p. ix) lay down a powerful challenge when they declare that it is time for non-Indigenous scholars 'to dismantle, deconstruct and decolonise Western epistemologies from within, to learn that research does not have to be a dirty word, to learn that research is always already moral and political. It is time to chart a new decade, the Decade of Critical Indigenous Inquiry'. What this requires is an investigation of the connections that exist between Indigenous and non-Indigenous epistemologies, research and knowledge so that Indigenous interests can be pursued. In accepting the advice of Denzin and Lincoln and on the basis that research is conducted to emancipate and to contribute to justice and reconciliation, rather than to merely describe and inform, then it can be argued that the research regime needs to be undertaken within a critical, emancipatory and participatory action research (Carr and Kemmis, 1986) framework (see below). All such terms and practices are strongly contested and interpreted differently and need to be closely defined. The broad notion of action research that is based upon active participation by the community it serves and is dedicated to improvement in practice and understanding meets the needs of practitioners becoming more productive, reflective and agents of change. More conservative and essentially empirical approaches to research do not have such ends in mind.

Research of this type can proceed for both social and educational ends and reveal findings of importance for local communities. For the Indigenous population of Australia and elsewhere, this is of particular importance, given that research is often conducted 'on' rather than 'with' communities and where partnerships can be established and the production of knowledge with its attendant representations, interpretations and theories can proceed in a genuine atmosphere of respectful enquiry. In this regard, Scougall (1997, p. 55) reports an appropriate 'adoption of a naturalistic approach to information collection grounded in the community's everyday reality of listening, talking, participating and observing' when working on programme evaluation with Indigenous people.

The question of practitioners only being interested in a narrow 'trustworthy' or 'what works' knowledge and academics only being concerned with broad 'generalised' principles or 'valid' knowledge may be consistent with a socially constructed practice, but amounts to the wrong question. All educational practitioners are

interested in both forms of knowledge and in practice, integrate both at all times to one extent or another. The issue becomes one of developing a practical understanding of experience by inquiry, reflection and theorising, not by separating practice and theory, not by cleaving a 'low culture' disregarded form of knowledge from a 'high culture' privileged form of knowledge. For an Indigenous and non-Indigenous community working together on projects of various types, this is a most complicated process and requires the generation of an agreed protocol to guide research projects. Such a draft protocol is outlined below:

1. Community. That a programme of community research will be conducted by the community in the interests of the community.
2. Ownership. That the design, implementation and evaluation of research must be undertaken by the community through informed consent with the material and intellectual outcomes remaining the property of the community.
3. Consciousness. That community research will enable questions, issues and knowledge to be pursued and at the same time, enable each participant to reflect upon their own values, practices, history, identity and land and kin relationships.
4. Culture. That knowledge is located in the culture of researchers demanding that research methodologies are non-hegemonic, explicit and culturally inclusive.
5. Readiness. That research and knowledge production should be unhurried, humble and patient and be respectful of the manner in which knowledge is socially transferred and constructed within communities.
6. Ethics. That an ethical framework for research should outline the rights and responsibilities of all participants, the nature of the interactions between them and the manner by which the research principles will be met.
7. Participation. That when conducting community research, all participants will be considered as equal and will be encouraged to participate fully in all aspects of the agreed work.
8. Narrative. That the research programme should become a part of the narrative of the local community providing data and experience to enhance cultural life.
9. Critical Friend. That community research will enable critical friends to participate fully in the programme to assist with background knowledge, experience and advice regarding the issues under investigation and the nature of the research process itself.
10. Validation. That data, explanation, general findings and theoretical ideas emerging from community research will be validated by reference to other groups, community learning circles and communities in ongoing cycles of democratic investigation and reflection.

A protocol such as this for Indigenous research is fundamentally different to that of normal scientific research and extends past the usual ideology of consent that seems to dominate ethics procedures in formal programmes. It recognises the significance of key political issues such as morality, identity, community and consciousness that cannot be ignored. It highlights the practical outcomes of research particularly for community change and suggests that any problems associated with

power, bias and influence can be overcome through having longer time lines that enable the discourses, ideas and generalisations that accrue to be investigated through many cycles, indeed unending cycles. A communicative rather than instrumental reason is supported, such that emerging knowledge and understanding is considered by consensus and is not imposed by so-called experts. Research of this type is not separated from life, but becomes a part of life, for all participants.

Participatory Action Research

Like all social and political structures of human life, research and educational research is a deeply conflicted and ideological component of society. As such, it demonstrates the dualities and contradictions of desire and reason, reproduction and transformation, repression and emancipation. While it is possible to view educational research as a disinterested and neutral voice in the discourse of social science, such an approach will generally yield findings of a similar and therefore disconnected character to the issues at hand. As Habermas (1984) has pointed out, so-called value-free knowledge only serves to obscure human interest.

Participatory action research offers at least potentially more than self-reflective practice and draws on the notion developed by Aronowitz and Giroux (1994) of the 'transformative intellectual'. The process of transformation described here involves not only the intention to change practices and situations, but to become critical agents in a broad social project that is dedicated to the reconstruction of a community that is rational and coherent and seeks to provide personal and community satisfaction to a greater extent than was present before. For this to occur in education, for example, the researchers must become critical friends to the project and become full participants working alongside parents, teachers and students as democratic colleagues. This approach seems to be congruent with the perspective of Indigenous peoples. It can be shown diagrammatically as in Fig. 9.1 below:

The main features of this draft model are discussed below and include the identification of a political perspective held by participants, the development of a narrative phase that draws upon the total writing and other materials produced by the research group, the formation of two critical analysis groups, Indigenous and non-Indigenous (which can be combined if agreed) with the expressed intention of submitting data and ideas to scrutiny and the recycling of themes and discourses through practice as they are refined and redrafted. It is hoped that many such cycles are engaged over time. There is also the expectation that outsiders such as academics can act as critical friends in a non-coercive and non-dominant way, a possibility that is considered remote and unrealistic by some. Particular attention must be paid to the issue of practitioner 'voice' which is the concern of feminist and Indigenous writers such as Gilligan (1982) in her early writing. If, however, the intention of the research is the creation of a better society and, as Lather (1991, p. 12) suggests 'to generate new ways of knowing that interrupt power imbalances' the role of the critical friend as a contesting colleague is a central feature of democratic participation. A model

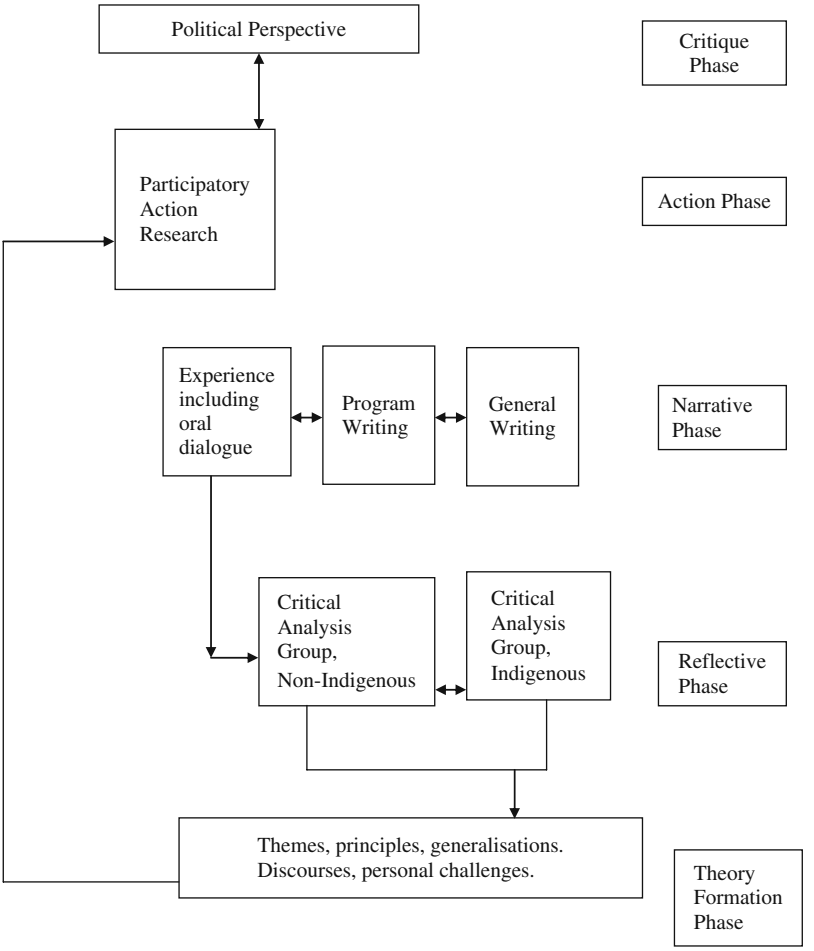


Fig. 9.1 Process for participatory action research

such as this is necessary if traditional forms of research are not to be imposed on Indigenous communities to reproduce existing power relationships and to result in a research agenda that does not reflect the lived and working lives of practitioners and their interests.

In discussing the research differences between what he calls 'data extraction agreement, clinical partnership and co-learning agreement', the third of which is described in terms very close to that of participatory action research, Wagner (1997, p. 20) notes that 'because of the kinds of communication they require and stimulate, all forms of co-operative educational research have the potential to alter the social life of individuals and institutions'. While this is true, it is not the case that all forms explicitly seek to impact upon the broader social condition and the values and aspirations of the researchers themselves for truth and justice.

Dealing with Pragmatics

The question of implementing a critical, participatory and practitioner approach to knowing that incorporates the above features and perspectives is not an easy matter especially if the community concerned is undertaking such work for the first time. Most formal research is not conducted this way and many obstacles need to be overcome to lean in this direction. Practitioner research needs to begin with a broad framework of understanding and methodologies to be developed over time as projects unfold. Action research enables new ideas and directions to spin off from that initially envisaged with progress made being quite differently to what the researchers originally had in mind. Academic research often seeks a more linear path with more certain outcomes.

The staged process suggested below may assist arrangements for community research that is intended to critique and transform reality for rationality and justice:

- Establishment of a participatory research team usually involves a small group of practitioners with similar interests who are willing to become involved in a systematic inquiry of an issue over an extended time. Initial discussions can include consideration of political viewpoints and world views and a clarification of the reasons for the work. There needs to be broad agreement as to the way knowledge is generated and how ideas are grounded and challenged. At this stage, the operation of the group should also be examined to ensure that the discourse to come, particularly when difficult issues arise, will be democratic, rigorous and continuing. The question of personal disclosure is of central importance.
- Drafting of the research proposal will need to take into account the issues of resources and coordination, but of most significance is the ideological direction of the work as expressed in the questions to be pursued, the methodology adopted and how the project is connected with socio-economic parameters. A research perspective is required such as that of critical theory, feminist, positivist and the like so that an appropriate method can be decided. Data collection and strategies for interpretation, analysis and generalisation also reflect political outlook and the fundamental interests for which the research is being conducted. Ensuring democratic discourse and communication throughout requires constant vigilance.
- Short turn-around times or cycles should occur, rather than those that are prolonged and mean that the thinking of participants has moved on before it can be considered or even recognised by the group. This is common in the working environment where issues have to be sorted out quickly as they arise, thus influencing thought and action to some extent every day. This approach does not suggest that periods of extended reflection and theorising cannot occur along the way; indeed this is a necessary condition. As new practice and experience becomes available, it needs to be consolidated, tempered with external factors and contribute to new immediate cycles. All participants including critical friends are involved in this process of moving from perceptual to conceptual knowledge and then return to new situations as the main feature of birthing new knowledge and tentative understandings.

- Personal theorising takes place on a regular basis as well, as humans attempt to make sense of their situations, local and global. The process of theorising will result in many incomplete views being formed and even those views that take a stronger form will be subject to change throughout the project and life. All citizens will have a set of ideas that constitute an ideology, theories that govern their practice and theories that impact upon how they interact with society. These are issues that should be transparent from the beginning of the work and should be discussed as the work encourages change. A process of transformative consciousness takes place for the researchers as their experience causes new thinking at deeper levels. Different aspects of different contradictions contend for influence and this will be resolved for a time until the process is restimulated and continues. Personal and general theories are brought into play, one merging into the other until new cognitive structures are created.
- The exposure of changed thinking by researchers can be revealed throughout the process and certainly at the formal conclusion of the research. This would be seen as an additional task in academic research but an essential component of participatory research. Public dialogue and writing are important strategies in allowing this to occur and in the contestation of ideas. Groups may be a little reluctant to expose incomplete thinking, but this fits nicely with the concept of generating practitioner knowledge. It could also be expected that many groups unfamiliar with an action research approach to understanding and theorising will be doubtful of the process and will raise issues of rigour, quality and validation. Practitioner research is in many ways more complicated than academic work given that it deliberately confronts a complex net of social and educational factors that are seen to interact constantly and which exist within a political and cultural gel. It is the very explication of such an arrangement that leads to quality rather than the simplistic measurement of isolated knowledge indicators.
- Systematic intervention in the process of discourse and principle formation is essential if new thinking is to be observed. This is usually done via a critical friend or a small group of trusted colleagues who meet regularly to discuss the research and to challenge views that are partially developed. A ‘critical analysis group’ that meets every month or two sets up avenues for reflection that may not be otherwise present and has a deliberate process of ensuring that ideas are defensible for passage to the next phase. This step is crucial for Indigenous groups so that a cultural viewpoint can be brought to bear at key points and prevent assimilationist tendencies. The analysis can proceed with a mixed group of Indigenous and non-Indigenous people, or each alone depending on the project being undertaken. If the latter, then linkages will need to be made between the different packages of advice. The specific role of critical friends is not clearly documented in the literature, particularly as the stimulus of new thinking, of new fundamental thinking. It must involve a combination of democratic suggestion and a capacity to move beyond current understandings. Practitioner research is not practitioner research without a rigorous critical friend capacity.
- The issue of critique in terms of critical theory does not mean attention is only directed at the structures, organisation and policies of an institution, but is

broadened to include critique of the socio-economic and cultural environment within which the project is located. While an action research study of improving mathematics at the Grade III level is important, for example, the critical theorist will attempt to see the teaching of school mathematics within a historical and ideological context, recognising that schools reproduce the norms of society and that these may be substantially changed for mathematical learning. This is much more than a resource question, but one of how society understands mathematics and how humans come to think mathematically. A society based on a strict stratification and status will approach these intellectual questions differently to a society that integrates knowledge and practices across social groupings in more democratic formats. This means that the division of knowledge into privileged segments is a non-neutral act by those who control knowledge and who can manipulate it for specific interest. Critique needs to take up these questions in research work, all research work, as an emancipatory project.

Validating Practitioner Research

The validity of truth claims no matter how tentative or transient concerns the search for agreement amongst participants that such claims are generally in accord with the social circumstances from which they have emerged. While these claims are initially contextually bound and arise from either constructivist or scientific realist traditions, they remain of little significance if they cannot be generalised across different situations for change and improvement. This is not to disavow local knowledge, but rather to suggest that its true impact should be scrutinised for more general application. In discussing the notion of 'socially recognisable evidence', Ladwig (1994, p. 93) notes that generalisability may not always be of central interest for educators, but 'when what is at stake is the general transformation of social structures, questions of what is generally the case must be addressed in some way'.

A process of validation needs to be based on and support the concept of knowledge production that is being employed by a research project. In summarising the work of Habermas and others, Terry (1997) identifies the areas of analytical-empirical, hermeneutic-historical and critical-emancipatory. Educational research can be categorised in this way as well, with distinctive techniques applying to each. The analytical-empirical method is conservative in orientation and relies on experiment and data gathering confined within narrow boundaries. Hermeneutic-historical techniques demand more interactive and discursive methods, are broader in outlook and have a more open, collaborative view of knowledge. Critical-emancipatory procedures rely on the democratic participation of all researchers, knowledge is held as problematic and research outcomes specifically target social and personal change.

In each of the three epistemologies noted above, a different approach to validation will be required. For example, internal empirical validation will rest on the repeating of experiment and the checking of specific data; truth is seen to reside in data. Techniques that emphasise interpretation will engage in ongoing discussion

of data and possible findings. Critical research will establish external participation and action where major ideas, values and proposals are subject to contestation and critique. In this latter view, knowledge is considered a social construct, constantly being refined and challenged. Anderson and Herr (1999) in raising the question of practitioner research, outline a number of specific examples for undertaking the validation process such as outcome, process, democratic, local, catalytic and dialogic. All of these can be located within the three broad categories so noted, although the very short time frames that characterise educational research, make a number of these difficult to implement.

If educational work and research can be considered as a critical social science and is therefore devoted to furthering Enlightenment principles of emancipation and truth, then according to Fay (1987) citizens are concerned with the pursuit of rational self-clarity and collective autonomy. Such an approach will rest on critical projects in all realms of human life and attempt to suggest generalised understandings accessible to others. In a broad-ranging discussion of similar issues including the struggle for knowledge within the changing social and political circumstances of modernity, Popkewitz (1997, p. 26) states that 'Intellectual movements do not stand apart from social, political and demographic changes, but instead, both respond to and are a part of the changes presently taking place.' Inclusive and participatory critical networks of researchers engaged in catalytic techniques of validation accommodate this reality. Relative autonomy to pursue locally determined political and professional outcomes supports Indigenous and non-Indigenous aspiration of dignity, responsibility and ultimately, emancipation.

Indigenous Knowledge and Scholarship

This discussion has attempted to draw links between Indigenous and non-Indigenous epistemologies, knowledge and learning. In particular, it has attempted to show that a critical and participatory approach to research that is recognised in the literature can also be applied to language and literacy. Models of participatory inquiry in the broad sense can also guide literacy in classrooms. However, there can also be a huge cultural clash between the way that Indigenous peoples go about their lives for meaning and survival and the way that European institutions view knowledge and are organised. Generally speaking, Indigenous people are supportive of the holistic, integrated practice of learning where great respect is paid to the cultural background and needs of family and community, connections with the land and the consciousness of reality so formed, building on experience and the place of Elders in providing advice and guidance. Knowledge generated via a process of this type is seen as legitimate and valid and is often communicated orally, or by artefact and ceremony and can be stored in 'keeping places' (Australian Indigenous museums often at the local level), rather than in written text. The way in which the European legal system dismisses Indigenous knowledge in native title claims, for example, means that the notion of validity is very real for both cultures. Because

Indigenous people are also strong opponents of racism, there is a vested interest in developing an accurate social critique of western society, including the contradiction between socialist and capitalist ideas. In this respect, critical theory, participatory action research, communicative reason and enquiry learning are extremely apt. Protocols of community research as suggested above must be negotiated with each Indigenous community, drawing on the recognised base of literature that already exists.

As one instance, it is extremely difficult for western knowledge to come to grips with the incorporation of Indigenous scientific knowledge regarding the land. Indigenous knowledge as interpreted in the famous work by Elkin (1938) consists of a network of linkages and relationships:

> Nature is to the Aborigines a system in which natural species and phenomena are related, or associated, in space and time. The appearance of one object for example a star, a bird or flower, or insect has become through observation down the centuries, the sign that rain is coming, that fish are running, that some particular animal or reptile will soon be plentiful, that yams and ground nuts are ready for digging, or that certain wild fruits are ripe.

These are profound issues. Knowledge of this type cannot be ignored or its implications underestimated. If knowledge and understanding rests upon participation with linkages and connections that interlace all aspects of life, then a segmented approach to learning or to life, will assuredly fail. A way of proceeding in formal institutions may be around the ongoing investigation of integrated projects based on student interest and negotiated through a 'rich task' or 'project brief' arrangement. This enables participants to begin their studies from their own knowledge base and to incorporate other ideas facilitated by 'outsider' input. This approach should reverse the usual knowledge flow from expert to novice and respect the personal and community practice, cultural background and understandings of learners. Cultural assimilation is combated in this way.

Within this intellectual framework, the question of community scholarship must now be considered. In the European tradition, a scholar is well read both in their own field of study and across a number of fields, engages in creative work, communicates ideas in writing and speech, has a broad interest in discipline, cultural and socio-political affairs and plays a key public role in representing the views of the community. A scholar is not necessarily neutral and may take a definite political position on issues, has concern for humanity and the healthiness and well-being of the human condition. The scholar should not be bunkered down in a narrow field of scrutiny, never seeing the light of day, or how the work connects, contests and informs other areas of human endeavour. For Indigenous people including those who live in urban, regional and remote areas of first, second and third world countries, there is a need to nurture their own scholars who adopt a specific Indigenous perspective to work in the interests of their people.

The European features of scholarship are common to Indigenous life, although they may be pursued and expressed differently. In this context according to Wastasecoot and Sellers (2001), the place of elders is vital:

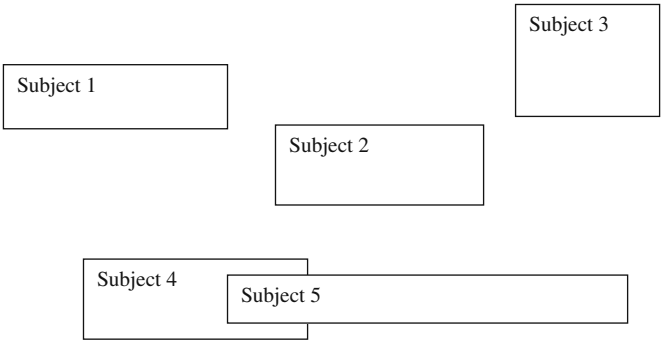
> It is from the Elders – in the classroom, field and in ceremonies – that students learn the value and necessity of traditional ways and knowledge in ensuring Mother Earth's health and renewal. From the Elders, students learn and understand that Indigenous knowledge is spiritually and culturally based and a dynamic process of coming to knowing and understanding.

The role of the Elder in knowledge production may be similar to that of the critical friend in democratic practitioner research. Both are seen as people of experience if not wisdom, with a knowledge of culture and history that supports community interest. They are able to link global and local issues and provide timely advice. This issue does demonstrate however one of the great distinctions between Indigenous and non-Indigenous learning systems, where the former depends on strong yet informal community links and networks, whereas the latter does not. European institutions will generally pay little attention to close connections with the land as well, whereas a severing of such connections for Indigenous communities makes profound learning almost impossible. Such matters bring into stark relief the intractability of seeing practice and theory as a unity when schooling is not a cultural endeavour, when important knowledge is broken into disconnected portions and when humans are seen to be capable in some areas and not in others.

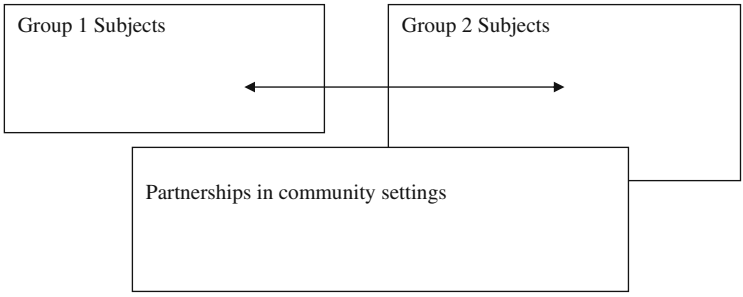
Practitioner and community research is also generally given to moments of inspiration, the preposterous and laughable idea that is rejected by colleagues, the creative connection between entirely different concepts and fields, the subconscious breakthrough after years of careful research, the pursuit of a problem as an act of love and commitment. Such events in this patchwork schema that are unplanned and spontaneous, may constitute not only the essence of scientific work, but of all thinking, in all areas. They therefore provide an intellectual and conceptual bridge between the sciences and humanities, the formal and informal, the ontological and epistemological and between different cultures, histories and experiences. Various models can be used to theorise issues of this type for a more harmonious approach to learning that is in accord with Indigenous knowing:

It is not the place of non-Indigenous people to pontificate on the production of knowledge within Indigenous society. Where different people from different cultural backgrounds work together however such as in a research or partnership

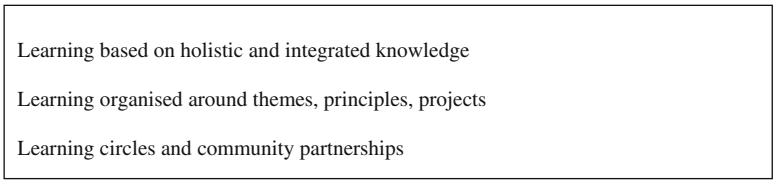
Model 1: Marginal integration



Model 2: Extended integration



Model 3: Total integration



programme, some observation and democratic advice may be appropriate. In practice, it may be possible to establish joint research teams to take up issues of mutual concern and to follow agreed democratic procedures and protocols. Community research does not involve research on communities from external bodies, but research with communities where all aspects of the work are negotiated and all participants are seen as being equal. Knowledge emerges from ongoing investigation of community practice and reflection on experience, with ideas being subject to constant validation in practice as they are refined or rejected. A two-way respect for culture, local knowledge and community scholarship means that each is challenged and tentative as experience and data are collected and that critical reflection on practice can generate many ideas on a daily basis. One culture does not dominate the other. Constructing education programmes that embody these principles within the dominating culture, however, is a mammoth task.

Linking Epistemologies and Literacy

Around the world, most countries would agree that education systems are concerned with issues of citizenship and personal learning with literacy being of central importance. For Indigenous peoples living in settler societies this means that 'literacy as a democratic right' will generate a range of difficult decisions. Compromises must be made regarding how to become proficient in the dominant language while at

the same time maintaining cultural integrity. A strong local community is required so that cultural traditions and customs can be continued and be accessible to the young. Nakata (2007, p. 214) has proposed 'Indigenous Standpoint Theory' as a means of conceptualising this process such that 'It is a distinct form of analysis and is itself both a discursive construction and an intellectual device to persuade others.' This enables a dialogue to be conducted with non-Indigenous colleagues from a position of evidence and mutual understanding. An informed discussion of literacy for Indigenous children in mainstream schools should proceed on this basis and be able to link the recognised literature with practical approaches as discussed above. An Indigenous standpoint will need to argue that literacy is either something in which the young are instructed building up language in a brick by brick fashion, or is an experiential and cultural process like other forms of knowledge. It will need to argue that literacy is known and is pre-packaged, or is subject to inquiry and experience. Indigenous standpoints will need to draw upon the non-Indigenous debate regarding knowledge and research and the characteristics of critical qualitative research that involve a wide variety of data gathering and analytical techniques.

As an Australian Indigenous educator, Rigney (2006, p. 41) has also supported the idea of an Indigenous standpoint in particular regarding research and has commented:

> The ongoing challenge for Australian Indigenous scholars is rethinking research methodologies toward the development of reflexive practices which investigate and represent Indigenous worldviews. The clear potential of such challenge is to take seriously the need for methodological reform in order to strengthen knowledge production methods toward privileging Indigenous voices throughout the entire research process. While this means that Indigenism privileges the diversity of Aboriginal ontological and epistemological frameworks, it does not necessarily mean radically different theoretical and/or methodological research methods.

In terms of schooling therefore, the argument of Rigney can be extended to include the place of literacy for Indigenous children within the regular curriculum. If there are close similarities that can be identified between Indigenous and non-Indigenous knowing and a culturally inclusive curriculum can be implemented accordingly, then radically different classroom approaches are not necessarily needed. This makes the process of adjustment somewhat easier and less contentious. It may be of course that major changes are required particularly in some of the more conservative subjects, but the broad approaches to integrated knowledge, inquiry learning and democratic relationships that are familiar to many schools around the world are ready for wide application. This is also true in the case of literacy. As noted elsewhere, it does seem strange that the obvious connections that are evident in the literature between the key principles of Indigenous learning and equity and the white non-Indigenous curriculum have not been made and acted on long before this. Based on the principles of knowledge and research noted above, it should be an immediate and realisable goal of all nations world wide that the literacy levels of their Indigenous children should equal those of their non-Indigenous classmates. This will require curriculum modification in every school in every country.

Chapter 10
Two-Way Inquiry Learning

> *Through the narrative representation of people's experiences in learning, we are allowed to catch glimpses of their meaning-making processes and of the frameworks and structures they use to make meaning of their experiences in the contexts of their whole lives (Mary Beattie, 2001, p. 170).*

It is one matter to identify the key issues reverberating around the modern world and which press down on us all, issues such as globalisation, democracy, ideology-critique, morality, perspective and reconciliation, yet quite another to account for such factors when attempting to transform education systems in the interests of the majority. If this cannot be done, then the words remain lifeless and abstract, withered theory without applicability. On the basis that practice and theory are a unity, the historic task involves participation with the principles that guide practice and reflection on practice to inform knowledge and understanding. A progressive and democratic education system needs to be able to construct its programmes of teaching and learning in this way so that all children are respected and included and are encouraged to develop their own culture and ideas from a diverse and genuinely educative experience.

Incorporating the approaches of Dewey as outlined previously, the proposal for 'two-way inquiry learning' has been advanced to establish an epistemological framework that enables a culturally inclusive curriculum to be implemented. The dimensions of two-way inquiry learning are shown in Table 10.1 below. They are suggested as a means of reconciling Indigenous and non-Indigenous knowing within the confines and rigidities of non-Indigenous education systems. They are respectful of both paradigms of learning and attempt to embody the areas of overlap. There is no suggestion that one cultural style of learning is superior to another, although the dimensions are strongly based on a philosophical view that learning in all societies begins with the social practices of communities and that new knowledge requires a systematic process of reflection on significant experience. Learning environmentally has a central position. Practice is dignified as an essential component of learning, but theory and practice are considered as a unity at all times and under continuous investigation. For this reason, it is necessary to temper a vulgar empiricism, a reliance on observation or facts only, with an integrated and challenging critique

N. Hooley, *Narrative Life*, Explorations of Educational Purpose 7,
DOI 10.1007/978-1-4020-9735-5_10,

Table 10.1 Two–way inquiry learning

Dimension 1	Continuity of experience as the basis of all learning programmes
Dimension 2	Recognition that the expression of learning occurs in different ways for different children based on their cultural and socio-economic background, but that a set of similar factors may exist in all cultures that emphasise construction of new knowledge rather than instruction in old content. This demands a respect for the knowledge and culture that all children bring to school and an acceptance that learning occurs actively from this platform
Dimension 3	Long-term systematic processes of reflection on experience
Dimension 4	Integrated theory and practice incorporating respect for and learning with the natural environment
Dimension 5	Teaching and learning that enables a framework of –holistic, integrated and constructed knowledge –emphasis on knowing by doing and experimental work –collaborative interaction in real life situations –combining informal and formal situations and events –negotiated decisions on directions and purposes –strategies of trial and error, reproduction and critique –multiple pathways for entry and inquiry –learning not predetermined for teachers and students –opportunities for thinking about previous and new action –construction and critique of ideas and proposals –applying context specific and general ideas –utilising respected local and expert advice as required –encouragement of personal and group interests –being challenged by local and global events
Dimension 6	Validation of childrens' learning, knowledge, experience and propositions that is based upon long-term consensual communication and democratic dialogue between participants and agreement on what is generally considered as being acceptable and true
Dimension 7	Holistic views of life and learning where knowledge arises from and returns to social and cultural environments for the betterment of communities of interest and where formal systems of education must be connected with the major trends and debates within communities to ground their purpose and meaning

and social discourse often necessitating the assistance of valued friends, colleagues or elders. Two processes therefore occur in tandem, where groups of people act and comment on their daily lives, at the same time as they bring to bear broader and external perspective. Those committed to two-way inquiry learning are interested in the new ideas that can be generated from the bringing together of different cultures.

Two-Way Schooling, Two-Way Learning

For some time in Australia, the notion of two-way *schooling* in Australia has been advanced as a means of conceptualising an approach towards Indigenous education. It is a concept with both adherents and detractors. Two-way schooling (Harris, 1990)

sets up an Indigenous domain of knowledge in a school such that Indigenous students can have a rich experience of their culture and language without the dominating influence of the mainstream curriculum. A two-way school would also involve a non-Indigenous domain of culture and language so that Indigenous students have access to the white, privileged knowledge of the mainstream curriculum. How feasible it is for Indigenous children to participate equally in two strong domains of knowledge is problematic, given that in a settler society, the dominant view of knowledge and learning usually dominates.

This problem of the 'domain theory' or 'domain separation' of schooling has been attempted to be resolved by the notion of two-way *inquiry learning* where the emphasis is on Dewey's approach to inquiry and learning, as distinct from schooling. In essence, it is an epistemological approach. It is intended that two-way inquiry learning will overcome the criticism of two-way schooling insofar that it creates an inferior view of learning in comparison to white learning through open and democratic processes of inquiry. There is also the problem that what is called an Indigenous 'learning style' can be seen as being inferior to non-Indigenous learning and therefore attempting a two-way process will proceed from a highly unequal position. The evidence on which an inferior view of Indigenous learning style has been based is inadequate, appears to require a prejudicial view of Indigenous epistemologies and certainly does not take into account the numbers of Indigenous peoples who live in a range of urban, regional and remote communities and participate fully in social, educational and employment activities of the broader community. Some Indigenous people may also oppose two-way schooling on political grounds, that there is little to be learnt from a society that has a completely different morality, that is unable to accept the legacy of the past and continues to engage in acts of invasion, discrimination and racism.

Proponents of two-way learning recognise that while different paradigms of education exist and can be considered as the two poles of a bar magnet, prospects for change are always present. When cut in half the two poles continue to be reproduced, but it is also true that magnetism that depends on the structural arrangement of the material making up the magnet can be destroyed if the conditions are altered substantially. Paradigms of thought, modes of thinking, or models of the brain can be construed in the same light, that truth and understanding are seen as not residing in one place only and that one viewpoint can always be challenged and strengthened by another. Herein lies the dialectic, where all aspects of learning are seen to be in relationship with each other, in fact each aspect does not exist in isolation but only in relationship and therefore the connections between aspects are not only of critical importance for meaning, but can be altered for new meaning. It may be that changing the conditions to assist new meaning is a very difficult process and in some cases will prove to be impossible. All individuals probably have a small set of beliefs and values that constitute the person and their actions (such as Indigeneity, working class, religion, whiteness) and because of their strength of formation will remain unchanged, even in the face of new and compelling evidence. This does not prevent new ideas evolving amongst paradigms so that similarities and new relationships can be generated over time.

Looked at in this way, two-way learning is most respectful of cultures, beliefs and practices, although it does assume change rather than statis as the normal mode of human biological and social life. Cultures are dynamic and creative rhythms in all societies and are impacted upon as economic, political and technological factors change. Indigenous cultures will be subject to positive and negative pressure with globalisation and the dominant society exerting its influence wherever communities exist. This will be most acutely felt when Indigenous people live in close proximity to the dominating culture and necessitates a range of different responses. Some aspects of culture may need to be modified as the cost for access to non-Indigenous ways, with medicine and health care being a prime example. Indigenous families will need to decide how to handle the cultural conflict that will occur in suburbs, towns and schools. Indigenous scholars and practitioners will need to have an analysis of the local situation and put forward policies and suggestions in regard to the defence of cultural terrains. Most significantly, they will need to make judgements regarding whether or not it is possible for non-Indigenous people to be non-racist and that a better cooperative future can be built on the history of a violent past.

In all countries, it is difficult to deny that different groups of people live in different worlds because of their social and economic standing. This is not the post-modern argument where relatively small numbers of people are conceptualised as living in their own 'spaces' of free will and where they can be cocooned from the contradictory pressures, tradition and progress. The vast majority of ordinary working people must establish means of survival within a harsh economic system, while at the same time holding dear to issues of harmony, equality and solidarity. There will be frequent periods of unemployment, financial crisis and alienation from many aspects of daily life. Living in different worlds at this stage of human development is the norm rather than the exception and needs to be dealt with in the most positive way possible. For regular schools then living and working with both Indigenous and non-Indigenous students, the starting point for restructuring along the lines of two-way inquiry learning could involve consideration of a small number of broad propositions that summarise Table 10.1 as follows:

- Respect for the knowledge and culture that all children bring to school and an acceptance that learning occurs actively from this platform.
- Recognition that the expression of learning occurs in different ways for different children based on their cultural and socio-economic background.
- Acknowledgement that a similar set of learning factors exist in all cultures that emphasise construction of new knowledge as well as exploration of old content.
- Integrated practice and theorising incorporating respect for and learning from the natural environment.
- Validation of childrens' learning and knowledge based on democratic communication and dialogue over time.
- Holistic views of life and learning where knowledge arises from and returns to social and cultural communities of interest.

These brief principles of two-way learning attempt to overcome the criticisms noted above regarding separate domains of knowledge and develop our understanding of its theory and practice for contemporary application in all schools. They suggest that different paradigms of learning can be apparently antagonistic but at the same time contain significant areas of overlap. While the poles of the magnet may remain, changing the conditions so that there is movement within a coil may produce new currents. The principles are supportive of Indigenous knowledge and culture and indicate practical directions for building relationships within non-Indigenous schools. There is no suggestion that one style of learning is superior to another, but rather there are epistemological and pedagogical features that are common to all.

Inquiry Learning and Complexity

Learning by inquiry and the investigation of personal experience has a long history in progressive educational practice throughout the past century. As is discussed in a number of places throughout this book and is an important theme for linking Indigenous and non-Indigenous education. Inquiry learning arose during the modern era as a response to the tyranny of external authority, as a means of ordinary citizens thinking for themselves and as an essential component of scientific and emancipatory thought. In the struggle against conservative approaches to teaching and learning, inquiry in most schools still occupies a minority position and must undergo further development in the theorising of why it should be supported as a preferred approach to learning. The central aspect of this unfolding drama of theory and practice in human cognition is the elevation of practice in the schematic of learning and the consequential question of experience.

Experience is an integrated event in its own right that impacts upon the structures of the brain. Learning occurs when the structures of the brain alter, with greater change leading to more profound understanding, sometimes called ‘deep structure’ rather than superficial learning. It may also be that an accumulation of experience over long periods of time can also lead to more substantial learning. New knowledge based on factual information such as the length of a river or the height of a mountain can be classified as learning, but a manipulation of that knowledge to analyse, interpret, suggest options, theorise and to utilise in different situations is learning of a higher order. As the learner undertakes new experience, the structures of the brain change to create new and perhaps tentative understandings as new structural arrangements are formed. Learning is maximised when an extensive range of experience has resulted in a complex network of brain structure and new connections can be made. Creative thinking would also seem to occur best under these circumstances, when quite disparate structures can be connected even in a loose way, linking issues that would otherwise seem apart. For these reasons, teachers who support experiential learning will encourage students to engage in a wide range of practical work, combine rather than separate their knowledge and reflect on their impressions to generate new thoughts. Thos who see learning as taking place through the mere

transmission of preordained knowledge will see little point in basing their teaching on activity or on a classroom where children are expected to create their own ideas in concert with others.

Inquiry learning can be defended on the grounds that the universe itself has developed in this way, through a process of the interaction of matter and energy and the restless creation of new structures and that humans as a part of the universe exhibit these same or similar qualities. The theory of complexity, for example, is an attempt at detailing the formation of the universe from the discipline of physics. Complex systems like the universe are non-linear arrangements where small inputs or changes can lead to large, unpredictable results, in a way that current linear laws of physics have difficulty in predicting. Complex phenomena are found in both the social and physical sciences where new properties arise as the conditions alter. This can be likened to the emergence of a new idea that is completely different to its component parts, new ideas that are only possible after a considerable amount of experience has been obtained. Exactly how a new and innovative idea forms in the brain remains an unknown mechanism at this time.

While matter and energy are considered the basic building blocks of the universe, work during the twentieth century particularly with the discovery of the double helix structure of DNA, prompted the concept of information as a third aspect and more latterly with research on complexity, human consciousness is being investigated as a fourth. This field is of course highly contentious, but the idea that consciousness is made possible as a function of physical and molecular complexity and emerges after a complex threshold has been passed, means that the universe is not predetermined clockwork fashion, but while uncertain, is rather predisposed to the formation of consciousness. Thus the idea that the universe is 'teeming with consciousness' somewhat like a super saturated solution in chemistry, ready to crystallise with extra-terrestrial intelligence at any moment, may yet prove to be one of the great defining philosophical ideas of the modern era. There is no compulsion for Indigenous and non-Indigenous communities to accept scientific theorising or to engage new ideas as they develop and are refined. Albert Einstein was very suspicious of quantum mechanics for example. But for those committed to democratic inclusive schooling for all children within the nation state, it would seem foolish to disregard what could be shown to be either beneficial or dangerous. Indigenous and non-Indigenous scholars and educators have an interest in considering the new, the confusing and the challenging and to lever every advantage they can.

While a research base for the above discussion on inquiry and complexity is still at its early stages and involves considerable speculation, the question of neuroscience and education is causing some excitement. For example, a seminar series in the United Kingdom that brought together national and international educational and scientific experts (TLRP-ESRC, 2006, p. 22) commented in its report as follows:

> Education thus appears set to become an interesting area of challenge for cognitive neuroscience, as it attempts to explore new contexts. Some neuroscientists have even suggested that education might be considered as a 'process of optimal adaptation such that learning is guided to ensure proper brain development and functionality.' This sense of increasing

> mutual interest underlies calls for a two-way dialogue between neuroscience and education that could helpfully inform both areas.

General support for inquiry learning as the baseline of human consciousness and existence does not mean that its application in formal systems of education will be straight forward. More conservative approaches are difficult to budge, especially when they are easier to implement. That is, handing out a set of text books, with classes working in silence and being tested at the end of the week, is a process that can be made to work with large numbers of students. A non-democratic society will have trouble in establishing democratic schools, societies with a religious outlook will have difficulties in setting up a non-dogmatic, scientific approach and those that encourage profit and competition will not be supportive of sharing and cooperation. In addition, the relation between theory and practice in science has always been contested, with either one or the other taking precedence at any particular time in history. The general epistemological conditions that need to be implemented in schools for inquiry learning to flourish across the curriculum at all year levels for all subjects will therefore not be accepted easily. As a starting point, however, they should include

- continuity of experience as the basis of all learning;
- long-term systematic processes of reflection on experience;
- flexible approaches to teaching based on integrated knowledge, practical experience of ideas and concepts and interactive communication with peers and teachers;
- democratic means of monitoring and evaluating learning progress.

Features of Two-Way Inquiry Learning

Two-way inquiry learning as described here is a reaffirmation of the place of Indigenous learning in the human concept of learning generally, that is a place of equality in relation to non-Indigenous learning and a positioning of it in the grand tradition and narrative of participatory inquiry. This allows a theorising of models or paradigms of learning that identifies a direction which can then form the basis of curriculum design in schools and universities. For Indigenous interests, it enables a theory of learning and of practice to be advanced that has a recognised location in the literature and a recognised experience from many countries around the world, including Australia. Table 10.1 above outlined the features of two-way inquiry learning that distinguish it from current practice of most schools and universities. The seven dimensions need to be taken as a whole, in the same way that the components of an engine each have their own speciality but must combine with others as a unity to ensure that the desired outcome is achieved. A number of the key components or concepts of two-way inquiry learning are described in greater detail below:

- Continuity is taken to mean a connection between experience over long periods of time, at least in the Australian context throughout the 7 years of primary schooling and the 6 years of secondary schooling. The establishment of a small number of broadly descriptive learning outcomes for these periods of time will be advisable as distinct from a large number of specific content areas for testing.
- Cultural inclusiveness requires that all institutions engage in an ongoing conversation about cultural constructs and how learning can be frameworked accordingly. This creates a tension with centrally produced curriculum documents of political rather than epistemological and democratic intent that attempt to specify worthwhile content for age groups of students regardless of cultural background.
- Reflection is a complicated intellectual process that presupposes an extensive reservoir of experience, learners must have the opportunities to reflect in and reflect on practice rather than be expected to reflect in a vacuum without immersion in the necessary practices and encounters. The emphasis on personal experience and of systematic reflection across the curriculum of all learning programmes is a marked departure from the competitive academic curriculum.
- Learning from the land is a clear demonstration of respect for Indigenous culture and epistemology, but is one that will benefit all children. All humans attempt to re-establish such harmonious connections in the modern world, whether urban, rural or remote, to a greater or lesser extent. Learning environmentally through experience unites practice and theory, Indigenous and non-Indigenous knowing and places the understanding and improvement of social practice at the centre of all learning.
- Holistic, integrated learning with all its necessary detail has been attempted by many educators, but the ideological constraints of schools have made its full expression somewhat muted. The combining of subjects and in some cases, year levels, provides some experience, but the structure of learning around a small number of outcomes with a de-emphasising of predetermined subject will be a major challenge.
- Validating children's learning over long time frames, as distinct from assessing predetermined content slices at particular predetermined times, constitutes a significant change. It attacks ideological parameters and power structures. There is little reason, however, as to why children of all ages cannot engage in communicative action regarding the determination of learning, knowledge and the search for truth.
- Social and community connections with the school curriculum are necessary to provide points of reference, to ensure community relevance and to encourage full participation of community members, all of which assists the two-way exchange of knowledge and wisdom. Designing a curriculum in isolation from the great social trends of the day weakens its epistemological heart and denies students access to the application of traditions and practices of communities as they go about constructing their lives.

Schools are usually not fundamentally characterised by the dimensions of two-way inquiry learning as outlined, although some progress has been made on some

of them around the world. There is no reason, however, why schools should not be characterised by the dimensions. Different models of curriculum change, or more accurately epistemological change, can be envisaged that will move in this direction. As shown below, these can include various combinations of the dimensions of two-way inquiry learning (D1, D2, . . .) and of subject content:

Model 1: Two-Way Inquiry Learning and Segmented Subjects

	English	Maths	Science	Arts	History	Techno	PE	LOTE
D 1								
D 2								
D 3								
D 4								
D 5								
D 6								
D 7								

Model 2: Two-Way Inquiry Learning and Integrated Knowledge

	Humanities	Arts	Sciences	Technologies
Dimension 1				
Dimension 2				
Dimension 3				
Dimension 4				
Dimension 5				
Dimension 6				
Dimension 7				

Model 3: Two-Way Inquiry Learning and Holistic Experience

	Project 1	Project 2
Dimension 1		
Dimension 2		
Dimension 3		
Dimension 4		
Dimension 5		
Dimension 6		
Dimension 7		

The above models all display a confluence of two structures, those of two-way inquiry learning and of knowledge arrangements that must be realised each day in a modern school. The usual mechanism for doing this is called the timetable. Model 1 is the most complicated in this regard, requiring that many packages of disconnected content are encountered every week. Model 2 begins to resolve this issue by transacting across subjects so that learning is encouraged within four broadly integrated

Table 10.2 Two-way inquiry learning lesson plan

Year 5 Mathematics
Garden geometry
Learning outcomes
*
*
Indigenous learning outcome or cultural guidelines
*
*
Statement on Indigenous education
Lesson summary
1.
2.
3.
Teacher reflections

areas. Finally, the need for separate subjects and indeed the timetable itself is eliminated by Model 3, where knowledge is not specified beforehand but is seen to arise from a holistic experience, learning is organised around negotiated projects not necessarily related to traditional subject areas and where the connections between school and community are strong. In epistemological terms, this model involves a number of layers of complexity as learners have to navigate their own curiosities and facilitators need to ensure that progress is made on the achievement of learning outcomes. A detailed lesson plan or organisational chart to meet these requirements for any class regardless of whether Indigenous children are present or not, will need to have the following broad features as shown in Table 10.2.

A two-way inquiry learning lesson plan will need to be clear on the purpose of each learning activity or sequence and will see learning as taking place over much longer time allocations than the usual single class. The two-way enquiry learner will construct learning over a period of years with many twists and turns, a process that has serious implications for assessment practices. There will need to be a specific Indigenous learning outcome which may be integrated in other outcomes and which will be based on an explicit statement regarding the philosophical underpinnings of Indigenous learning as understood by the teacher or school. All learning units should require teacher reflections on the strengths and weaknesses of the programme and how it can be improved. The statement on Indigenous Education for the Grade 6 topic of Garden Geometry, can be informed from different angles, such as suggested below:

- Transmission of content: Indigenous education is seen as the passing on of knowledge regarding Indigenous history, language and culture.

  Statement: In learning from the natural environment, Indigenous peoples have a close connection with the animals, plants and landscape of the surrounding area and such knowledge is passed on from generation to generation by stories, dance

and painting. In this way, the knowledge of the community regarding native plants is protected for its cultural and utilitarian value.

Learning outcome: Awareness of native plants in the surrounding area.

- Indigenous Perspective Across Curriculum: Indigenous education is seen as the application of an Indigenous perspective across the entire curriculum, not restricted to a particular subject.

  Statement: In learning from the natural environment, Indigenous peoples have a close connection with the animals, plants and landscape of the surrounding area and such knowledge is passed on from generation to generation by stories, dance and painting. In this way, the moral, religious and learning culture of the community is maintained and provides the basis for decision-making and problem-solving within communities.

  Learning outcome: Engagement with Indigenous person regarding the medicinal use of native plants.

- Two-way inquiry learning: Indigenous education is seen as a set of learning principles that bring both cultures together for reconciliation and challenge and encourage the creation of new ideas for understanding and mutual benefit.

  Statement: In learning from the natural environment Indigenous peoples have a close connection with the animals, plants and landscape of the surrounding area and such knowledge is passed on from generation to generation by stories, dance and painting. In this way, community members develop their understanding of their own history and culture and gain practical means of living across cultures in a changing world.

- Learning outcome: Understanding the significance that the different shapes, sounds and materials of the local environment have for Indigenous peoples and how these relate to the culture of non-Indigenous peoples.

Project Development

In considering the application of two-way inquiry learning to a specific curriculum area such as mathematics, a project chart that opens up the seven dimensions may be a useful guide and is shown in Table 10.3 below:

Provided that school mathematics is not argued to be different because it is seen to be different with distinctive principles and procedures heading towards ultimate truth (see Chapter 13), the recommendations of two-way inquiry learning can apply at both the primary and secondary levels in the same way as with all other subjects. Two-way inquiry learning is particularly important for school mathematics because it sees a unity of knowledge in the universe where humans have made divisions between content on the basis of their understanding, not because such divisions actually exist as a property of the universe itself. Rather than the transmission of known knowledge, two-way inquiry learning attempts to immerse learners in a process of democratic participation and communication with knowledge so that

Table 10.3 Two-way inquiry learning and mathematics

	Mathematics
Continuity	Programmes to operate over at least a year, preferably as a continuum over the entire primary and secondary years
Cultural background	Learning to begin with the contextual knowledge and understanding of children, rather than the decontextualised knowledge of the school
Long-term reflection	Learning to centre on practical experience of children as the basis of personal reflection
Theory and practice	Theoretical ideas to emerge from practical knowledge and to be investigated and theorised in practice over time
Teaching and learning framework	Knowledge constructed within an inquiry framework rather than specified through ongoing cycles of experience and reflection
Validation of childrens' knowledge	Childrens' knowledge to be respected and validated by cycles of communication, theorising and practice
Holistic life and learning	Connections to be made between community and school life and knowledge in all areas of learning

over time, understandings and ideas coalesce and become knowable. The notion that certain principles have become schematised throughout the modern era if not centuries before that, and that these cannot be constructed by children, is beside the point. This confuses the role of schools in society and places children in a passive position in regard to investigating truth. There are many frames of understanding that will not be covered in schools, but can be approached throughout life based on a certain orientation towards exploration and analysis. The experiential approach towards doing and knowing builds up a base of experience from which new ideas can be considered and connections made in due course. Learning is culturally situated and does occur within a context that can either be a specific context within the brain, or a generalised context that is constituted by the totality of experience that already exists. The difficulty arises when decontextualised or abstract learning is demanded without the strength of a cognitive framework to support such an investigation. This is usually the case with school mathematics and explains the almost universal problems encountered in the bourgeois school. It certainly explains the contradictions between Indigenous and non-Indigenous intellectualisation that cannot be resolved under current structures that dominate many schools worldwide.

The transmission of knowledge approach does have a number of important intended consequences in learning terms:

- respect for knowledge and culture;
- factual accounts of history and appreciation of diverse values;
- awareness of achievements of different groups in the community;
- identify democratic, racist, stereotypical views.

and in regard to Indigenous studies, assist students to

- examine prehistory and history since white settlement;
- experience different cultures, languages, histories;

- appreciate key issues such as land, community, identity, tradition;
- evaluate current disputes such as native title, stolen generations, rights and responsibilities.

Whether or not mere transmission, however, results in superficial understandings or something more than that is the distinction being made by the application of Indigenous perspectives across the curriculum combined with two-way inquiry learning. The latter two approaches are designed to encourage an active inquiry that will lead to a deep structural change of the intellect, whereas the former assumes that this will happen, if at all. School mathematics is the classic case in point that assumes abstract knowledge through instruction, rather than pragmatic understanding through experience. Indigenous studies in schools can be seen in the same light, if the context is not established through a broad base of experience and through systematic inquiry and reflection, then the resulting understanding will be of a surface type only.

It must be emphasised that the purpose of two-way inquiry learning is to take learning to a depth not currently possible in regular schools for both Indigenous and non-Indigenous students in all areas of the curriculum. The cognitive and social alienation that is felt by many students is a major question for Australian education and one that forms the next great educational leap forward that must be made. This is not primarily a matter of resources, important as they are, but a matter of philosophy and ideology as the struggle for equity within formal dominant systems continues. Children of the working class deserve better than what is at present available in the bourgeois school in terms of a partnership with knowledge and two-way inquiry learning can chart the way forward. To provide some added detail and in combining the above theme of Garden Geometry with a progressive approach to assessment, a lesson plan in broad outline for senior primary and junior secondary students might look something like given in Table 10.4:

Indigenous Studies

Should Indigenous Studies be a compulsory subject for all children in regular schools around Australia and in similar countries? In this respect, Indigenous Studies is taken to be the presentation of information about Indigenous issues and occurs in the regular timetable in the same way as other subjects. Looking at maps of Indigenous lands or considering major events that have occurred since settlement fall into this category. It is not intended to be the teaching of Indigenous culture by white teachers, but could involve a framework of Indigenous perspective as best understood by the teacher and school. As usual, this question can be answered on political, economic, cultural, or psychological grounds, rather than educational alone, highlighting the distinction between transmission and two-way inquiry learning noted above. If the intention is to provide information on which students can make subsequent decisions regarding their views and indeed values, then some type of compulsion may be appropriate. On the other hand, if deep structure

Table 10.4 Two-way inquiry learning lesson plan detail

Years 5-8 Mathematics
Garden geometry

Learning outcomes
- Relation of polyhedra to plant shapes
- Designing a new flower with specific purpose
- Significance of the circle for local cultures.

Statement on indigenous education
In learning from the natural environment, Indigenous peoples integrate knowledge and culture and incorporate observation and experiment. Informal and practical mathematics and science are used to explain phenomena and to assist community purpose.

Lesson/unit summary
1. Field trip to national park to document in cultural format native plants and to observe their relationship with animals and insects
2. Background information from Elders, park rangers, books and Internet regarding plants and animals encountered
3. Speculation on shapes of plants and suggestions for geometrical improvement
4. Presentation of posters to local community for comment and future investigation

Monitoring and assessment
Diagram, poem and song that illustrates mathematical properties of native plants

learning is deemed important, a process akin to two-way inquiry learning will be adopted, where learning is not compulsory, but a democratic framework for cognitive development is established and students are encouraged to press forward with their independent learning as much as possible.

It needs to be emphasised that the term Indigenous studies (Craven, 1996, 1999; Phillips and Lampert, 2005) in schools or in teacher education programmes does not refer to an anthropological study of Indigenous peoples. While anthropology is a university programme, it should not be confused with approaches adopted elsewhere. For example, Indigenous studies in schools may include issues such as the history of the country since colonisation from the point of view of both Indigenous and non-Indigenous groups. Teacher education is also mainly concerned with inclusive teaching and learning as discussed in this book, not classical anthropology. At present, studies of Indigenous issues are usually found in the history and geography section of the school curriculum and are non-compulsory. A subject is compulsory if it must appear on the timetable for all students and must be assessed in the way that English and other subjects are handled across the country. This indicates a cultural view, that is, the study of English is important for all citizens and an economic view, that is, the study of English is important as an international language. Two-way inquiry learning will generally not consider any area of knowledge as compulsory, but will seek to integrate essential aspects of learning into negotiated projects so that students will pursue understanding to the limit, an approach that is epistemological rather than sociological. Indigenous studies is recognised as an extremely important area of knowledge but like all other areas, must be approached in a democratic rather than hegemonic manner.

Indigenous Languages

Indigenous language should be a central component of two-way inquiry learning, if possible. Many of the Indigenous languages of the world are disappearing as an ongoing function of colonisation, dispossession and the passing on of Elders. It is estimated that in Australia there were about 250 different Indigenous languages spoken at the time of British settlement with an approximate 500 dialects in total. Today, these numbers have been reduced to about 100 Indigenous languages spoken in regular use, but only about 20 of these have a sizeable community of speakers. In some communities, English may be the third language for many members, with Indigenous or a mixture of Indigenous and English being used. Bilingual education was introduced in the Northern Territory of Australia during the 1970s, but has had a difficult time. Not only must a school have access to a traditional language through the participation of community members over long periods of time but, as discussed above, a school must be able to bring Indigenous and non-Indigenous culture and knowledge together. This requires very well-prepared teachers who have worked with a particular community for many years. In a similar way to the successful incorporation of inquiry learning; it must be supported in whole school approaches by the community and profession across all subjects and across long time frames. Introducing Indigenous languages into regular schooling as a 'Language Other than English' is extremely difficult as well for these reasons.

Given the centrality of land, culture and identity to learning, schools need to do what they can in supporting the use of Indigenous languages in their programmes. This can involve respect for the participation of local Elders and language speakers whenever possible, regular employment for community members as teaching aides and for community liaison, the extensive use of story telling in local languages to illustrate and connect with key ideas in all subjects, a well-stocked library of Indigenous written materials and of video and DVD resources that demonstrate Indigenous history and culture. Excursions to local areas to highlight links with the natural environment and events that have occurred can also be undertaken. If it is not possible to emphasise local language entirely, then language should be used when possible to add to particular topics being studied in class. This work cannot be successful without full negotiation and agreement with the local Indigenous people, a process that is very time consuming, complicated and subject to mistakes as professional educators attempt to work across cultures and difficult educational ideas within the constraints of the regular curriculum. The respectful incorporation of Indigenous language is one of the most difficult problems to be faced by two-way inquiry learning.

In the final analysis, schools should exist for the benefit of children not the society, certainly in those societies that have the capacity to fund mass schooling. This is a non-idealistic position because of course maximum systematic learning at a deep level benefits both the child and the society. As the society sways and bends under the impact of the winds of economic and political change, it must ensure that its schools remain democratic, focused on enhanced learning for all. The best way to ensure this is the maintenance of an epistemological framework that allows learners to take up issues of their interest and the school or university to temper such

directions with more global concerns and generalisations that have emerged over the eons. Compulsion is a most simplistic technique to access major ideas and in the end will not work with children anyway; it is impossible to compel learning. Democratic learning on the other hand is the most profound that humans have to offer. How such learning is to be formally assessed then becomes a key question.

Assessment for Two-Way Inquiry Learning

Assessment is the most difficult issue in education because of the power relationships it cements between novice and expert and because of the range of outcomes it is supposed to satisfy. It is also a process that is generally handled badly both at the school level where the design of assessment tasks is usually undertaken for propositional knowledge only and does not examine multi-layered understanding. Progress has been made on these issues over recent years, but much remains to be done. There is enormous tension at the senior secondary level where requirements for employment and tertiary selection must be met regardless of educational imperatives and personal aspirations.

Schools and systems have made many attempts over the years to establish more democratic forms of assessment, but these have been enormously difficult to sustain especially under different economic circumstances. Calls for greater accountability occur during times of recession when the community is more anxious about employment and the future of its young people. Some deviation from conservative procedures may occur when the economy is a little stronger. There is also the question sometimes put from a more progressive standpoint, that all children need to be treated equitably and that the same types of curriculum and therefore assessment should be the experience of all. This approach can mask inequities particularly those of a social class nature where the bourgeois view of knowledge and life aspiration is not appropriate to the children of the working class. The imposition of competitive examinations at the senior secondary level is a good example of this. Democratic assessment for all children at all year levels should involve the following points:

- Negotiated curriculum beginning with the interests and knowledge of the learner.
- Integrated projects to meet a small number of learning outcomes.
- Processes of two-way inquiry learning.
- Investigations that extend over long time frames.
- Diversity of assessment tasks building on the strengths of the learner.
- Non-graded, criteria-based and negotiated requirements.

In practical terms, students may demonstrate their learning in a wide variety of flexible and non-graded ways including:

- Role play
- Song, dance, painting sculpture

- Presentation
- Essay, poem, report, survey
- Posters, photographic or video essay
- Web pages and other computer-based projects
- Interviews, oral histories and issue summaries

These principles are appropriate for Indigenous and non-Indigenous students. They form the basis of high quality programmes and learning, rather than the simplistic transmission of knowledge and the demonstration of take-up. Many primary schools attempt to work in this way, while secondary schools with their segmented curriculum find the approach more difficult. Similar to two-way learning itself, there is no reason why this should be so at the secondary level including in the senior years. At some point, secondary schools must resolve the conflict between its competing pressures and come down on the side of substantial learning for all children, the epistemological determinant and not the sociological. This is in the historic interests of the working class everywhere.

Indigenous Education in the Modern World

Our discussion regarding Indigenous education has now come full circle, beginning with the huge questions facing humankind in the modern world such as globalisation, democracy and domination and resulting in the practical strategy of two-way inquiry learning for regular classrooms. We have attempted to identify a non-assimilationist practice that will legitimate teaching, learning and researching with Indigenous communities and cultures that will be accepted by the authorising economy, while at the same time allow for the evolution of a dynamic knowing and doing of the minority economy. A strategy of this type that is desperately lacking at the moment is required if Indigenous people want access to the privileged knowledge and practices of settler societies to benefit their own.

In what can only be described as a beautiful and artistic book (Papunya, 2001), the children from Papunya, a small Indigenous town in the central desert area of Australia, have described their feelings towards their home, their country and their learning in the following way:

> At Papunya School, *ngurra* – country – is at the centre of our learning. It is part of everything we need to know. We learn about our history and our country from our Elders and our community. We learn by going to our country, by living there and being there. We learn through the *Tjukurrpa yara* – the Dreaming stories. We learn through the different songs and dances and paintings that belong to different *ngurra.* But as well as learning in this traditional way, we can also find out about our country and our history by putting some of the pieces of the story into a book. That's two-way learning: Anangu way and Western way.

This is a magnificent description of two-way learning from the culture of the land and provides detailed guidance for any teacher whether in mainstream or Indigenous schools. It surely opens up the question of culture for all teachers of mathematics, science, arts and humanities. Policy makers at all levels could not do better than take

these insights from the Papunya children as their starting point. For the practising teacher in urban, regional and remote areas, it remains to ensure that practice, theory, theorising and reflection are combined every hour of every day in accord with the suggestions of two-way inquiry learning, a task that is admittedly difficult. This, however, is the stuff of teaching and learning whenever a progressive philosophy is adopted. It may be that the 'what works' approach is favoured over the 'learning with' or the 'practice into theory and return' approach, but education systems will not move forward into a new realm of sunlight and intellectualism appropriate for the historic and economic times, until such epistemologies are tried.

The issue of school mathematics has been stressed throughout this book because this has always been the area that holds back curriculum change and the one that appears to be the most difficult to conceptualise within a broad framework of inquiry. There should however be no problem here with school mathematics being subject to the same theories, principles and procedures as all other aspects of the curriculum. It does mean that mathematics must be reconceptualised and reconfigured in fundamental ways. All other areas of knowledge should not be difficult to renovate particularly given the experience of many teachers throughout the world in so doing over many years. It is envisaged that a two-way inquiry learning school will not evolve from tinkering with the curriculum but great leaps or paradigm shifts in the opposite direction to current thinking. New ideology is not the problem, resistance from the old is more to the point. The resource question is a major hindrance in many countries, whereas given the large budgets that are allocated to the public school system in the stronger economies, it is more a redistribution of the resources currently available. Plato and the educational and political conservatives may still have a grip on how our schools are envisaged for the minority, but the educational and political progressives can re-envisage for the next century of change and progress for the majority and marginalised.

The discussion sketched in these chapters is scientific and epistemological in outlook. It is also however based on a working class perspective of what is in the best interests of the vast majority of ordinary working people around the world, including the Indigenous peoples from many countries. Two-way inquiry learning as located within a public sphere of communicative action and social practice requires that participants do identify a world view that has its progressive theoretical characteristics and can be defended in the light of other and competing conservative world views. The Indigenous world view can be unclear at present in relation to major non-Indigenous philosophical and educational dilemmas and needs to clarified before the processes of two-way inquiry learning can be brought to bear. This does not mean that all matters sacred and traditional to Indigenous peoples and communities must be exposed, that is a political judgement to be made. But sufficient must be divulged and form the basis of democratic communication and dialogue so that each group can learn from the other and go forward. Education is recognised by most cultural groupings around the world as being crucial for future development, but this may also mean crucial for engagement, well-being and mutual understanding. Regardless of other considerations, education can form a public sphere in its own right and bring people together for mutuality. As we have seen, Dewey himself considered

education as being essential for peace and democracy. By this he meant not only the formal systems and processes of society, but the informal interactions and exchanges that go on between citizens every day. Two-way inquiry learning within a public sphere that remains to be consolidated through creative social practice and imaginative cognitive innovation may be one avenue of proceeding for reconciling cultures and peoples across the divides of the past.

Chapter 11
Participatory Narrative Inquiry

> *As we worked within the three-dimensional narrative inquiry space, we learned to see ourselves as always* in the midst – *located somewhere along the dimensions of time, place, the personal and the social. But we see ourselves in the midst in another sense as well, that is, we see ourselves as in the middle of a nested set of stories – ours and theirs (Jean Clandinin and Michael Connelly, 2000, p. 63).*

How can a curriculum for Indigenous children in mainstream schools be designed so that it can be defended through links with the recognised academic literature, respects Indigenous participation, culture and knowledge across the curriculum and enables an innovative and flexible approach towards two-way inquiry learning? How can the serious implications of globalisation, democracy and whiteness be accommodated such that the learning of the child regardless of background is placed at the centre of all educational endeavours? The proposal that is described here centres on the concept of democratic and participatory narrative inquiry as a means of confronting those serious problems within Indigenous education and research as they challenge many countries around the world.

Bruner (1996) observed that humans have both scientific and narrative modes of knowing. He outlined nine general propositions including how time, sequence and particularity are handled, the place of action and how events are interpreted, inclusion of the unexpected and the ambiguous and how the narratives of others link to our own lives. In their work on narrative inquiry, Clandinin and Connelly (2000) drew upon Dewey's (1963) theories of experience when they proposed a narrative structure of three dimensions that looks backwards and forwards, inwards and outwards and considers the location in place of participants. These approaches structure narrative in ways that may or may not be present in everyday interactions, but which suggest key features of more formal narrative studies.

While this work for teachers need not be directly concerned with the formal validity or validation of knowledge, that is how data of various types link with normative and causal statements, its nature and trustworthiness for understanding Indigenous issues in schools needs a conceptual framework that enables this process to occur. Habermas (see Outhwaite 1996, p. 185) sees the notion of validity as a communicative and democratic process between participants directed at

N. Hooley, *Narrative Life*, Explorations of Educational Purpose 7,
DOI 10.1007/978-1-4020-9735-5_11,

reaching consensus and 'intersubjective recognition of validity-claims'. He goes on to suggest that 'In the orientation to validity-claims the actor's world relations are actualised', a view that if accurate cannot be escaped at the daily level. In other words, the interactions on which daily life is based also reflect the great social trends and currents that permeate humanity. This is a similar notion to that of a mathematical truth if holding throughout the universe, is said to also hold in our daily life as well. For Habermas, reaching a communicative consensus on practice is the way that humans seek meaning and is therefore an essential component of any research project. In establishing the relationship between cultural and individual characteristics, researchers can take account of the complexities, constellations and connections of as many as possible existing factors rather than attempting to isolate specific items, particularly in a first cycle of investigation.

Choosing narrative inquiry as the methodology for Indigenous learning will hopefully confront these issues. The development of normative statements is not intended as the purpose of this book, but a recognition that a framework of generality does exist and sets up the conditions for dislodging the authority of conservative educational practices if need be. For example, a consideration of the fields of modern science, Indigenous environments and formal education must of necessity begin from a starting point and not from mid-air. A lifetime of working within these fields which are themselves located within the broad cultural and political contours of Australian life, means that learning and knowledge do not proceed from a neutral or vacuous position. Research programmes that extend across different cultural settings include a range of diverse factors such as socio-economic backgrounds, racial origins, gender perspectives, age and geography, disability, modern scientific objectivity and measurement. Narrative inquiry will hopefully provide the basis of dealing with such multiplicity because as Beattie (2001, p. vi) has suggested:

> Professional learning begins in an examination of practice, or experience and of the stories we enact in our lives, our schools and our society. It involves understanding one's own story, learning to hear and understand the story of others and continuously scripting the stories of self as teacher and of schools, community and society. Rescripting the story is about inventing the future, about imagining how things can be otherwise and about working with colleagues to bring about a better world for all people.

This is the essence of narrative as conceived in this book and shows how personal telling and retelling if structured appropriately, can order experience and lead towards social justice. As Polkinghorne (1988, p. 161) notes, the use of narrative in the human sciences can either be descriptive or explanatory. In descriptive narrative, an account of experience is presented perhaps in a layered form from different points of view. In explanatory narrative, the intention is to go beyond mere description and to seek or unravel the explanation as to why experience occurred and to explore causal links between the events uncovered. Winter (2002), in discussing the implications for action research when constructing narratives, suggests also that the

process needs to be collaborative so that all participants are heard throughout the research and that 'self questioning' needs to occur so that debate between voices is progressed.

When using narrative techniques, the researcher as in the case of historians, for example, is always in the position of crafting interpretations. This means working with the data for a long time, perhaps over many years, to be steeped in the data and experience, seeking facts, exploring confirmation, evaluating alternative views and developing understandings. Apart from researchers who have an extremely empiricist view, that is the truth not only resides in data, the truth is data, it is the role of research to offer the best explanation that the evidence provides. As Clough (2002, p. 83) points out, it is not so much the validity of research that impacts, but its 'ability to speak to our experience because it shares our objects' that makes research something of note for humans. This is so in both the physical and human sciences. In narrative inquiry therefore, oral histories and personal accounts need to be accepted alongside official and written reports of events and experimental data. In this type of qualitative research, the issue of knowledge credibility will always be central, requiring that as many cycles of investigation and reflection on outcomes as possible are completed, so that truth, trustworthy claims, insights and descriptions of meaning are agreed and supported by the research community involved in the project under consideration. In seeing research as a form of democratic social life, Kvale (2002, p. 323) offers the thought that when communities do not place 'distrust and scepticism' first but rather seek to establish appropriate forms of relationship and communication, 'The question then becomes how we shall live so that we do not have to continually pose questions of validity.' This approach is very congruent with Indigenous knowing and the trust and sharing that exists within communities.

According to this discussion, the knowledge and research questions that could be encountered by Indigenous education are therefore diverse and multi-layered. The process of reflective practice will generate a movement across knowledge and experience and a range of theorists will be brought to mind, although generally in an associative, interpretive and inquiry manner, consistent with the tradition of narrative inquiry. This as an educational strength as it rejects preconceived ideas of what is to follow and opens the investigation to creative and new directions. Starting from the point of view of interpretive and qualitative research that we consider to be an appropriate framework for Indigenous knowing, we will draw upon the features of critical theory and of participatory action research as well as previous experience in considering how the principles of inquiry and integrated learning can be incorporated into a progressive and contemporary curriculum. The study is positioned within the broad philosophical tradition of Dewey, Freire and Bruner and has constructed a methodology of systematic narrative inquiry as its pragmatic expression. As a broad framework of investigation and based on narrative inquiry as conceived by Clandinin and Connelly, Fig. 11.1 below shows a three-dimensional approach to participatory narrative inquiry that can guide curriculum for Indigenous children in schools:

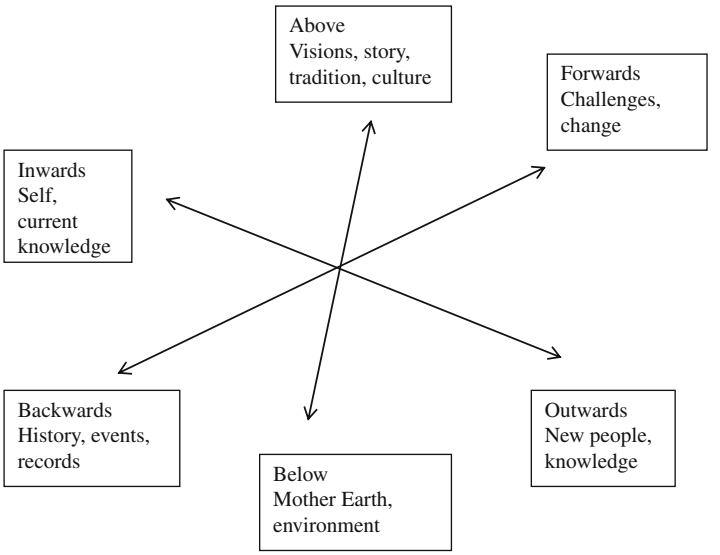


Fig. 11.1 Dimensions of narrative

Considerations of Knowing

In his ground-breaking work on how professionals construct their daily lives, Donald Schon identified a process of 'reflection-in-action' that he likens to the improvisation of jazz musicians (Schon, 1991, p. 55). He reports that 'Improvisation consists in varying, combining and recombining a set of figures within the schema which bounds and gives coherence to the performance.' In this way, Schon attempts to move beyond what he calls positivism and a technical rationality that may dominate at least some professional activity, to describe a more fluid, creative and evolving understanding of a field that the practitioner experiences and can make sense of through reflective practice. This is the central concern of the narrative approach to curriculum to establish a process of reflective practice for teachers and students that draws upon extensive and often documented experience and which encourages the creative drawing together of key ideas and insights to guide further practice and by definition, personal understanding. At times, this may be tentative and difficult to describe and certainly the new ideas that occur may be haphazard as thoughts emerge from past and current practice. The notion of both reflection and practice as employed here is very active, involving an integrated thinking back on rich experience, a connecting with the ideas of others for advice and critique and a redesign of thought and practice so that credibility and integrity can be established for investigation. Curriculum therefore involves a constant process of reflection in and on practice with outcomes that expose meaning to greater scrutiny. Improvisation is a very important aspect of learning, or in Schon's terms, an 'epistemology of practice.'

Within the context of reflective practice, the issue of improving Indigenous education is composed of a broad set of layered problems:

- How do the principles and practices that constitute approaches to knowledge in different cultural settings interrelate?
- How do members of different cultural groupings recognise and respect the knowledge and understandings of other cultural groupings?
- How can action proposals incorporating different cultural perspectives be investigated so that personal understandings can be reconstructed within a regular school curriculum?

These questions are designed to set up a framework for investigation of knowledge production within different cultural settings and to identify if possible some guiding ideas of educational practice that are grounded in each setting and which have the potential of bringing people together to consider serious issues in their lives. This is not necessarily a search for universal parameters of learning, but to suggest a framework of practice within which people from diverse backgrounds and cultures can find respect and identity as they pursue meaning. The latent potency of social diversity is that people have similar needs, experiences and stories that link across cultures and unite the human journey, unity in diversity being a strength in combating problems rather than a weakness. For example, bringing people together through a community project concerned with protecting the environment of the local river will involve all participants in mathematical thinking but not necessitate agreement on mathematical procedure or forms. Reflective practice will therefore range across the total set of questions that comprise a project to ultimately propose a practical means of drawing together interpretations and implications while working democratically with other people who may have a substantially different worldview.

Inspiration to pursue the question of Indigenous education and epistemologies from a mainly qualitative perspective has come primarily from the work of Denzin et al. (2008) and Denzin and Lincoln (2000, 1994), Smith (1999) in regard to Indigenous research and Beattie (2001, 1995) and Clandinin and Connelly (2000, 1994) in terms of narrative inquiry. More detailed comment regarding narrative and qualitative research will be outlined below. What is particularly significant about the approach of these theorists is the respect accorded to all participants in the research process and their use of qualitative knowing and narrative as a mode of inquiry into experience and knowledge. Beattie and Clandinin and Connelly's reference to Dewey not only bridges more personal and local concerns with generalised thought, but also locates their work in the broad sweep of pragmatic philosophy and constructivist knowing.

Story telling (as distinct from the more structured approach to narrative inquiry as described here) takes place in many communities around the world as a way of communicating, exploring and recording experience and of negotiating meaning. It occurs in spoken, written and a range of artistic forms. It is an important aspect of the building of culture so that local practice both relates to and is tempered by broader social concerns. The telling and retelling of events enables people to come to

a shared understanding of social life and to reach consensus on significance. As outlined by Webster and Mertova (2007, p. 103), story telling is a natural and common form of human communication and that storytelling is used to communicate those elements of experience that have had a profound impact on the individual. For some specific communities such as Australian Indigenous peoples, oral and ceremonial traditions are essential to cultural formation and include the responsibility of Elders to decide when particular areas of knowledge are to be made accessible to younger members.

Principles of Indigenous knowing have been consistently identified by Indigenous groups in various countries, where it may be that a lack of political will or educational understanding by the dominant society can prevent their incorporation into the regular curriculum. Indigenous Australian communities are often highly sceptical towards educational research as well, seeing this as another form of colonialism or oppression and one that offers little for educational improvement. Some research methodologies may not be appropriate in terms of Indigenous knowledge production and can be disrespectful of community interest, culture and history. Issues such as these that frame Indigenous education and research are extremely important in Australia and elsewhere as practices that can inhibit rather than enhance cultural democracy and reconciliation between Indigenous and non-Indigenous people.

The curriculum methodology of participatory narrative inquiry shown in Table 11.1 above involves the compilation and/or writing of a series of personal narratives on specific themes negotiated by participants in schools such as teachers, Indigenous and non-Indigenous students and community members. The narratives can focus on general life issues, or themes that have a school and curriculum emphasis. The methodology extends the work of Clandinin and Connelly in a number of ways. First, the identification of insights that resonate throughout and across the writing according to participant identification. Second, the inclusion of a fourth dimension of educational and social change that arises from the narra-

Table 11.1 Narrative as phenomenon and process

Narrative as phenomenon (curriculum)	Narrative as process (research)
Features of narrative as curriculum: 1. Personal and community knowledge is capable of being produced 2. Insights and resonances that form the basis of new understandings 3. Exemplars of practice that enable new understandings to be investigated 4. Ongoing construction of narrative and counter narrative	Features of narrative as research: 1. Systematic, long-term processes of inquiry 2. Personal, community and broader new knowledge is capable of being produced 3. A process of integrated, practice-based theorising 4. Insights and resonances that form the basis of new investigations 5. Exemplars of practice that structure the investigation of new understandings 6. Ongoing construction of narrative and counter narrative

tive investigation and which therefore sets up cycles of action and reflection. The intention of narrative inquiry here is to produce knowledge outcomes that can be further investigated in practice. Third, consideration of theoretical ideas that inform and challenge the approach being adopted. For example, the reflexive sociology of Bourdieu (Bourdieu and Wacquant 1992) can be incorporated so that notions of habitus, field, social practice and cultural capital are read in association with the narratives produced. Finally, an exemplar of Indigenous knowledge and practice (see Chapter 12) such as new curriculum formats is designed that is then available for ongoing investigation and refinement. It is proposed that these principles of narrative can be incorporated into the regular curriculum to assist the learning of both Indigenous and non-Indigenous students.

In addition to the epistemological issues discussed briefly here, there is also the educational issue of ensuring that all children are aware of the full range of Australian history, including Indigenous history. Many of these matters are, however, disputed in Australia at present. Some historians suggest that antagonism between the Indigenous people and white settlers during the 1800s in particular, could be described as 'frontier wars', while others do not (Reynolds, 1982; Manne, 2003; Windschuttle, 2004). Some suggest that the removal of Indigenous children from their families to be placed in missions or with adoptive parents was well meaning, while others do not (Manne, 2004). Some are comfortable with the transfer of native title to Indigenous communities so that they have stewardship over their traditional lands, while some are not. These disputes will need to work themselves out over time, but they pose various problems as to how they are considered fairly and accurately in the primary and secondary school curriculum.

Working with all Australian children in the neighbourhood school must therefore include two strategies for inclusion. First, all children have a democratic right to be aware of Australian history in its totality and second, all Indigenous children have a democratic right to not be disadvantaged by the nature of the curriculum they encounter. There are additional matters in remote communities where the purpose of schooling may differ, the language used may be different to Standard Australian English and communities may prefer outcomes that emphasise local rather than general culture, history and knowledge. It is to be expected that the Australian nation state will have views on such issues and that from time to time, such views will contradict and perhaps override local aspirations. It must also be stated, however, that the lack of progress made in dealing with Indigenous problems and dilemmas in Australia has been shameful and cannot be excused.

Narrative as Curriculum Methodology

In adapting the work of Clandinin and Connelly, four main features are proposed to characterise participatory narrative inquiry in schools. The discussion below can be adapted by teachers as a means of formally researching their teaching and the learning of students, or for evaluating curriculum and the progress of students as learning proceeds. The steps outlined below are somewhat formal in that they

provide a framework for research, evaluation and curriculum development, but they can be read more informally as a guide to daily classroom practice as well. The four features of participatory narrative inquiry are suggested as being:

1. A movement between three sets of questions involving a transition from field experience to field texts, from field texts to research texts and finally, from research texts to the research account (Clandinin and Connelly 1994, p. 418).
2. Inclusion of the internal factors of voice and signature and the existential factors of inquiry purpose, narrative form and audience (Clandinin and Connelly 1994, pp. 423–425) to facilitate the above movement between texts.
3. Reading of narratives in association with other viewpoints including those of a critical friend and those drawn from the literature, to both challenge and inform the original experience being described.
4. Development of strategies to change and improve the situation being researched through the proposing of insights arising from narrative production and of exemplars of Indigenous knowledge and practice for ongoing application and investigation.

Step 1. Movement from Field Experience to Field Texts

Data as expressed in letters, reports, articles, notes, interviews, conversations and the like together with reflective narrative writing all describe and structure personal experience and are considered as field texts. Narratives that are written around chosen themes have a different character to other texts in that they are more autobiographical and are written within an overt theoretical framework, that is the inquiry framework proposed by Dewey and expressed in Table 11.1 above.

Specific narratives that are written or told by students are selected as being of importance to both personal and community lives. They are not crafted or reworked to ensure that predetermined issues are raised, but record points of significance to the writer as the writing unfolds. As per Table 11.1, it is recommended that the narratives involve a process of looking backwards and forwards in terms of previous and possible future experience, looking inwards and outwards in relation to personal ideas and the ideas of others that may be quite different and challenging and in considering such viewpoints in regard to current community, political and theoretical discussions that are know to exist. The narratives therefore have a definite structure, are essentially reflective and attempt to describe experience in some detail. While the writing aims to be informal and naturalistic, its reflective nature will enable links to the formal literature to be made and provide a basis for interpretation and theorising. The length of each narrative will be decided by participants as being appropriate for their project purpose.

Drafting of the narratives as field texts needs to take into account issues regarding participant voice and signature. It is quite possible that writing will tend to mask or ‘write out’ the contribution of participants so that interpretation and knowledge proposals appear to have an independent or more abstract quality, they seem to exist and to have arisen in isolation from the people concerned. Narrative writing by the

participants themselves rather than an academic researcher for instance, offers a way of overcoming these problems, but care to ensure recognition is still required. The writer needs to be visible in the text so that the personal significance of experience and the events described is clear for that person at that time. Writing should be in the first person rather than third person particularly for students. For more reflective narrative writing this becomes a difficult task, especially if the writing in a further cycle requires connections between the broader experience of others and even perhaps, the professional literature. The text needs to allude to and open up such possibilities, but not close off discussion of them.

Step 2. Movement from Field Texts to Research Texts

Following Clandinin and Connelly, field texts are converted into what can be called research texts through the identification of themes and principles that may emerge, if possible, in collaboration with a critical friend. This role can be undertaken by the teacher or academic researcher, or a person who is invited to undertake this role specifically. The world view and social and professional experience of the academic researcher and/or critical friend will impact on the analysis and different interpretations may give rise to some conflicting viewpoints. Rather than being a problem for qualitative research, this is an important aspect of the process of democratic meaning making and will be considered in further cycles of the research.

In discussing each narrative (or less formal story) with a critical friend, a process of critical questioning for self-understanding is anticipated. The discussion should provide critique of the narrative itself, as well as uncover possible insights for follow-up consideration and theorising. Questions may be of the type:

- Is the narrative consistent with the format being followed, does it raise issues of community, context, knowledge, practice, theory?
- How are the questions of narrative authority dealt with, whose voice is heard, is the narrative honest, accurate?
- Is the writing cohesive; is enough description and information provided?
- Does the narrative speak to you and open up issues for ongoing conversation?

Construction of narratives as research texts involves attention to the issues of inquiry purpose, narrative form and intended audience. The style of writing will be impacted upon by the purpose of the project being undertaken by students, by consideration of how the research texts will be interpreted later and by whom. The style of the writing is structured around the dimensions noted above so that it tends towards being reflective and challenges to current understandings are encouraged as early as possible. A delicate balance must be struck between acceptable forms of writing and the exploration of different styles so that the rigidities of current knowledge domains and the manner of conducting research itself are challenged with creative intent. This is particularly important when working with communities investigating their own practice to ensure that participants are respected and acknowledged.

Step 3. Movement from Research Texts to Research Accounts

The writing of research accounts involves a 'leap' by the teacher or researchers from the data of experience and possible interpretation to possible new understandings. This process occurs in both the physical and social sciences. At some point, the research group or community will suggest an explanation for what has occurred based on the totality of the research process to that time. The initial explanation can be very tentative and speculative, or can be more definitive because of agreement on what the data and observations mean. In either case, all new thinking becomes available for cyclic re-investigation.

At this point of the research, tentative insights into the generation of knowledge may provide possible new approaches to practice, or possible new knowledge itself for students and teachers alike. The model of curriculum and research being proposed here is not intended to formulate research 'findings' or 'truth' of the formal academic and propositional kind, but to explore possible meanings that may have been provisionally revealed and which are then available for a next cycle of investigation. It may be that participatory narrative inquiry leads to students and communities being comfortable with generalised statements concerning a particular field of knowledge or practice, but this is not necessarily the case. Democratic educational and community learning and research is a long-term process that involves many cycles of encounter, communication and experience, of redrafting and refining understandings, until such time as a community consensus can be reached.

Researching Indigenous Education with Narrative

It is now appropriate to consider whether the process of narrative inquiry is congruent with Indigenous approaches to knowledge and learning and whether as a research methodology, participatory narrative inquiry can withstand white hegemonic forms in the interests of Indigenous peoples. An overall view of the process undertaken can be seen in Fig. 11.2 below:

Describing participatory narrative inquiry in this way, as a consistent and coherent model of knowledge, learning and practice is a significant statement for Indigenous research. The property 'consistent and coherent' is taken to mean that the general approach adopted has supportive links with the recognised literature and

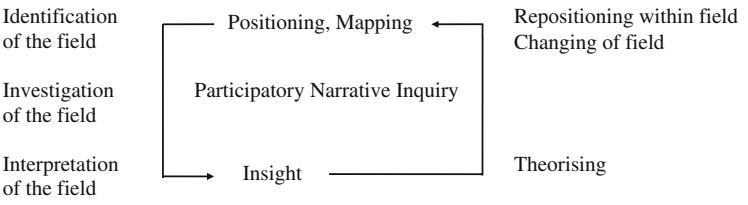


Fig. 11.2 Representation of overall research process

with the practices of the cultural settings being investigated. In epistemological terms, the concept of 'model' indicates a tentative frame to guide cognitive activity that is compatible with the political and cultural life of participants. Again, the intellectual shape is characterised by the epistemological properties of 'knowledge, learning and practice' as distinct from a more sociological position that primarily considers the social issues surrounding each of the settings involved. The properties of consistency, cognitive activity, knowledge, learning and practice are key properties of an epistemological model that can be applied across the divides of different cultural circumstances and assist the movement towards mutual understanding.

In terms of another of the key features of the model proposed in Fig. 11.1, each of the insights that emerge from the narrative process is personal for students, teachers and community in that they do not necessarily define new and fundamental knowledge. They are insights that reflect what practice has generated at a particular point in time. Describing the insights as personal does not preclude their linkage with broader concerns, in the same way that local and global issues are related, each impacts on the other, each can be found within the other. The personal nature of insight can indeed assist formulation of more general thought as ideas are enacted in practice and the relation between practice and theorising is experienced. Raising the issue of the personal in learning and curriculum sets up the possibility of substantial curriculum change for all children. There is a significant point in relation to overall educational change here and how it occurs. As well as reflecting on our own practice and position regarding the general field of the cultural basis of understanding through a systematic curriculum and research process such as participatory narrative inquiry, the field itself is altered. The link between personal and localised insight and changing the overall field from within which that insight has been generated is practised. As students and researchers begin to reposition themselves in relation to the field of education, schools and projects, the field itself begins to take on new properties because the researchers themselves have altered in their perceptions and understandings. The field is not passive, static and unidimensional, but is dynamic, evolving and multidimensional in transformation as the social circumstances including the researchers are transformed.

Conceptually, the epistemology suggested by the insights offers a very different approach to knowledge and learning to that generally encountered in schools today. Prospect for change in the interests of Indigenous knowing is thereby created. It suggests a number of features that are to be fund in different cultural settings and which are available to form the scaffold of inquiry and learning for communities and children. The concept of personal and community narrative itself is an important structure, allowing learners to begin their intellectual excursions from the point of view of their own experience, culture, understanding and aspiration, all of which are recognised and respected for their inherent value. This is the reverse of the usual process of knowledge imposition favoured by many institutions of the dominant society. There then follows an open-ended process of exploration that focuses on practice and reflection on practice over time so that learners can pursue many learning opportunities that by their very nature bring different cultural ideas adjacent to each other for experiment.

Participatory narrative inquiry therefore can form the basis of cross-cultural understanding, something that cannot happen if people and practices are kept separate. Broader ideas external to the learner need to be accessible as projects develop and are brought into relation through the role of personnel such as Elders, facilitators, critical friends or other community members. This is a long-term process requiring adept and wise professional judgement and democratic intent and a broad experience of how theory and practice relate and inform on issues every day. Finally, ideas and new knowledge are explored in practice as cycles of investigation flow, merge and are reconstituted from each other, self-regulating ideas that have been decided by participants as being important for resolution. In this way, social practice contributes to an evolving personal consciousness that can guide further practice. Such a process can be likened to Freire's 'conscientisation' (Freire, 1972; Glass, 2001) where citizens seek to reform their relationship with knowledge through a changed experience. Freire spoke of this happening at the broad social level where the structures of society constrain the activity of people and how the struggle to change society changes people as well. For the Indigenous community, liberation from the ideological strictures and sometimes racism of the settler state needs to occur at the individual, community and institutional levels.

This discussion elaborates the view of Clandinin and Connelly that narrative can be considered as both an issue in its own right (phenomenon) and as a process in its own right (research or knowing). This view is summarised in Table 11.1 below for use in schools:

Artefacts, Portfolios and Exemplars of Knowledge

In describing her own practice in writing narrative and how different narratives can link together, Conle (2000, p. 202) reported that she 'began to see the relationship among my own experiential stories as resonance. I saw parts of one story connected to parts of another story through metaphor, not metaphor as a figure of speech, but as a process of understanding'. This search for the character of one narrative and how it might relate to the character of another is very similar to the process of the detection of insight as outlined above. Conle goes on to detail how she was able to distinguish 'clusters of images' that could connect with similar ideas and currents in other stories and thereby the themes and meanings that were 'resonating' throughout the narratives could be identified for consideration. Put another way, Gubrium and Holstein (2009, p. 137) comment that for 'narrative environments, the analytic task is to discern patterns of similarity and difference within and across them'. In the first instance, the process of insight relies upon community consensus that is then investigated for credibility in further cycles of community practice.

It is now suggested that a central feature of participatory narrative inquiry that includes generalised (theoretical) ideas to inform ongoing investigation of practice, is the notion of exemplar. (For a broader discussion of exemplar, see Chapter 12.) The work of the philosopher of science Thomas Kuhn introduced exemplar as an

important idea in the process of how science develops. Writing some years after his ground-breaking work on the development of scientific paradigms (Kuhn, 1962), Kuhn sought to identify new terms such as 'disciplinary matrix' to more fully describe paradigm as the assumptions, theories and practices that are shared between the members of a scientific community and which guides their inquiry. He also used the idea of exemplar (Kuhn, 1977, p. 187) to provide added detail:

> By it I mean, initially, the concrete problem solutions that students encounter from the start of their scientific education, whether in laboratories, on examinations, or at the ends of chapters in scientific texts ... {and} at least some of the technical problem-solutions found in the periodic literature that scientists encounter during their post-educational research careers and also show them by example how their job is to be done. More than other sorts of components of the disciplinary matrix, differences between sets of exemplars provide the community fine-structure of science.

In quoting this passage, Mishler (1990, p. 422) goes on to discuss how Kuhn saw 'knowledge embedded in shared exemplars' as a 'mode of knowing' and pointed out that such 'working knowledge' is acquired no less easily than 'playing the violin, or blowing glass, or throwing pots'. In the research approach that has been developed in this paper, the notion of exemplar is incorporated as a way of describing and investigating the essential knowledge, criteria and guidelines that constitute a particular field of endeavour, enabling both lesser and more experienced practitioners to work within, describe, communicate and reflect upon that field. It is a particularly useful notion for inquiry-based, interpretive research where the outcomes are intended to encourage a deeper understanding of meaning and to provide new avenues for further study.

For communities, the putting forward of a series of exemplars over time could help clarify the theoretical ideas that need to be confronted within any particular issue and most importantly, would illustrate the significance of 'working knowledge' as the key way of dealing with such theoretical schema. The exemplars do not dominate, but guide exploration of solution pathways to dilemmas so that the theoretical and generalised becomes practical and specific. An appropriate model of knowledge and practice to guide exemplar production is shown in Fig. 11.3:

To qualify as a Kuhnian exemplar, a diagram of this type would need to establish a working procedure such that 'acquiring an arsenal of exemplars, just as much

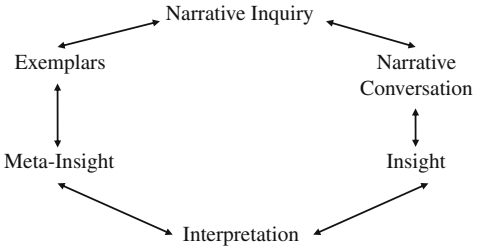


Fig. 11.3 Exemplar process for Indigenous education

as learning symbolic generalisations, is integral to the process by which a student gains access to the cognitive achievements of his disciplinary group. Without exemplars he would never learn much of what his group knows about such fundamental concepts as force and field, element and compound, or nucleus and cell' (Kuhn 1977, p. 307). The model proposed in Fig. 11.3 suggests that the central components of knowledge and learning are practice and discourse, that is that personal practice is a central aspect of knowledge production in both the local and general sense. As mentioned, the notion of 'personal' is significant in that it is often not found in formal educational programmes, but if integrated, provides an important link across Indigenous and non-Indigenous learning. Scientific investigation involves working within broad paradigms or exemplars or disciplinary matrices that embody modes of knowing and problem solving approaches that while combining theory and practice, generally proceed via practical and experiential means. This is a key idea that brings Indigenous and non-Indigenous process together.

In discussing step 1 of the narrative process above, it was suggested that the movement from field experience to field texts could involve the collection of letters, articles, newspaper reports and the like as well as the compilation of the personal narratives themselves. These items could be considered as artefacts for inclusion in an overall research portfolio. For Indigenous peoples whose tradition may be more oral, it is appropriate to include artefacts that are at least in the first instance non-written such as paintings, songs, photographs, oral stories from Elders and digital records of ceremonies if permission is granted. Knowledge, stories and local history involving sacred sites and important events as held in the memory of Elders may not be available at the time a research project is undertaken and will therefore diminish the extent and quality of the evidence collected. Whether or not a portfolio of artefacts will constitute an exemplar of practice or of knowledge is problematic at the beginning of a curriculum or research process and an exemplar may not be produced until after a number of cycles of investigation have been completed. Whether or not a portfolio does constitute an exemplar of knowledge or practice will be decided by consensus of the group concerned.

For the purpose of participatory narrative inquiry and reflective practice, the exemplars so proposed will need to begin with and be seen as being credible by communities of practice if they are to contribute to and improve practice of those using the exemplar. The curriculum and research process described above has taken narrative inquiry as its mode of investigation and has proposed a series of techniques to ensure that inquiry is systematic and rigourous, links with theory and can result in further practice that is informed by and can be critiqued by theoretical concerns. These techniques are referred to as narrative conversation, insight, interpretation and meta-insight. A further step involves the theorising of exemplars that capture the central features of the work being pursued and which provides the basis of new cycles of investigation and clarification of meaning for students and teachers. There are thus two types of exemplar, those that characterise a particular approach to practice and those that characterise a particular problem within a particular field of knowledge.

Democratic Practitioner Research

> Indigenous Australian cultures, while having some similarities, are as diverse as Europe and western Asia. This can be best explained by the placement of a map of Australia over Europe whereby Perth is overlaid upon central Spain, Broome nearly atop Britain, Darwin near Norway, Melbourne in the Mediterranean Sea near Greece and Brisbane adjacent to the Black Sea. While we loosely group all these people under the category of 'European' for specific purposes, we do not identify the Spanish, the British, the Norwegians, the Greeks and the Russians as the same people. The same is applicable to Aboriginal Australia (Foley 2007, p. 106).

Given this vastness of Australia and the large number of Indigenous peoples each with their own country, culture and language, the question of difference must be respected and recognised by the dominant society. As discussed in Chapter 10, a process of two-way inquiry learning should enable this to happen as groups of people come together to determine serious issues. The power of story is one essential principle that can link the understandings of all participants provided that they embark upon their journey with a commitment to respect different histories and viewpoints. To achieve such respect in cross-cultural settings is a difficult task, particularly in formal arrangements of education and research. What can be agreed, however, is a process of narrative construction and inquiry occurring over long periods of time that contains major events, ideas and themes while the detail can remain a little obscure, or even in dispute.

Democratic approaches to knowledge that include for example practitioner research, action research, action learning and self-study (Loughran and Russell, 2002) must be very respectful of these matters when working with Indigenous communities. Systematic and participatory narrative inquiry as described here provides a recognised framework for the inclusion of story as data and for the development of underlying ideas and principles as the community works through and with meaning. Connelly and Clandinin (2006, cited by Clandinin et al., p. 22) note that 'Story, in the current idiom, is a portal through which a person enters the world and by which their experience of the world is interpreted and made personally meaningful.' Other, more empirical methodologies of course, do not have to accept this proposition and proceed from the point of view that knowledge emerges primarily from measurable 'facts' alone. Whatever the approach teachers and researchers bring to working with Indigenous peoples, the ethical and democratic relationship must include acceptance of cross-cultural respect and protocols for adopting a framework of equality amongst participants (see NHMRC 2003). While the situation remains that many Indigenous peoples in Australia see themselves as being the most researched population in the country and are highly suspicious of non-Indigenous projects and their purpose whether practitioner or otherwise, a strict adherence to Indigenous ethical processes is imperative.

In attempting to act and think narratively and to read narratives in relation to each other, let us allow Bourdieu to have the final word. Essential to his concept of habitus (Bourdieu and Wacquant 1992) is the context within which social practices occur, the expectations, rituals, disputes, contradictions and interpretations

of practice, referred to by Bourdieu as cultural fields. In describing this concept, Bourdieu (1998, p. 32) took a very broad view such that:

> All societies appear as social spaces, that is, as structures of differences that can only be understood by constructing the generative principle which objectively grounds these differences. This principle is none other than the structure of the distribution of the forms of power or the kinds of capital which are effective in the social universe under consideration – and which vary according to the specific place and moment at hand.

Bourdieu goes on to discuss this idea of cultural field as involving a 'field of forces, whose necessity is imposed on agents who are engaged in it as a field of struggles within which agents confront each other' (p. 32). The degree of influence that each person is able to exercise depends on a field positioning in relation to others and the amount of cultural capital that is accumulated. This view of Bourdieu shows that school teaching and educational research cannot be isolated from the social storms that engulf educational practice of all types and that they must be confronted as a key aspect of the research process. For Indigenous peoples, such storms include racism, poverty, exploitation and dispossession of land and culture, still occurring on a daily basis in the midst of plenty. Democratic teaching, curriculum design and practitioner research based on participatory narrative inquiry can bring Indigenous and non-Indigenous peoples together to not deny difference, but to understand it and to move forward from its firm foundation.

Incommensurability: Prospects for Cultural Reconciliation

The discussion above highlights the central issue in regard to our initial questions, that is the extent to which communities that experience quite disparate cultural biographies in ordering their lives can appreciate the ideas and practices of others and change accordingly. Philosophical studies will be required that enable a more extensive understanding of issues such as complexity and consciousness, as well as the idealist, materialist and historical conceptions of knowledge and learning. The exemplar concept of narrative as curriculum and of research that has been created so far indicates that a useful approach could be the establishment of projects of mutual concern that focus on knowledge and learning and which enable the long term study of serious issues including personal viewpoints. On the basis that to be human is to learn and that the process of systematic inquiry flows across cultures, the exemplar process provides reasonable guidance. A major problem does occur, however, regarding the Kuhnian notion of incommensurability.

In his discussion of paradigm change, Kuhn noted that the viewpoint of scientists working within the current paradigm may be incommensurate with the viewpoint of scientists working in the new paradigm. He likened this not only to the difference between bilingualism and translation between languages, but how meaning is ascribed to the various use of language. The proponents of different paradigms may disagree on the types of problems that need to be resolved, they will use the same words but understand them differently and they 'practice their trade in different

worlds' (Kuhn 1962, p. 150). In raising the question of communication and resistance across paradigms, Kuhn also spoke of how this problem might be overcome. He pointed out that the new paradigm must demonstrate its capacity to solve the new problems that have emerged from the crisis of the old and he also argued that the new paradigm may be supported for 'aesthetic and subjective reasons' (Kuhn 1962, p. 155). In this case, the theoretical breakthroughs that are made signify a more elegant or intelligible explanation that the scientist finds attractive, even if the framework is not fully grasped by a majority of community members at the time. Kuhn (1962, p. 158) suggests that crisis in the old is not enough to generate demand for a new approach and that:

> There must also be a basis, though it need be neither rational nor ultimately correct, for faith in the particular candidate chosen. Something must make at least a few scientists feel that the new proposal is on the right track and sometimes it is only personal and inarticulate aesthetic considerations that can do that.

Here Kuhn is grappling with similar philosophical and practical problems to those that distress education and Indigenous education. Reflective practice relies on participants making linkages across ideas and procedures, linkages that build upon previous experience and which may not therefore be immediately agreed and require extensive discussion for elaboration. Problems and linkages also have historic and universal reach extending from Hegel's synthesis of new ideas, to the theory of communicative action of Habermas, to Dewey's inquiry and Freire's conscientisation and the relationship between habitus and field as proposed by Bourdieu. All of these theorists are concerned with how human knowledge occurs and changes and how we can actually think what is new outside of what we already perceive and know. While recognising the presence of incommensurability between paradigms and the difficulty of communication and understanding, Kuhn is optimistic that new paradigms of ideas and practices are possible to cope with the crisis that current approaches confront. The Kuhnian view has profound implications therefore for making progress on a major problem of incommensurability facing Australia and many other countries, that is reconciliation between the Indigenous and non-Indigenous peoples. At the moment after more than two centuries of antagonism, there has been very little and many viewpoints appear to be as deeply entrenched as ever.

While his approach is generally consistent with Kuhn's notion of scientific radical discontinuity, Bourdieu (2004) raises some issues about whether the explanation of change is detailed enough. He suggests that Kuhn proposes an essentially 'internalist representation' (p. 16) of change and that not enough attention is paid to social factors that surround each paradigm. According to Bourdieu, Kuhn puts forward the view that the revolutionary has 'great mastery of the accumulated collective resources and who therefore necessarily conserves what he supercedes' (p. 17). In taking note of this criticism of Kuhn, Bourdieu is identifying that both the external conditions and the internal basis of change as applicable to each field must be taken into account, so that the relations between factors are emphasised. In terms of Indigenous and non-Indigenous reconciliation for example, it is not enough to consider the pedagogical arrangements that exist within each classroom without

locating that experience within the broader socio-cultural arrangements. This point of Bourdieu's regarding Kuhn means that educators need a very good knowledge background and understanding of the educational field and its relations if they are to assist in changing the field. It shows a nice connection with 'two-way inquiry learning' where again the proposal involves a coming together to create something new for the benefit of all, not merely for awareness purposes. Indigenous traditions and cultural practices are respected and not swept away, but form the basis of what is new for all cultures involved.

It was not predicted at the beginning of writing this book that the process of reflective practice would open up discussion of classical theory in the manner that it has, as can be seen by the position reached on the philosophy of science and the notion of theory choice including the incommensurability of paradigms and exemplars. This may have been due to insufficient understanding of the idea of reflection, the idea of practice and the relationship between them. In other words, that the process of cyclic reflection is never ending and that whatever is proposed by some must be reworked by others in respect to their specific circumstances. New thoughts and ideas evolve as writing proceeds. Reflective practice may be assumed as being more about practice than about reflection and that reflection on practice is designed primarily to improve practice in a narrow sense. What this book has indicated, however, is that reflective practice can indeed highlight the nature of reflection itself and that it is impossible to separate the detailed process of human knowing from the detailed process of human doing. The way that humans think about their personal experience and develop guides for structuring that experience is what we call theorising and this cannot be excluded from the process of reflective practice itself. As the above discussion on the place of narrative inquiry in knowledge production and learning has shown, techniques are available to assist humans in this endeavour, techniques that appear congruent across cultural environments of quite disparate character and which make the purpose and possible outcomes of reflective practice tentative, but reasonably explicit. In relation to the field of education, Mary Beattie has a similar view (Beattie 2004, p. 12):

> Successful learning involves the development of the individual's ability to make increasingly more sophisticated connections and relations, the ability to adapt and adjust to meet new situations and conditions, to envision new possibilities and ways of being and to learn from life itself on a continual basis. The development of the imagination and of the individual's creative and critical capacities is the key to this kind of learning and to the individual's success in transforming the self, the community and society.

Communities, teachers and students will if they see fit all need to take account of the idea of participatory narrative inquiry as phenomenon and process and 'envision new possibilities and ways of being' for themselves. Bringing Indigenous and non-Indigenous knowledge and practice together in schools is at once possibility and hope, commensurate and incommensurate if we read the word and the world accurately enough.

Chapter 12
Exemplars of Indigenous Knowledge and Practice

> *What greater achievement could we bequeath to our children than a nation united, where its Indigenous people and their culture, laws and languages are central to the foundations of the nation state? (Patrick Dodson, 2008, p. 23)*

Application of a curriculum for Indigenous children that is based upon participatory narrative inquiry and exemplars of Indigenous knowledge and practice will not be an easy task. It will require considerable change to the mainstream curriculum and how schools are organised. Rather than envisaging schools as places for the reproduction of subject content and social values, the classroom is seen as supporting investigations into knowledge and social practices so that children can construct their own views and understandings over time. Major questions of interest to groups of children are tackled in relation to recognised and valued ideas and principles in such a way that they inform and not dominate children's thinking. An indicative cycle of how this might occur in a school is shown in Fig. 12.1 below. This diagram outlines the broad steps needed for curriculum planning including a validation process of community learning circles and the process of curriculum mapping for assessment purposes.

To qualify as a Kuhnian exemplar as noted in the previous chapter, a diagram of this type would need to establish a working procedure such that 'Acquirng an arsenal of exemplars, just as much as learning symbolic generalisations, is integral to the process by which a student gains access to the cognitive achievements of his disciplinary group. Without exemplars he would never learn much of what the group knows about such fundamental concepts as force and field, element and compound, or nucleus and cell' (Kuhn 1977, p. 307). How does this diagram help us move towards a more profound participation with the general 'cognitive achievements' resident within the field of education and enable an investigation of specific achievements, ideas and practices within a problem under consideration? The model proposes that the central components of knowledge and learning are practice and discourse and that personal practice is a central aspect of knowledge production.

The notion of 'the personal' is significant in that it is often not found in formal educational programmes and if incorporated provides a link across Indigenous and non-Indigenous learning. While this insight has arisen from a process of reflective

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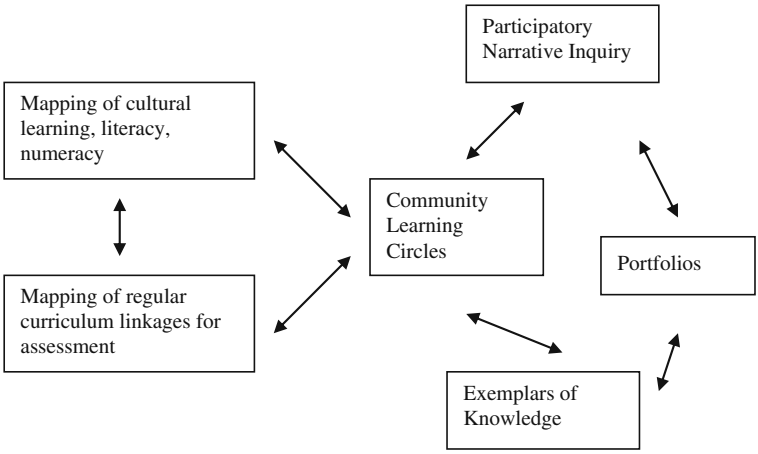

Fig. 12.1 Cycles of narrative inquiry

practice for teachers and students and it may be argued that a curriculum and research question that focused on an elaboration of abstract knowledge would begin with an emphasis on more theoretical considerations, the Kuhnian view would suggest that this is not necessarily so. Scientific investigation involves working within broad paradigms or exemplars or disciplinary matrices that embody modes of knowing and problem approaches that while integrating theory and practice proceed via practical means. The question of string theory, for example, mentioned earlier is an attempt at having the theories of physics more closely aligned with observation and experiment and ultimately to have practice verify theory.

For the purposes of reflective practice, the exemplars so proposed will similarly need to begin with and to be seen as being credible by practice if they are to contribute to and improve practice of those using the exemplar. The model has then taken narrative inquiry as its mode of investigation and has proposed a series of techniques to ensure that the inquiry is systematic and rigorous, links with theory and can result in further practice that is informed by and can be critiqued by theoretical concerns. These techniques are referred to as narrative conversation, insight, interpretation and meta-insight. A final step involves the theorising of exemplars that capture the essence of the work under study and which provides the basis of new cycles of investigation for clarification of meaning. Under this arrangement, there are thus two types of exemplars, those that characterise a particular curriculum approach to knowledge and learning and those that characterise a particular problem within the overall paradigm.

Working with Exemplars in the Classroom

Let us review the overall approach to teaching and learning before moving on to the detail of exemplars themselves. As a first step in the process of participatory narrative inquiry, the classroom teacher sets about establishing a framework of

inquiry through the negotiation of a series of projects for groups of students to undertake. This negotiation can occur in a completely open way, such as 'What would we like to study this term?' or in relation to criteria that have already been discussed and agreed with the class. The extent of the guidelines that are in place depends upon the teacher's adherence to the principle of integrated knowledge and inquiry learning, or a more restricted version of how learning occurs. The classroom may be student centred or teacher centred, or be student centred/teacher guided. Negotiated projects can be designed within a subject such as history or science, or within a topic such as World War II or ecology of the local area. Whatever the case, the classroom will be very active to enable students to interact and communicate with others, to be exchanging ideas and proposals with the teacher and to be undertaking experiments of various types as required. Inquiry learning is by its nature time consuming as students are encouraged to pursue their own ideas and to enter avenues of investigation that may have a dead end. Inquiry learning may mean that the amount of subject content that is covered may be less than in a traditional classroom, although as students become more adept at negotiating, designing and implementing projects, more content will be traversed.

As projects are completed, students will compile portfolios of their work. They can be compiled individually, or by project teams depending on which is more appropriate. Portfolios can take various physical forms, but can include photographs, sketches and paintings, musical compositions, interviews, stories regarding local events, newspaper articles, computer printouts, models, poems, written essays, diaries and letters, reports from camps and excursions and all other classroom products. These can be collated in separate folders and containers, or be photographed and stored on DVD. For example, a portfolio of materials arising from a project that investigated pollution of the surrounding areas could include photographs of rivers, plants and animals, stories of a particular landscape told by Elders, interviews with local farmers, letters sent by the class to the local newspaper and proposals for organic foods. Portfolios should not be considered as a mere collection of individual items or artefacts, but as an illustration of childrens' thinking at that particular time. They are available for discussion between teacher and students and between the school and community (see below). As described previously the portfolio is the mechanism by which the child is encouraged to look backwards and forwards, to look inwards and outwards and to look above and below. The compilation of portfolios needs to follow an agreed set of criteria which can relate to both individual students and to small groups depending on the projects being undertaken. Criteria could detail that portfolios have the following features:

- Show the range of interests and activities that have been worked on during the school term.
- Consist of authentic artefacts that have been produced throughout a learning programme.
- Demonstrate links with local community culture.
- Include both Indigenous and non-Indigenous knowledge as appropriate.

- Document engagement with important ideas and knowledge.
- Include some descriptive and reflective comment on learning progress from teachers, students and community members.

Student portfolios can be finalised at any time during term and can be returned to at any time for new inclusions. In this respect, they are never finished. As portfolios are accumulated by a class, teacher and students can begin to reflect on their composition and any themes that they can see emerging. These themes can them be detailed on a chart or matrix involving a series of key aspects regarding each theme and a number of indicators to describe each theme. An exemplar on the theme of family is shown in Table 12.1

The exemplar indicates that student projects and portfolios are often concerned with family matters. The first row shows that the idea of community arises in terms of connections with country, kinship relations, health and the issue of survival and meaning. In considering a project on ecology, for example, the portfolio of student work may have emphasised the importance of the protecting the local lakes and fish for the community, how many events over the years had involved family and community members, the important role that the environment plays in maintaining community health and how work and employment in the white township is essential

Table 12.1 Exemplar matrix 1: family

	Indicator 1 Family and country	Indicator 2 Importance of family	Indicator 3 Community events	Indicator 4 Work
Community	Connection with country	Kinship	Health	Survival, meaning
Community culture	Story by Elders	Story by Elders	Community well-being	Sharing resources
Artefacts	Newspaper article	Photographs	Interview on film	Implements used
Ideas and knowledge	Place of river in community	Influence of family in community	Indigenous food	Interacting with white community
Links to curriculum	Local history Geography	Local history	Science	Local history
Reflection	Discussion with Elders	Discussion with community members	Interview with retired nurse	Recorded interview with employer
Making public	Parent–teacher night	Display at school	Feature article in newspaper	Article in employer newsletter
Implications for school curriculum	Ensure projects involve: family, kin, events and work issues	Suitable for history, geography, science	Incorporates: literacy, numeracy, ICT	Key ideas: Family Timelines Rivers Drought Work Tolerance

for the economic and social well-being of Indigenous people. Each aspect can be detailed in this way. A detailed example regarding the 'ideas and knowledge' row from Table 12.1 is shown in Table 12.2.

Each of the four aspects of the vertical axis of Table 12.2 contains a brief explanation of their relevance and importance for the local community. The various rows provide a series of examples for each item. Row 1 concerns the significance of the river such as its role as a sacred site for community gatherings and ceremonies, the damage caused during times of flood and consternation during times of drought, its importance for sustaining animal and bird species and how it acts as a point of comparison in relation to communities located elsewhere. At this point, it is now possible to begin to link the Indigenous knowledge so displayed and which has arisen from the knowledge, culture and interest of the students with the knowledge of the regular school curriculum. Each cell of the exemplar has a link to features of literacy, numeracy and information and communication technologies (ICT). Row I shows that the Indigenous examples given have clear links with history, kinship maps, an atlas of local bird varieties and the utilisation of technology for communication between communities. This begins to detail the extent of two-way inquiry learning that has occurred so far and provides the basis for an extension of project work into more challenging domains. Indigenous children in observing the appearance of a particular species of parrot in the bushland nearby and listening to stories from Elders regarding why the birds are coloured in a particular way can then be encouraged to investigate parrot taxonomies and what is known about them from the recognised literature. Criteria for the discussion of exemplars would extend those that apply to portfolios and could include the following:

- Relate to a particular community theme.
- Consist of authentic artefacts that have been produced throughout a learning programme.
- Demonstrate links with local community culture.
- Document engagement with important ideas and knowledge.
- Describe in matrix form the essential components of Indigenous and non-Indigenous knowledge involved.
- Include some descriptive and reflective comment on learning progress from teachers, students and community members.
- Correlate with recognised curriculum content.
- Consider learning as public and display through exhibitions and learning circles.

An example of a similar approach to the exemplars of knowledge process above has been compiled by the Bureau of Meteorology in Australia. Table 12.3 documents the relation between the seasons in Northern Australia and the occurrence of particular plants and animals (BOM, 2008). The chart shown is a summary of that provided by the bureau and refers to a temperate region in the south eastern corner of the Australian mainland. The local Indigenous people identify six different weather phases that are based on weather patterns and animal and plant behaviour. The area

Table 12.2 Exemplar matrix 1: family – ideas and knowledge

Ideas and knowledge	Explanation	Example 1	Example 2	Example 3	Example 4
Place of river in community	Sacred site for community gathering Drought and flood Preserving habitat	Ceremonies have been conducted for many centuries Literacy: recording of oral history	Washing away of community during great flood Numeracy: kinship map of families	Declining numbers of bird species Literacy: compiling atlas of local bird species	Comparing land features with communities elsewhere ICT: e-communication with communities
Influence of family in community	Role of Elders Individual family history Sport, music and cultural events	Important knowledge held by Elders Literacy: collection of local stories	Place of specific families in local community over time Literacy: writing biographies	Participation in range of cultural events Numeracy: graph participation in cultural activity	Elders working with young people in schools ICT: Web pages, video, photographs of sessions with Elders
Indigenous food	Importance of food Indigenous to area Uses of local plants New industries	Diet of community over centuries Numeracy: charting foods over time	Medicinal plants Numeracy: linking chemical makeup with other medicines	Development of new foods, activities Literacy: posters of possible crops, aquaculture	Comparing different foods and locations ICT: email between communities to share food knowledge
Interacting with white community	Indigenous organisations Cultural events Tensions	Role of health centres, co-ops, schools, etc. Literacy: photographic history of local organisation	Participation with sport, music, civic events Literacy: radio programme with local identities	Issues regarding school, employment, recreation Literacy: interviews with Elders, police, youth workers	Strategies fo participation. ICT: video conference with communities

Table 12.3 Indigenous weather knowledge: Brambuk National Park (summary only)

	Autumn	Winter	Pre-spring	Spring	Early summer	Late summer
	Cool mornings, warm, still days	Bleak mists, freezing winds, rain	Wettest months, dramatic weather changes	Warmer days, weather still tempestuous	Weather stabilises, heat, dry days	Hot, dry days, surface water scarce, high bushfire risk
Reading the country	Birds form flocks and migrate north Gum trees flowering	Powerful owls lay eggs Fungi and orchids bloom	Many birds nesting First wildflower	Eels migrate downstream Bush bursts into life	Butterflies chase in warm sun, wildflower displays	Young birds and mammals emerge
A spirit of connection	People gathered in villages Layered cooking ovens	Possum skin cloaks and ornaments made	Baskets being made Women digging food	Meetings of many people Use of message sticks	Peoples move back to plains, sweet drinks made from gums	Herbal medicines, star formations and creation stories
Deep time	550 million years, over 6m of sediment laid down	150 million years ago, earth made strata	100 million years ago, 3 rivers begin	40–50 million years ago, inland sea	4–5 million years ago, volcanic eruptions	Ice Age, 25 000 years ago
Changes wrought by human hand	Burning of land to uncover food Settlers caused widespread fires	Rock shelter located Animal motifs in rock art	Burnt grass, dug up tubers Introduced sheep eat grass	Ochres mined, traded, used in ceremony	Huts, canoes, bowls made using axes	Hunting pressure on possums and kangaroos
Management and cultural fusion	Burning managed between Indigenous people and park rangers	Ecological water flow management	Efforts to restore vegetation	Cultural and sporting events.	Aboriginal involvement in park management	Flora and fauna protection practices

is now a national park and contains a number of endangered species of plants. This is an excellent model for curriculum development and the bringing together of Indigenous and non-Indigenous knowledge for mutual benefit.

Curriculum Mapping: Community Learning Circles

To maintain support for and integrity of the participatory narrative inquiry curriculum, it is imperative that members of the local Indigenous community be involved at all times. If we have learnt anything about Indigenous education in Australia, it surely concerns the total participation of local communities in school life. This is a democratic process, an acceptance that there is an Indigenous frame of reference or state of being that is not the same as European understanding.

For non-Indigenous educators, this different way of viewing the world may be impossible to access. How islander people navigate across the seas, or how desert people are never lost seems a mysterious process. Indeed, as one example, the concept of wilderness may be entirely metropolitan. These are matters of essence and culture involving how humans perceive their place in the universe. Indigenous viewpoints see everything connected with everything else and a literal connection of the living with the land. These connections must be maintained at all times. Australian schools as elsewhere have found it extremely difficult to respect these cultural relationships, let alone construct curricula that embody such principles every day. There is an argument, however, that Indigenous ways of knowing are good education appropriate for all children.

As a major theme running through these pages and as a first step to cultural inclusiveness, schools need to establish democratic structures that enable Indigenous families, children and Elders to participate as respected equals in the learning process. Wherever we live, there will be Indigenous co-ops, health centres, education houses and local identities through which contact can be made. To see formal education as a community partnership involving all stakeholders is surely not a radical idea. In Sweden for instance, a system of study circles (Brophy, 2001) has existed for over 100 years. This is seen as a form of liberal education and a means of strengthening democracy for the entire country. Swedish study circles have over two million participants each year and arrange about 200 000 cultural events annually. They follow the same tradition of the folk high school established in 1868, where programmes are decided by the people according to current interests and needs. In general terms, study circles can be envisaged as a systematic process for public dialogue and community change. They usually comprise small groups who meet together over a period of time, who set their own procedures and who may engage a facilitator to assist the discussion. They often begin with personal stories and accounts from which themes, ideas and ways of proceeding emerge.

It is not intended that one view will dominate the outcomes of a study circle. Rather, the circle reaches out to all participants so that knowledge and experience is shared and a range of possible pathways can be explored. The study circle seeks to

reach consensus and a heightened respect and does not impose a particular will. In working with Brazilian peasants, the educator Paulo Freire used what he termed culture circles as a means of pursuing literacy. Small groups of peasants would begin by discussing what was important to them, such as fresh water for the village and from that, Freire would introduce new ideas and written forms. Study circles have a more recent history in the United States, but they have been used there to consider race relations, poverty, education and many other community issues. In a country that is anticipated to be 50 percent non-white by the middle of the century, the United States has a vested interest in creating healthy communities and in maintaining its democratic heritage.

Indigenous peoples in Australia are also familiar with this type of organisation. In attempting to make progress on reconciliation matters, a number of learning circles were established to bring Indigenous and non-Indigenous peoples together for cross-cultural understanding. Key features again included a sharing of experience and explanation through story telling and the identification of common themes arising. There appears to be therefore a range of agreed principle and successful practice from Sweden, the United States, Brazil and Australia involving a study circle process. It seems to be most appropriate when Indigenous issues are involved and beginning with a construction of local narratives, can lead to the respectful resolution of problems.

It is very realistic to suggest that each school or group of schools in the urban, regional and remote areas throughout Australia undertakes to establish a learning circle with their Indigenous neighbours. Which name is best to describe its work will need to be agreed. A learning circle, however, could concentrate on the broad parameters of curriculum, ensuring that Indigenous ways of knowing are included.

There are many difficult social and educational issues that will need to be discussed, probably over extended periods of time. Indigenous forms of mathematics, of science, history and culture will be introduced as Elders see necessary and it is shown that the engagement is serious. There will be a sharing of language. This is a two-way process of inquiry and communication as both cultures interact and learn from each other. Depending on the circumstances, a learning circle exists inside other structures. For schools, there are constraints of time and regulation including the need for formal assessment. The purpose of the learning circle is, however, to go beyond such barriers and to work with other structures that are enduring, democratic and respectful. The learning circle provides a structure to enhance human agency, not to restrict it.

Exemplars, Literacy and Numeracy

A major purpose of the development of exemplars of Indigenous knowledge and practice is the mapping of regular curriculum so that the monitoring and assessment of Indigenous children in literacy and numeracy can proceed. If exemplars can weaken the dominance of non-Indigenous knowledge in mainstream schools

Table 12.4 Exemplar matrix 2: environment

	Indicator 1 Connections with country	Indicator 2 Connections with family	Indicator 3 Principles of living	Indicator 4 Indigenous philosophy
Community	Sacred sites and ceremonies	Historical events	Harmonious relationships with landscape	Existence involves cycles of, from, with and to the land
Community culture	Stories from Elders	Role of certain families in community	Experience country at all times	Everything connected with everything else
Artefacts	Photographs	Newspaper articles	Songs and ceremonies	Themes expressed in paintings
Ideas and knowledge	Behaviour of fish in river	Seasons related to plants and animals	Only take what is necessary for sharing	Indigenous always been present at this location
Links to curriculum	Short articles in English	Observing weather in science	Charting values in social studies	Evolution and Dreaming in science
Reflection	Discussion with family	Discussion with Elders	Video of Indigenous cultures	Discussion with Elders and teachers
Making public	Class display at school	Letter to editor	Exhibition of art works	Dance group at local event.
Implications for school curriculum	Include Elders as much as possible	Project outcomes to be circulated widely	Incorporate art, music in all project work	Link local and general themes at all times

and garner more respect for Indigenous culture and knowledge, then a foremost aspect of discrimination in the education system will be seriously undermined. To demonstrate how assessment can be included in the narrative process, Tables 12.4 and 12.5 below show an exemplar regarding an investigation of the physical environment, while Tables 12.6 and 12.7 outline the occurrence of literacy and numeracy throughout the exemplar. This approach assumes that Indigenous families have accepted two-way inquiry learning for their children and that beginning with Indigenous experience and knowledge links to the knowledge of the recognised white curriculum. Under these conditions, the learning and cultural know-how of children is monitored by school, Elders and community members combined.

It is to be expected that Indigenous children all over the world will make connections with the environment in virtually all the project work they undertake. It may be expected as well that many non-Indigenous children will show a similar desire to take care of the land given the emphasis that it has received over recent years and the importance of climate change and global warming. The environment therefore offers considerable opportunity for two-way inquiry learning and the discussion of action that can be taken by schools and Indigenous and non-Indigenous children together. Climate change and global warming in particular are debated strenuously worldwide

Table 12.5 Exemplar matrix 2: environment – ideas and knowledge

	Explanation	Example 1	Example 2	Example 3	Example 4
Behaviour of fish in river	Large fish created river by their foraging, scavenging	River is muddy not polluted due to action of fish over centuries Literacy: poster of fish species	Species decline as levels drop due to drought Science: record river levels over time	Communities camp where fish in ample supply Literacy: diary of camp site details	More or less species observed in relation to food chain Science: detail of food chain
Seasons related to plants and animals	Activity of animals and changes to plants indicates new seasons	Wet and dry seasons means animals and plants come and go Science: chart temperature, rainfall and species	Disappearance of species shows that country is stressed and changing English: letter to newspaper	Communities shift camp in different seasons Literacy; interview with Elders	Less water and flooding means less food at certain times Computers: search for information from elsewhere
Only take what is necessary for sharing	Living in harmony, not exploiting country	Do not over fish in small creeks or lakes Science: monitor fish stocks	Allow for regrowth of plants for fruit and vegetables Computers: search for organic farming techniques	Respect landscape rather than destroy it English: essay and photographs on ecology	Share knowledge of waterholes Geography: map locations for display
Indigenous always been present at this location	Indigenous people have not come from somewhere else	Land is mother at this location for our people English: books for evidence around the world	Stewardship and conservation of land Science: projects to maintain local areas	Close connections with local animals and plants Computers: Internet entries	Teach children about holistic view of Indigenous world Computers: web site of all information

Table 12.6 Mapping environment exemplar and curriculum: literacy

	Writing	Reading	Speaking	Painting	Music
Interprets, responds to range of texts	Journal entries regarding stories	Discussion with teacher about likes, dislikes	Class presentation of theme	Expresses family history through drawing	Participates with song and dance
Understands features such as plot, visual cues	Imagines different outcomes	Identifies key moments in story	Discusses main ideas of film	Includes important landscape areas	Changes words to emphasise local event
Produces texts for range of audiences	Story for brothers and sisters	Uses library for background information	Creates tape for radio programme	Scans painting to web site	Makes DVD of stories for Elders
Knowledge of language structure	Uses appropriate grammar	Explains meaning of words	Incorporates pause, emphasis in speech	Integrates cultural symbols	Able to feature rhyme and rhythm
Acts on feedback to improve ideas	Redrafts stories	Discusses new ides in small groups	Team member of debate	Works with draft sketches, design	Rehearses specific, general aspects
Use of multimedia to enhance meaning	Word processing to check spelling	Uses web resources	Watches videos of poets and authors	Incorporates different styles	Composes, edits with computer programme

Table 12.7 Mapping environment exemplar and curriculum: numeracy

	Number	Shapes and patterns	Algebra	Problem posing and solving	Ideas and dialogue
Representing quantities	Height, length of scrub, trees, paths	Finding geometrical shapes in nature	Trial and error for simple relations	Behaviour of plants, animals	Charting climate change impact on country
Estimation	Speed of river flow	Amount of water, sand in different containers	Symbols for local animals, plants	Perimeter and area of objects	Timeline of local cultural trail
Interpretation of data	Contours of local maps	Meaning of graphs regarding populations	Ecology studies of lakes and rivers	Discussion of tables and charts	Gathering new data for local community
Constructions	Use of compass for school orientations	Investigation of polygons	Relation between angles and shapes	Designing different models of flight	Mapping new Indigenous garden
Familiar, unfamiliar problems and methods	Development of different scales of measurement	Strength of geometrical structures to bear weight	Working with very large and small	Charting depth of river	Comparing star charts with local stories
Use of multimedia	Finding data sources on web	Graphical package for area, volume	Use of calculator	Spreadsheet for study of graphs	Proposal for database

with widely differing opinion. This means that knowledge is not predetermined and children have an excellent window of opportunity to participate alongside parents, scientists, politicians and communities. Problems of environmental degradation and of the economic and cultural usage of land concern Indigenous peoples around the world opening up immediate reasons for solidarity and for the exchange of ideas and proposals. Exemplars regarding the environment will therefore embrace as a matter of course Indigenous principles of living and philosophical understandings of society and country that will bring students of all ages into the great debates of humankind.

Some educators may be troubled by the possible coexistence of Indigenous and non-Indigenous knowledge in the school curriculum. It may be thought that the former is intended to replace the latter, or that the white curriculum is to be Indigenised. In the previous discussion of inquiry learning, however, the point was made that the role of the school is not to indoctrinate, to transmit the correct version of knowledge, but to open up ideas for continuing investigation and for the creation of new ideas by the young. A teacher is not attacking science if a local story tells of how an escarpment was formed by the burrowing of animals, while another explanation relies on an earthquake that was recorded centuries ago. Both the cultural and scientific can reside in the same classroom without one dominating the other and the existence of both encourage children to think broadly about their environment. There is only a problem here if schooling is seen as only considering one accepted viewpoint and that different viewpoints are weakened and not strengthened in conversation with each other. A school that has a public and democratic philosophical view of knowledge and learning will enable all students to delve into the mysteries and contradictions of human experience and will not promote the dominance of one over the other. Constructing the exemplar matrices in this way makes it clear that a flexible and narrative inquiry approach to teaching and learning will generate many connections between Indigenous and non-Indigenous knowledge so that a mapping procedure for monitoring and assessment can occur. Teachers need to be constantly noting such connections and documenting the project work that is being done. Tables 12.6 and 12.7 show specific aspects of literacy and numeracy in the vertical cells and give some illustrations in the horizontal cells.

Incorporation of Story Telling

When the draft exemplars of knowledge and practice are available for discussion by community learning circles, it is to be hoped that Elders and other members are willing to enlarge what has been recorded through story telling. These are stories that not only describe events and provide additional information to what has been ascertained by students thus far, but stories that have a philosophical basis to local Indigenous life. They could provide alternative explanations to modern science for example. The exemplars do not merely describe, but open up topics for ongoing investigation in ways that were not immediately obvious before, they challenge

students to think and act more broadly. Connell (2007), for example, discusses how humans come to know not only in a general sense, from the top down, but in a specific sense, from the ground up. He suggests that in the social sciences 'one tries to arrive at a configuration of knowledge that reveals the dynamics of a given moment of human history' where generalisations have stronger power 'if they can be linked to the characteristics of the context *within* which they apply' (p. 207). Generalisation is an extremely important idea in the modern world, where it is argued that predictions and patterns are possible. He goes on to suggest that an approach or theorising that works from specific circumstances, attempts 'not to subsume, but to clarify, not to classify from outside, but to illuminate a situation in its concreteness'. The inclusion of Indigenous story telling in the narrative process can have exactly this intent and outcome, its role being to clarify and illuminate rather than to dominate the emerging thinking and understanding of the child.

Sveiby and Skuthrope (2006) provide extensive detail regarding stories from the Nhunggabarran people of New South Wales, Australia. As one example, they tell the story of two birds, the crane and the crow and a fight they had over fish. The crow that was initially white fell on some burned grass during the fight and rolling over and over, turned black. The crow waited until the crane was asleep and in an act of revenge, stuck a fish bone in the crane's mouth. The crane tried to cough the bone out of its throat but could only manage 'gah-rah-gah' sounds that it continues to make to this very day. Sviby and Skuthorpe suggest that stories such as these can be interpreted on four levels. The first level is mainly concerned with outlining some main features of animal behaviour particularly for the young child. At the second level, the story indicates rather than tells explicitly the relationship that exists between animals and people. This can involve the sharing of knowledge and what happens when you act incorrectly. Thirdly, there is the relationship between your own community and the broader surroundings. Not all stories have a fourth level, but those that do can take up more metaphysical issues such as the relationship with spirit ancestors. This approach to story telling is often seen in non-Indigenous communities as well, where it is generally agreed that important ideas, values and cultural practices are embedded in the story and through constant telling, retelling and discussion with adults, the young can come to understand meaning and behaviour. Some Indigenous communities may be willing to share some stories with non-Indigenous children in school, but many may have been lost over time and others will be sacred and reserved for Indigenous children only.

Prospects for Narrative and Exemplar Curriculum

In reflecting on the above discussion, a significant question arises as to whether exemplars of knowledge and practice for participatory narrative inquiry involving Indigenous and non-Indigenous children in schools should be seen in primarily pedagogical content knowledge or epistemological terms. How this question is viewed will depend upon the political and educational conditions that exist at each

school including the background and experience of the teachers concerned. It may be thought that before other steps can be taken, a more substantial base of Indigenous knowledge needs to be encountered by staff and students alike. With this approach, the exemplars will tend to emphasise content knowledge and may involve students in more conservative approaches to schooling. It is important that staff and students do have contact with historical events as well as more contemporary Indigenous issues and outlooks, but these can either be seen as the foundation or the backdrop for teaching and learning. A second approach attempts to integrate Indigenous perspectives across all areas of the school curriculum so that all staff and students benefit from Indigenous perspectives in relation to all fields of knowledge. Under these conditions, the exemplars will emphasise an epistemological world view and will rely on the teacher to integrate a two-way inquiry and open-ended approach to learning and knowledge at all times.

According to the idea of 'grounded theory' discussed above by Connell, the essential feature of participatory narrative inquiry and exemplar curriculum is that the learning process in schools begins with and respects the culture and knowledge of local Indigenous communities. It works from the ground up. It does not begin from the top down, with the imposition of non-Indigenous culture and knowledge that has been valorised from outside the community, perhaps at another place and time. This knowledge is not rejected, but informs projects and investigations, particularly in their initial stages. Each cell of an exemplar matrix results from the documentation of direct and indirect experience of students. It sets up and establishes a procedure by which Indigenous culture and knowledge are respected as an accurate way of describing the world and by which two-way inquiry learning can proceed with non-Indigenous knowledge. In combating many difficulties of the colonising curriculum, however, it will be necessary to devise a flexible range of strategies that take into account the social and political conditions that exist and how the different forms of knowledge can interact.

From the point of view of beginning learning from local considerations, Attwood (2005, p. 189) notes the stance of the former Australian Council of Aboriginal Reconciliation to 'sharing histories' in the following way:

> Whereas 'shared history' largely conceived of history as a body of historical facts presented as a singular story compiled by an anonymous narrator, 'sharing histories' tended to regard history as a collection of narratives told by differently situated and positioned peoples and hence is contingent on who the teller is, what their purpose is, the context in which they tell their story and who their audience is. In conceiving history in this way, 'sharing histories' highlighted the conjunction between past and present as the ground upon which all history-making occurs. It thus countered the tendency of academic history to create a sense of distance rather than proximity between present and past.

The concept of 'sharing history' as described here has distinct links with two-way inquiry learning as discussed earlier and is clearly a respectful, communicative, mainly qualitative approach to knowledge that remedies the purely empirical, logical positivist view found in many schools. It offers a democratic approach to issues when students have different cultural backgrounds and interests. It combines both oral accounts and personal experience with those that are recorded and described in

various ways. For example, in conducting an ecological investigation of a coastal area, a school can draw upon family stories, newspaper articles, photographs, maps, detail of food sources and comment from the local historical society. It can undertake experiments regarding fish stocks, dune erosion and intertidal zones, as well as utilise the Internet for evidence from similar situations and scientific opinion from around the world. Much of the local detail will not be available or be documented anywhere else but through the stories of parents and other community members, stories about high tides, whale behaviour, the shape of the coastline before human intervention, the sinking of fishing boats and the loss of life of friends and relatives and the quantities of fish caught off the bridge over the past 100 years. This is a respectful combination of evidence from personal and scientific sources from which the children concerned will write up their own interpretations as they see fit.

Encouraging different viewpoints and evidence to be recognised from different cultural perspectives is a two-way approach to inquiry learning that can flow across the curriculum. Such an approach can also be adopted across all subjects of teacher education programmes so that all new teachers have direct experience of constructing environments that will be supportive of all children in all subjects. A 'sharing experience' or 'two-way inquiry' epistemology of curriculum emphasises personal and localised learning for all children from different cultural backgrounds, rather than the imposition of preordained subject content; the latter should inform but not as doctrine. From a progressive standpoint, schools and universities need to combat the reproduction of dominant colonial culture and values and set about the production of new personal knowledge, ideas and proposals emerging from investigations of major social practices. It is this critical approach to experiential learning rather than an acceptance of content that establishes the conditions for change. School students from a very young age to those in their senior secondary years have unbounded capacity to formulate their own interpretations of the social and physical worlds taking into account their own experience, imagination and creativity in the context of broader ideas and outcomes that they can consider from without their neighbourhood. It allows local stories to be the precursor of more universal concerns and ongoing investigations as portfolios and exemplars are compiled and are discussed and critiqued by community learning circles.

Indigenous communities face diverse circumstances in urban, regional and remote locations and the relationships that have been formed between white and black communities and white and black cultures. Globalisation and communication technologies in particular are changing the definition of remote with events and debates occurring at one place being instantly communicated to other places worldwide. There are important decisions therefore that local Indigenous communities must face in determining the extent of their traditional lifestyle and what compromises need to be made with dominant influences. Educational choices include the building of schools separate from the mainstream, or schools that combine in some way dominant and dominating cultures. A careful construction of participatory narrative inquiry and two-way inquiry learning as described above can be adapted for most circumstances. If this is done, it should not be necessary for children to be sent away from their homes and communities to schools and boarding schools

elsewhere. All children deserve a high-quality education wherever they live and in the stronger economies with established schooling systems and well-qualified professional teaching services, this should not provide insurmountable difficulties.

It is crucial that a curriculum based on student, family and community narrative has a strong cultural base. It will be impossible to develop exemplars of knowledge and practice otherwise, or at the very least, the exemplars will be superficial and not lead to significant ideas and avenues for exploration. A weak cultural base will also make it difficult to identify the linkages between Indigenous and non-Indigenous knowledge and complete cycles of knowledge production that begin with current Indigenous understandings and generate new Indigenous understandings. Teachers do the best they can under these arrangements, which is what happens in every classroom around the world every day. Indigenous and non-Indigenous teachers need to work together sharing their experience and refining their approaches to teaching and learning as their collective experience accumulates. If Indigenous stories, the participation of Elders and the formation of community learning circles to review and revise curriculum is not as extensive as would be liked, then each school and class works with what is available. As noted by Kuhn previously, as many exemplars as possible should be produced over time, so that the mechanism for communication engages all participants in expansive and challenging ways.

In developing participatory narrative inquiry for schools, care has been taken to ensure that its structure can be strongly defended regarding its philosophical and theoretical base and that its application under diverse circumstances is realistic for teachers and students. However, inquiry learning itself has not had an easy passage over the years in its battle with more conservative approaches and to be successful like any other strategy, it needs to be the major feature of a curriculum across all subjects and extending over long periods of time. For Indigenous students, narrative inquiry will need to be encountered everywhere, be strengthened year by year and result in many exemplars being produced year by year. Linking key aspects of Indigenous knowledge as identified and detailed in the exemplars requires a deeper understanding of integrated knowledge and learning than is normally found in conservative schools and will necessitate very innovative responses by teachers to connect and extend perception and conception. Participatory narrative inquiry demands that teachers and community interpret schooling as a means of respecting, generating and transforming culture and knowledge, not merely reproducing the values and practices of conservative world views. This is an extreme challenge for Indigenous and non-Indigenous peoples the world over.

Chapter 13
Ambiguity and Indigenomathematics

The two fundamental objectives of education (preparing for citizenship and stimulating creativity) can hardly be achieved, in a constructive way, by a traditional, formal, catechistic mathematics education, which frequently leads to individual annihilation (Ubiratan D'Ambrosio, 2008, p. 94).

Mathematics seems to occupy an influential and somewhat mysterious place in our society. Exactly why this is so is difficult to discern. Perhaps what we have called mathematics is a cultural form or meme stirring throughout body and mind as one of the central components of the universe akin to matter, energy, information and consciousness. It is thought to describe the essential truth and relationships of the natural world, has elegance and beauty as a pleasure to behold, but can also be beyond the reach of many. Schools for some reason best known to themselves have decided that their role is to pass on preset mathematical procedures without the need for students to investigate their underpinnings or possible new variations. This can happen in other subjects but not mathematics. For educators interested in democracy, equity, critical pedagogy and indeed, making the field of mathematics open and accessible for all children regardless of background, the oppressive and dominating nature of school mathematics needs to be transformed into a topography of personal inquiry, expression and communication. School mathematics is a paradigm case of assimilation for all non-dominants groups and of the incessant colonisation of culture and knowledge by settler imperatives.

In the end, a philosophy of mathematics is a bit like morality. There are different views that may be difficult to describe and explain, justification can be dismissed by others and rather than being considered in relation to a baseline for living, they are the baseline. One person can argue that it is wrong to inflict pain, while another can argue that it is not wrong or can be right under particular circumstances. One person can argue that a Platonist view of mathematics is correct, while another can argue that mathematical ideas are constructed like all other forms of knowledge. It may be acceptable on some matters for a pluralist view of human activity to hold, but on other matters society can establish broad frameworks of practice and also agree that such frameworks should be enforced. The school curriculum is one such enforceable framework of practice involving significant philosophical and moral decisions about

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how humans view themselves, how they relate to each other and how they envisage the nature of knowledge and learning. To emphasise a particular view on whether mathematical knowledge is present in the universe and is discovered, or is subject to human creativity and is invented, is a moral and philosophical question.

Roger Penrose is Professor Emeritus of Mathematics at Oxford University and has written extensively on the nature of mathematics and physics. He has worked with Stephen Hawking (2001) regarding human understanding of the universe including the properties of black holes. Penrose is well known for his view (Penrose, 2004, p. 1029) that 'the more deeply we probe Nature's secrets, the more profoundly we are driven into Plato's world of mathematical ideals as we seek our understanding'. He goes on to ask:

> But are mathematical notions things that really inhabit a 'world' of their own? If so, we seem to have found our ultimate reality to have its home within that entirely abstract world. Some people have difficulties with accepting Plato's mathematical world as being in any sense 'real' and would gain no comfort from a view that physical reality itself is constructed merely from abstract notions. My own position on this matter is that we should certainly take Plato's world as providing a kind of 'reality' to mathematical notions, but I would baulk at actually attempting to *identify* physical reality within the abstract reality of Plato's world.

Penrose is saying that there is a world of mathematical ideals, but human reality is not made only of them. While there might be an idea of 'rectangle' abstracted from human experience, it is another matter to try and identify the notion of 'rectangle' taken from 'table' as being present in an abstract world. Penrose advocates a 'three world' theory comprising the Platonic-mathematical, physical and mental and where there is a cyclic process involving all three with each world being founded on its preceding world. Why this should be so is difficult to see and whether or not humans are actually interacting with a world independent of their experience is impossible to confirm. This type of approach appears to be similar to that developed by Popper (1986). He proposes World 1 as the physical universe of truth and reality that we may inhabit but not perceive, World 2 consisting of subjective perception and World 3 which is the totality of human objective products such as books, tools and theories. Like Penrose, the three worlds are interconnected with, for example, ideas being generated in World 2 but stored in World 3. These philosophical deliberations about whether humans exist in direct relation with reality, or whether there is a mix of abstract and actual worlds that are hidden and exposed in various ways, impact exactly on how knowledge and learning are considered and organised in schools. It is unusual for such discussions to inform school mathematics, but its implicit outcomes are witnessed every day.

In a challenging conversation on the notion of creativity in mathematics, Byers (2007, p. 28) defines ambiguity as involving 'a single situation or idea that is perceived in two self-consistent but mutually incompatible frames of reference'. He provides the simple example of the equation $2 + 3 = 5$. Teachers may explain the equal sign in terms of 'balance,' where 2 kilo and 3 kilo weights placed on one side of a scale will balance with a 5 kilo weight on the other. Conversely, children may see the equal sign in terms of an operation, where there is a process of adding

2 and 3 to make 5; there is a process and object relationship being established. The equation is ambiguous in that two frames of reference are being used through an act of human understanding. This is an important point, that mathematical acuity is enacted rather than received. Byers continues this theme by noting that 1 divided by 3 equals 0.333. However, if we then multiply each side by 3, the equation becomes 1 equals 0.9999. Does this mean that 1 can equal 0.999? He suggests the following 'proof':

Let	$x = 0.999$
Then	$10x = 0.999$
Thus	$9x = 10x - x$
	$9x = 9.999 - 0.999$
	$9x = 9$
	$x = 1$
	$1 = 0.999$

This seems to be a paradoxical if not wrong result. Whether or not the outcome is accepted depends on the notion of summing infinite decimals. There is a question of human understanding of a valid process, rather than mere calculation, so that what appear to be contradictory ideas can be linked together. The ambiguity is resolved through this understanding or creativity. A similar process can be seen in other areas of mathematics, for example, whether the square root of 2 is what is called a rational or irrational number? Whether the square root of 2, or the square root of -2, does not exist, or exists in one of the abstract worlds noted above, is significant in how humans have comprehended the natural universe to this time. Whether such ideas should be included in the curriculum for school mathematics is another matter.

It is not intended that this discussion of mathematics and ambiguity should result in truth being seen as completely relative and arbitrary. When Penrose says that truth in mathematics goes beyond mere formalism, he may be arguing for his third world. But to even consider or think about such a proposal means that a creative act has been involved, to leap beyond the apparent with imagination and inspired thought. It may be that humans need a continuing and integrated investigation of mathematics so that the Platonist, formalist and constructivist approaches can be combined at all times as we struggle to reach consensus on key ideas and practices in the twenty-first century. At one point, there was agreement that the Earth was flat, but this has now been transformed into a new agreement, for the time being. At one point, it was thought that the universe was static, but now it is thought to be expanding. (Einstein considered the static universe to be his greatest mistake.) If at a future stage many billions of years away, it may be that the expansion has occurred to such an extent and the distances between objects is so vast that the night sky is completely black and new theories of humanity and of physics will emerge. Ambiguity and discontinuity does not detract us from our understanding of what is included in the nature of mathematics, they provide a richer and stronger basis for our experience, reflection and understanding throughout the millennia.

Ambiguity and Indigenomathematics

The notion of ambiguity as developed by Byers above – a single situation or idea that is perceived in two self-consistent but mutually incompatible frames of reference – seems to link nicely with the concept of Indigenomathematics. Here, we have school mathematics being interpreted from a very strong yet tacit frame of reference often excluding groups of students who may prefer a different frame. It can be debated whether the frames of reference are 'self consistent' but to an outsider, they do appear to be 'mutually incompatible.' It could be argued that Indigenous peoples do not think mathematically at least in part in the same way as non-Indigenous peoples, a major problem when Indigenous children attend non-Indigenous schools. Around the world of course, many Indigenous children attend non-Indigenous schools and succeed within the regular mathematics curriculum. Those who do not succeed, do so for a variety of reasons other than cognitive incompatibility. When Byers suggests that the incompatibility can be resolved by acts of understanding then this provides a guideline for curriculum development: How are ambiguous situations encouraged in classrooms such that children are saturated by experience and reflection and where challenges can only be resolved by creative acts of understanding? Working quietly and alone through set exercises from the text to achieve correct answers does not appear to be promising in this regard.

Drawing on the work of Levi-Strauss (1982), Seymour Papert (1992) grappled with similar ideas when he advocated mathetics and bricolage as important concepts for children and their learning of mathematics. Papert defined mathetics as a mathematical epistemology where children adopt very flexible and integrated approaches to their experiments and dilemmas and where they use what is at hand to consider problems rather than predetermined procedures. Of course, mathematical formalisms are used when appropriate. This means that they are not locked in to how adults have decided a problem should be approached, but they proceed in a trial and error, backwards and forwards manner. This must involve the utilisation of ideas and experiences from across group members regardless of cultural background as ways forward are sought. Thus, the concept of bricolage or the incorporation of an intellectual toolbox that is available at the time, envisages the child as a bricoleur, inventive, curious and practical. Hooley (2008, p. 32) has taken this theme further, when he suggests 'Working within discursive, mathetic, small-group and small school environments, the student-as-bricoleur model offers a powerful framework for the reconstruction of Australian schools.' He could have easily added 'and for the construction of an Australian Indigenomathematics'.

In his wonderful book, where he describes the nature of mathematical knowledge from a variety of literary, physical and mathematical perspectives, Hofstadter (1985, p. 249) suggests that 'the crux of creativity resides in the ability to manufacture variations on a theme'. He discusses two approaches to creativity, one that results from the collision of two previously unconnected ideas and a second that arises from the complexity of the internal structure of an idea. In discussing this latter view as a 'variation on a theme', he draws on quantum mechanics and the image of 'a swam of gnats around a gas station light on a hot summer's night, perhaps more like an

electron cloud with its quantum mechanical elusiveness about a nucleus'. Hofstadter (1985, p. 250) goes on to explain:

> If you have studied quantum chemistry, you know that the fluid nature of chemical bonds can best be understood as a direct consequence of the curious quantum mechanical overlap of electronic wave functions in space, wave functions belonging to electrons orbiting neighbouring nuclei. In a metaphorically similar way, it seems to me the crazy and unexpected associations that allow creative insights to pop seemingly out of nowhere may well be consequences of a similar chemistry of concepts with its own special types of bonds that emerge out of an underlying 'neuron mechanics.'

What Hofstadter is getting at here is a model of mathematical thinking that does not mirror that of a filing cabinet. Humans do not come to comprehend mathematics through the compilation of predetermined procedure arranged alphabetically – content in, content out – but rather though the constant interaction of thoughts 'like gnats around the light' or 'clouds of starlings feeding on the wheat' so that new arrangements become possible. While this network of interactions also produces occasional 'slippage' or new ideas that are considered to not be relevant at the time, it is necessary to produce the creative insight that takes understanding to a new level for the learner. From a quantum mechanical point of view, the positions of the particles cannot be predicted with certainty and therefore the overlap of their wave functions is uncertain as well. This indicates why the creative process itself is uncertain and cannot be taught precisely. What can be done, however, is to establish learning situations that are as inquiring and uncertain as possible so that participants can confront a diverse range of practices and from which new ideas emerge. As mentioned above, the quantum model is a baseline view of learning and can be easily discounted. But the filing cabinet model can be easily discounted as well.

These are serious implications for the mainstream school curriculum when Indigenous children are present and for school mathematics in particular. The various concepts that have been raised above, concepts such as creativity, ambiguity, uncertainty, are concepts that attempt to describe a type of learning environment that is appropriate for learning mathematics and that connects closely with features of Indigenous learning. If we take the concept of 'learning from the land' that has emerged as a major theme for this book, then we can easily apprehend an environment that is ambiguous and uncertain and demands creative responses for survival on a daily basis. Reading the landscape, knowing its stories and histories, linking animal behaviour to possible weather changes, knowing where to find food and water, constructing events through observation of signs and tracks all form the basis for what Byers called 'mathematical acts of understanding'. In a broader sense, the school is establishing an environment of inquiry that includes all aspects of the local surroundings for students to investigate and to consider from their own culture and perspective. A linkage is then provided from personal viewpoints to wider concerns so that new ideas can be constructed.

Some years ago, a secondary school in Melbourne, Australia invested funds in the building of a multi-purpose workshop. The school council purchased a large building close to the school and was able to undertake substantial renovations. An open plan area was developed down the entire length of the building involving metal,

wood and plastic areas. On the other side was a staff office, kitchen and classroom or meeting room. There evolved over time some memorable days when a senior citizens group was present for a hobby class, working alongside co-educational junior and senior classes. There was a hive of activity, much discussion and laughter as each learnt form the other and a range of products and models took shape. Some of the school's mathematics teachers attempted to schedule a number of classes in the workshop so that at least some of the mathematical ideas that were being presented could be touched and built using different materials. Soma cubes as an avenue into volume, scales for weighing, frames for small paintings from the art room to consider area, simple gliders regarding flight, were some of the items that resulted from this process. Inquiry learning is time consuming and the large number of topics that fill mathematics text books must be reduced, but without 'objects to think with', school mathematics becomes very abstract indeed. If the general principle of 'learning from the land' is adopted, then all mathematics classes need access to workshop processes of some type that enable connections with tangible (mathematics) objects and thinking that can be investigated within the school and on excursions and camps. This is an essential step to move learning from instruction to construction and from the personal to the general.

The argument being put here does not result in a 'Balkanisation' of the curriculum, where Indigenous and non-Indigenous cultures are separated. Rather, the notion of two-way inquiry learning (see Chapter 10) seeks to respect and recognise different cultures so that connections can be found and new ideas confronted by the class as a whole. There are two key aspects around which mathematics and other classrooms need to be coordinated to allow this to happen. First, the major organising idea is that of collaborative inquiry learning where groups of learners negotiate projects of their own interest (such as in the multi-purpose workshop above) and second, the role of the teacher involves working with students guiding, connecting and expanding ideas as the occasion warrants. When the concept of circle arises for instance, the teacher judges when and how it is appropriate to extend the idea of area to that of circle, when the concept of ratio occurs, the teacher decides when and how it is appropriate to introduce census data for analysis, when the concept of gram is raised, the teacher judges when and how to ask about the weight of a drawing pin.

Prompts and conversation pieces like these are chosen by the teacher to link personal knowledge with new and challenging ideas, to link ideas that are important from a cultural and community perspective to ideas valued by other cultures and perspectives. In talking about health and disease, for example, Trudgen (2000, p. 133) had to find personal experience of the local Indigenous people to explain why they needed to take the prescribed tablets every day. In talking with a community member about scabies, he used the example of a turtle laying its eggs in the sand to explain the idea of 'parasite' laying eggs under the skin. If this relationship was not made clear, the particular health issues remained confusing and provided further evidence of the mysterious and secret knowledge of white fellas. Similar practical links need to be found to make whitefly mathematics understandable as well.

Assessment-as-Indigenous Learning

In a discussion on how mathematical knowledge is formed, Ernest places importance on the relationship between personal and public knowledge and the conversations that must occur. He comments (Ernest, 1998, p. 263) that dialogue and interactions

> are what allows an individual's personal knowledge of mathematics to be regarded as an interiorisation of objective knowledge. Sustained two-way participation in such conversations is also necessary to test, correct and validate subjective representations of mathematical knowledge.

Ernest provides a cyclic model of this process in which personal and public mathematical knowledge 'recreate each other'. He describes a cycle whereby personal activity leads to subjective representations of mathematical concepts and which is then followed by public comment, reformulation and warranting as the basis of agreements around new mathematical knowledge. The central aspect of this cycle of learning is conversation and interpersonal negotiation. Again, there is a strong connection between this view and Indigenous ways of knowing. Arising from an inherently communicative and collaborative learning environment are cycles of dialogue that continuously interact with and reform understandings of the personal and more general worlds. If adopting this type of approach for Indigenous purpose, schools have a choice of monitoring each aspect of the cycle as it proceeds as well as assessing specific content at key points in time. It needs to be emphasised that an inquiry framework of learning may involve numerous cycles of experience before encounters with specific content become realisable and that imposing assessment techniques prematurely will most likely give inaccurate results. A judicious mix of 'assessment-for-learning', 'assessment-as-learning' and 'assessment-of-learning' seems most appropriate (VCAA, 2008).

For Indigenous children involved in an experiential approach to mathematical and other learning that features intense conversations and reformulations over time, the reliance on one data set of assessment materials is to be avoided. If it is agreed that regular testing regimes will not overly disadvantage Indigenous children, then such results should be considered in relation to a much richer data pool. For example, Baturo et al. (2008) discuss their attempts at not disadvantaging Indigenous children in Australia through a rigorous analysis of national mathematics test results. As shown below in Fig. 13.1, it is advised that learning should be triangulated with three data sets from different resources. This could involve a criteria-based approach to student portfolios and descriptive checklists that are complied from roundtable discussions with students.

The above model of Indigenous assessment based on a triangulation of data can apply to literacy, numeracy and indeed all other areas of the curriculum as well. It needs to be located within an overall process of democratic accountability and support involving state and regional authorities. In learning from experience overseas (CARE, 2000), major facets of this process could involve the following:

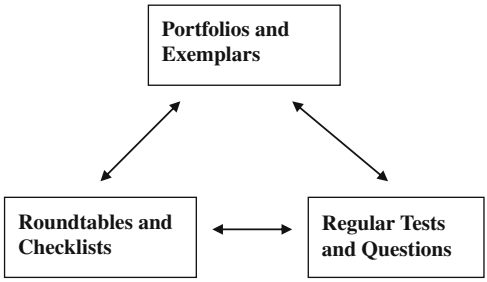

Fig. 13.1 Data required for assessment

- Connections between Indigenous knowledge and regular curriculum. Over a 3–4 year time span, it will be possible to establish links between Indigenous knowledge that is endorsed by local communities and the regular curriculum, such as VELS in Victoria. Being able to describe linkages, progress and gaps under the principles outlined previously is necessary for purposes of curriculum and programme evaluation.
- Local, authentic assessment data. Adopting a curriculum that is culturally inclusive and discursive enables rich data to be assembled that accurately describes student learning. State testing data can be incorporated if appropriate but Indigenous learning should not rely on one data set alone.
- Community Learning Circles. Central and regional support for school programmes must be provided with community learning circles being one structure that will encourage broad community participation. This could build on mechanisms of support already provided by state and community groups. The resource, monitoring and validation role includes advice on portfolio development, exhibitions, learning rubrics, teaching protocols and approaches to public reporting.
- Ongoing curriculum evaluation and research. Local programmes that respect local knowledge need to be seeking constant improvement and be willing to learn from external experience. Support for appropriate evaluation and research needs to be available.
- School–university partnerships. Universities are able to provide evaluation and research methodologies, access to literature, professional learning for staff and community, support for school students and pathways for ongoing study. They have a major responsibility in working with schools in pre-service teacher education programmes. Partnership memoranda connect local agendas to the broader profession.

Improving the literacy, numeracy and schooling generally for Indigenous students has significant implications for the curriculum of all Australian schools. For educators who support integrated knowledge, inquiry learning and criterion-based assessment, the ways of knowing pursued by Indigenous people are most appropriate for all classrooms. Major change will be required particularly at the secondary level and particularly in some subjects such as mathematics. However,

the theoretical and philosophical basis can be identified on which this work can proceed. Assessment procedures that are culturally inclusive must also be developed involving a range of data that can accurately describe a child's learning over time. The ambiguities and uncertainties that will be encountered with culture, knowledge, curriculum and assessment surely enhance the learning environment for all school communities.

Ethnomathematics and Indigenous Numeracy

To establish a framework of Indigenous epistemology for application across the regular curriculum is no easy assignment. In the first instance, there needs to be an agreed set of principles regarding Indigenous knowledge, teaching and learning that can form the basis of such a framework. Secondly, curriculum arrangements need to be flexible to allow principles to be adapted in each subject and classroom. Thirdly, forms of monitoring and assessment must not impose the one view of knowledge, but recognise that there are different world views that must be respected. A culturally inclusive curriculum also needs to arise from ongoing discussion between local communities and teachers so that different perspectives and knowledges can coexist without one dominating the other. In pointing out that history is a contested area of knowledge, Smith (1999, p. 33) comments that disputed versions of the past are 'very much a part of the fabric of communities that value oral ways of knowing' and that:

> These contested accounts are stored within genealogies, within the landscape, within weavings and carvings, even within the personal names that many people carried. The means by which these histories were stored was through their systems of knowledge. Many of these systems have since been reclassified as oral traditions rather than histories.

Mathematical knowledge and practice is perhaps the most difficult area of the regular school curriculum for inclusion in an Indigenous framework of teaching and learning. As mentioned above, while the philosophical nature of mathematical knowledge is very seldom debated by classroom teachers, there seems to be an assumption that Plato lives on, that mathematics is a timeless truth that holds all over the world. Some classes that may encourage an inquiry approach to knowledge and learning generally speaking often revert to a logical positivist view where mathematics is concerned. This holds that mathematical knowledge is not available for construction but is predetermined and discovered. It is not clear why this view has such a strong grasp amongst teachers, although the separation of knowledge into discrete subjects at the secondary level together with the ideological persuasion of testing and examination systems exerts a strong influence. An Indigenous framework will have an impact on how mathematics is taught and assessed in schools, but unless the teaching of mathematics in schools becomes more open and flexible, the development of an Indigenous framework will be extremely difficult.

In many areas of the school curriculum, a few intellectual building blocks are used to create and express the cascading of human curiosity and imagination,

whereas in school mathematics, the never-ending algorithmic building blocks are imposed and are seldom used to build anything creative and cognitive. At least to build something that is original, dynamic and generative.

A constructivist view would suggest that knowledge is composed and improvised by each learner and cannot be conveyed from person to person without individual or social reconstruction of the ideas involved. On the other hand, a behaviourist view sees knowledge as a passive response to environmental influences as knowledge is transmitted. Why behaviourism and not constructivism has dominated school mathematics can only be surmised. There is no reason why mathematics cannot be considered as a constructivist field of knowledge or of becoming in schools, or indeed as a radical constructivist field. For radical constructivists, reality can never be known or known exactly, but it is possible to engage in continuing processes of inquiry to untangle and challenge what we think, our assumptions and prejudice. Radical constructivists are therefore very interested in notions of truth, axiom and proof, not as absolutes but as areas for investigation.

The various philosophical views of mathematics also make it unclear as to why school mathematics is dominated by one. One could surmise that school mathematics is decided mainly on political terms that connect nicely with conservative ideologies, even in those societies with a reasonably strong teaching profession. In rewriting the above ideas in every day words, mathematics can be seen as holding the universe together independently of human will, it can exist as logic and formalisms that have no connection with mathematical objects, it can express the properties of entities, patterns and quantities as best humans can understand them and it can arise from human experience in the same way as other knowledge. In some societies, mathematical insight can be exploitation, the privilege of a few resulting from a particular cultural and economic world view. If mathematics can be considered as uncertain and ambiguous – a reasonable guide to human interaction with the universe but uncertain and ambiguous nevertheless – then all subject content in the school curriculum can be considered uncertain as well. As soon as this position is adopted, there are serious implications for how knowledge is structured, organised and assessed in all subjects, in all schools.

Ethnomathematics, A Cultural View of Mathematics

Ethnomathematics is a relatively recent category in the literature (D'Ambrosio, 1985) that has quickly developed a status in its own right. It provides a way of thinking about mathematics that may challenge traditional approaches in schools and universities so that the field becomes more inclusive of diverse views and understandings. Ethnomathematics refers to the way people from a particular culture have common systems for thinking and acting mathematically. As a field of study it has virtually no currency in Australian schools, but its theorising has the potential to challenge the cultural hegemony of regular school mathematics. Different approaches to working with the concept are possible including situating school

mathematics within a cultural context and the integration of cultural ideas into a mathematics curriculum that begin with the learner's ideas but lead to a realisation of formal and predetermined mathematical procedures (Hooley, 2005). These approaches tend to accept that cultural heritage can act as stepping stones to the valued knowledge of modern mathematics, as distinct from accepting that cultural understandings are valid and independent forms of thinking and reasoning and may lead to a different understanding of mathematics entirely.

Ethnomathematics can be integrated into the dominant culture, or challenge its legitimacy, it can be treated superficially, or serious efforts can be made to link the deep structure ideas of culture and how we understand the world. In a fascinating study that looked at how an Indigenous group of people in the Philippines used mathematical ideas when building stone walls, Alangui (2003, p. 61) reported that 'The idea of friction seems to be captured in the way they describe the positioning of stones, that is, when they talk about the stones as "biting into each other" or "tightening like screws." ' This example certainly shows non-European people utilising ideas that are also clearly European-mathematical and no doubt, ideas that have been in the common vernacular for hundreds of years. Regardless of respect for Indigenous or traditional people and knowledge systems, there is an equally large question at stake here involving the mathematical thinking that resides in the heads of all people both within and between cultures and how these can or should be reconciled for mutual understanding.

In a physiological or neurological sense, thinking mathematically could involve the brain acting differently at a neuronal or synaptic level to when we are thinking imaginatively. The notion that the brain is divided into left and right hemispheres that function differently relates here. This could lead to the view that some people are a born musician, writer, or mathematician and others are not. In similar vein, formal mathematics can be viewed as a means of controlling the social and natural environments especially the economic and to solve problems that are rational and objective. Ethnomathematics enables cultural viewpoints to be incorporated into this process, provided that one culture does not seek to dominate the other and that cultural perspectives can be encountered in a broad field of study in a two-way fashion. Stillman and Bilatti (2003, p. 317) cite D'Ambrosio as stating that the connection between academic mathematics and ethnomathematics has 'at its heart the notion that mathematics is socially and culturally constructed' and that ethnomathematics as a research programme involves 'the study of the generation, organization, transmission, dissemination and the use of [the] jargons, codes, styles of reasoning, practices, results and methods used to make mathematical meaning.' There are still problems with this definition in that it too closely takes European mathematics as its starting point, but it seeks to respect different histories and perspectives and by so doing, opens up new avenues to meaning and practice.

Like all other fields, science and mathematics have their dominant discourses and shared understandings, but like all other fields they are subject as well to the undercurrents, fractures and revolutionary ideas that threaten to leap into unknown territories. This is increasingly difficult for curriculum developers of course and as Michie (2004, p. 1) makes clear for developing countries in particular, curriculum

'is being undertaken as a global project rather than inclusive of the needs, policies and cultures of the host nation'. Questions of wealth and privilege, rather than cooperation and democracy will take pride of place. A curriculum that enables both backwards and forwards movement, that immerses students in the history and culture of the field, but at the same time problematises its validity and most cherished statements through respecting all cultural viewpoints, appears a long way out of reach.

Curriculum Change

Many students in Australia will have come across an elegant way of calculating the area of a circle. They may not have been encouraged, however, to think about whether a perfect circle exists in nature, or whether it is a necessary human creation. It is likely that they are familiar with the equation $A = \Pi r^2$. In some classes, they may have derived the formula by dividing the circle on paper into as many small triangles as possible and cutting them out and forming a rectangle. By using prior knowledge, they can calculate the area of the rectangle by multiplying the width (which is the radius of the circle) by the length (which is half the diameter). This is a very neat derivation, but it does rely on two assumptions, first that the rearranged triangles cut from the circle are, in fact, equivalent to a rectangle and second that the value of pi is accurate. Both of these assumptions may be incorrect, meaning that the results obtained from the equation are approximate rather than precise. This raises some of the great questions of philosophy including the nature of observation, inference, induction and deduction and whether mathematics as formulated from human practice, always gives the accurate answer, sometimes called truth? If these questions arise, then there is a common philosophical process that should permeate school mathematics, that is the challenging of assumptions made, the procedures undertaken and the results obtained.

The procedural approach to school mathematics in most countries and classrooms has resulted in a curriculum that struggles to find breathing space for learners to explore and express their own ideas. The practical work, dialogue and inquiry that an investigation of the area of a circle endorses, means that group experiments and thinking rather than individual work is preferred and that the environment becomes communicative rather than isolationist. As we have seen, discursive characteristics are essential for an Indigenous way of learning. If mathematics classrooms consist mainly of working through a set text and a large number of topics without any scope for investigation of underlying concepts and where the task is mainly to acquire the correct answer, then Indigenous participation with that particular knowledge is denied. Although it may not be possible to establish a workshop approach with all topics all the time, it should be possible to establish an inquiry structure that features Indigenous principles for some of the time. Such a structure allows learners to move between cultural experiences and make connections between ideas in a practical sense, as distinct from being asked to manipulate abstract symbols from the dominant culture with pencil and paper.

Frigo and Simpson (2000) in their study regarding Indigenous numeracy and implications for the school curriculum in the state of New South Wales, Australia, report that:

> when culturally inclusive curricula and pedagogy are adopted by schools and teachers and delivered in a way which accounts for the diversity of student backgrounds and starting points and formative assessment (which is culturally and contextually appropriate) is used to rigorously monitor student progress, the achievement of Aboriginal students improves significantly.

A consequence of this direction is that Indigenous perspectives of mathematical thinking and practice need to be integrated wherever possible. Similarities and differences between Indigenous and non-Indigenous concepts need to be discussed with local community members including the contemporary use of cultural mathematical ideas. Frigo and Simpson suggest that these discussions can include issues such as space (navigation of the bush, weavings, maps, scale models, artwork, design of tools), algebra (patterns in the environment, music, kinship relations), number and counting from various cultures, measurement (time, distance, seasons) and chance and data (characteristics of Indigenous populations especially those agreed by local communities). Similar items were seen in the exemplar regarding numeracy (Chapter 12). This type of approach was identified by Frigo and Simpson as taking place within a general educational context where a comprehensive range of issues was considered including a learner-centred and inclusive curriculum, school and community partnerships, linguistic matters, access and equity and appropriate teaching and assessment strategies.

Goos, Stillman and Vale (2007, p. 353) refer to McCarthy (2002) and her work in developing a secondary level numeracy project. The unit has comparable characteristics to those noted above in that it 'required the active involvement of Indigenous women from the local Tennant Creek (northern Australia) community, respect for Indigenous knowledge of medicine and was based on the needs and interests of the students'. Students were required to identify the location of local bush medicines and map how to get there, produce an information package using computer programmes to communicate their findings to a wide audience and ensure that their information contained maps, photographs, diagrams and video selections. This project connects Indigenous and non-Indigenous knowledge and opens up particular issues for broader investigation. It integrates mathematical practices into other fields of investigation and links those ideas that are recommended at school to build upon those ideas that have a community interest.

As mentioned previously, bringing about these apparently modest changes in a mathematics classroom confronts the deeply held philosophical views that exist regarding the nature of mathematics. It is worth quoting Joseph (1997, p. 72) at length on this matter, as he outlines some of the reasons why a 'Eurocentric bias' still remains regarding the production and privileging of scientific knowledge:

> The Eurocentric historiography of mathematics exhibits certain features that may explain the biases that result. First, there is a general disinclination to locate mathematics in a materialist base and thus link its development with economic, political and cultural changes. Second, there is a tendency to perceive mathematical pursuits as confined to an elite, a few

> who possess the requisite qualities or gifts denied to the vast majority of humanity. This is a view prevalent even today in the classroom and thus determines what is taught and who benefits from learning mathematics. Third, there is a widespread acceptance of the view that mathematical discovery can only follow from a rigorous application of a form of deductive axiomatic logic, which is perceived as a unique product of Greek mathematics. As a consequence, intuitive or empirical methods are dismissed as of little relevance in mathematics. Finally, the presentation of mathematical results must conform to the formal and didactic style following the pattern set by the Greeks over 2000 years ago. And as a corollary, the validation of new additions to mathematical knowledge can only be undertaken by a small, self-selecting coterie whose control over the acquisition and dissemination of such knowledge through journals has a highly Eurocentric character today.

The position put by Joseph reflects a non-European point of view and attempts to validate the knowledge originating from third world and African peoples. He suggests that mathematical understanding can arise from practical experience that includes all people rather than a small group only. This latter approach he claims involves primarily a deductive rather than inductive approach that excludes practitioners including children from building up their knowledge from daily life. A philosophy such as this can be seen when the mathematics curriculum particularly at the senior level consists of different subjects predetermined for different groups of students. Such subjects may be labelled as 'general' for those who are thought to not be capable and 'advanced' for those who are thought to have a more proficient understanding. A curriculum that knowingly builds such philosophical assumptions into its basic architecture must disadvantage those students who see the world in different ways.

Indigenomathematics, Learning from the Land

Based on the above discussion, it may be appropriate to give more definition to the notion of ethnomathematics when working with Australian Indigenous communities and consider the notion of Indigenomathematics as described. What follows is an outline of some key ideas that could form the basis of a mathematics curriculum for Indigenous children. As a starting point we can refer to the words of Rosalie Kunoth-Monks, an Indigenous woman from central Australia. Rosalie makes a heart-felt plea that changes occurring in her community must not come at the expense of Aboriginal identity:

> The concept of identity is complex and includes the symbolic importance of land and culture, but it also allows for an individual response to change. Identity as an Aboriginal person, acceptance of yourself, is the most importance piece of knowledge that Aboriginal people can have for the future. Identity is not a right, rather it is something you develop yourself' (Kunoth-Monks, 2007, pp. 8–9).

Land, culture and identity are placed at the centre of Indigenous life and consequently must be at the centre of learning and mathematics curriculum. Given the diversity of urban, regional and remote communities it may not always be easy to include connections in every topic, but it will be possible to establish a framework

of learning that does. Such connections will not always emerge from the pages of a book, but will need to be experienced in the outdoors and in conversation with the land and with Indigenous people. It may not necessarily infer an experiential philosophy of mathematical knowledge, but it does request that personal associations between mathematical concepts and the physical environment are made as much as possible throughout schooling. Direct experience of the surrounding landscape is required whether desert, coastal or bush, township or city, so that a broad base of mathematical thinking, know-how and practice can be established. In some locations, the connections with land as cultural schemata may not be strong, but schools need to work with local communities over long periods of time to ascertain what features can be shared and incorporated into the curriculum.

In discussing the Woodlands Cree world view, Mitchell (2005, p. 38) describes a conceptual framework for teaching that could be applied in the mathematics classroom in any Australian school:

> Developing learning themes based on traditional seasonal cycles and patterns in the natural world, sustained contact with natural environments, using traditional knowledge and stories to connect with real-life issues, exploring the use and benefits of traditionally developed technologies, utilising Cree resource people and Elders in curriculum, experiential learning and hands-on activities, ... using books and materials with Woodlands Cree images and symbols, ... sharing circles, drawing, painting, singing, drumming, making models, traditional games, rituals, ceremonies, creative visualisation and using story telling as a means to cultivate critical thinking skills.

A number of problems immediately come to mind if advice such as this is to seriously inform the mathematics curriculum. Many teachers would feel that they do not have the necessary background information to implement this approach, there is probably a lack of Indigenous materials that relate to specific locations, there will be doubt about the time required and space in the curriculum to teach in this way and contact with local Indigenous communities may be superficial if present at all. What is strikingly apparent about the above list of course is that it constitutes an experiential approach to knowledge, a philosophical view that knowledge arises from a personal inquiry of the natural environment and a collective reflection on meaning. If this view is accepted for mathematics, then the curriculum must be changed to accommodate such features. If a logical positivist view prevails, then the curriculum will remain inflexible and the above recommendations cannot be included.

One feature of indigenous knowledge that seems essential for mathematics learning is story telling or narrative. While sometimes disregarded by non-Indigenous scholars and educators, Indigenous stories link the people, land and knowledge, as well as acting as maps for defining country. Sveiby and Skuthorpe (2006, p. 41) point out that Indigenous story telling is a ‘dramatic art’. ‘In a live situation there is no medium that distances the teller and the listener. The story teller supplemented the story with visual effects and could use their whole body in the telling.’ This injects a subjective element into the event, raising one of the criticisms of accepting Indigenous story as being accurate. In reply, Indigenous people argue that Indigenous knowledge does not require non-Indigenous validation, it stands on its own.

As described previously, Sveiby and Skuthorpe go on to analyse various levels of meaning of Indigenous narrative as guiding a way of living with others, a process that will include mathematical understandings. Again, teachers may not have immediate access to local Elders, stories and narratives that they can link with mathematical practices but, as with all teaching, the task involves finding activities that can relate the child's direct experience to the experience of the Indigenous world. This is a continuing, long-term process.

Theorising connections with the land as the main feature of Indigenomathematics in Australia and elsewhere changes the nature of school mathematics. Connell's (2007, p. 207) view encountered previously about 'grounded theory' suggests that in the social sciences, generalisations can be found within specific situations so that they aim to clarify and to 'illuminate a situation in its concreteness'. This type of approach can be explored by teachers and schools in opening up mathematics for Indigenous children in the regular curriculum. It takes generalisations such as land, culture, identity and story and locates them in particular histories and circumstances. It attempts to link Indigenous and non-Indigenous notions of mathematics to not only understand both from a practical and authentic perspective, but to generate new understandings and practices to further community interest. School mathematics then becomes a genuine field of philosophical inquiry, respectful of Indigenous and non-Indigenous culture and knowledge alike.

In his marvellous and insightful book, David Peat describes his evolving understanding of Native American culture and science, particularly from the point of view of the Blackfoot nation. As a physicist, Peat discusses the two worlds of understanding that constitute Indigenous and non-Indigenous knowing and also identifies issues of similarity and connection. In reference to a point made earlier, he relates these different worlds to the tensions between classical and quantum mechanics in physics. Peat (1994, p. 46) notes the comments of Niels Bohr that despite this theorising Werner Heisenberg was still considering the quantum world from a classical perspective and writes:

> But this idea that electrons and other quantum objects 'possess' intrinsic properties, Bohr argued, is really a hang-over from old ways of thinking. What Heisenberg's uncertainty principle is really telling us, Bohr explained, is that quantum reality is basically ambiguous. At the level of the atom concepts like 'position' and 'speed' are inherently ambiguous. Bohr went on to show that the quantum world appeared strange because 'classical thinking' is so ingrained in us, indeed it is part of the very language we speak.

It is not going too far to suggest that the ingrained thinking that dominated classical physics at the time of the development of quantum mechanics occupies a similar position to that which dominates school mathematics today. It is ingrained thinking that outlines a historical reference point regarding the clash of cultures in modern science. According to Kuhn and his philosophy of science, the concepts of ethnomathematics and Indigenomathematics may still be incommensurate with the current paradigm of school mathematics, but they provide a means of raising Indigenous ways of knowing mathematically that can be incorporated into the

regular curriculum of all schools. A new form of school mathematics may need to evolve in support of Indigeneity, one that is genuinely personal, constructivist, uncertain and culturally inclusive, one that establishes in every classroom a philosophical and democratic mathematical inquiry into the nature of the universe itself.

Chapter 14
Policy, Practice and Pedagogy

> *Reforms based on the greater inclusion of Indigenous perspective and methodology into the education system through the changing of the canon will work towards the changing of the dominant nationalism as children are exposed to balanced versions and perspectives of their history (Larissa Behrendt, 2003, p. 138).*

In February 2008, the Australian Prime Minister Kevin Rudd rose to his feet in the national parliament and issued an apology to the Stolen Generations of Indigenous children and their families. These were children who had been removed from their parents and communities and had been sent to missions and/or placed in white foster care. The nation cried as Prime Minister Rudd spoke of the laws and policies of previous governments since settlement that had caused acute grief and loss for Indigenous Australians. He asked that the apology be received 'in the spirit in which it is offered as part of the healing of the nation' and that 'For the pain, suffering and hurt of these Stolen Generations, their descendants and for their families left behind, we say sorry.' This was a magnificent event in white and black Australian history and gives substance to Friere's view that 'to be human means to make and remake one's self through making history and culture, to struggle against the limiting conditions that prevent such creative action and to dream into existence a world where every person has this opportunity and responsibility' (Glass, 2001, p. 16). History grinds on and peace loving people everywhere will respond to and create history and culture as best they can when the time is right.

The apology infused the process of reconciliation across Australia with new energy. It generated a national mood of compassion and respect for Indigenous peoples and issues that had not been seen before. Educators at all levels were now obligated to engage old problems that had strangled progress in the past with a broadness of mind that makes sweeping improvement suddenly possible. It could be said, however, that the apology was more symbolic than real and that change will not automatically follow from a set of words. Conversely, the apology could be interpreted as a concrete act of reconciliation that emerged after many years of political struggle and which will contribute significantly to ongoing social adjustment. Australia has an admired education system worldwide, has a highly qualified teaching service, achieves well on international testing programmes and within the

N. Hooley, *Narrative Life*, Explorations of Educational Purpose 7,
DOI 10.1007/978-1-4020-9735-5_14,

parliamentary arrangements of Westminster government is generally recognised as supporting the 'under dog' or the disadvantaged in terms of everyone having a 'fair go'. Like many other countries with weaker economies, however, it struggles to move forward with Indigenous education.

There appear to be three constellations of reasons that make progress with national and local reconciliation extremely difficult. First, Australia must confront the possibility that it supports various policies, procedures and viewpoints that are inherently racist. In our previous discussion on whiteness, it was noted that attitudes towards Chinese immigration to the gold fields, the White Australia policy following World War II and towards Indigenous Australians including the removal of children from their families, all demonstrate racist ideology and practice. While such matters have been or are being resolved, new issues arise including the global war on terror and attitudes towards Islam. Racism is insidious and based on an ideology of superiority, vast economic and social differences within and between societies, the exploitation of people and of the natural environment by dominant groups, fear of the unknown and how to cope with uncertain times, can remain buried deep within the national polity. Second, there are many practical problems that must be overcome for reconciliation to be widely successful. These range from application of native title laws and the management of land, massive improvement in health, housing, education and employment and different approaches to the social welfare system. Society however faces many long-term problems that require tenacity and commitment to overcome including a cure for many diseases and environmental quandaries, yet these do not prevent progress being made, step-by-step. Third, if racism is rooted in the conservative and reactionary power structures of white society, then reconciliation will not be achieved by using in turn conservative and reactionary protocols and routines. Breakthroughs will only occur with progressive and radical approaches that are bold in their identification of major obstacles and which provide democratic and inclusive means of creating new futures for everyone.

Given the respect in which they are held regarding their important work with children, education systems and schools need to be at the forefront of combating disadvantage and creating change. They need to adopt progressive policies and practices that are knowingly anti-racist, are fearless in confronting the range of daunting social and educational problems that exist in classrooms every day and establish totally inclusive frameworks of learning. In broad terms, the policy, practice and pedagogy of systems and schools need to be in accord with a pluralist way of viewing culture, knowledge and schooling and must not seek to impose a dominant world view that privileges one social class and race over all others. As mentioned previously, the role of schooling is to do exactly that, to ensure that privilege and position are entirely reproduced and honoured. However, it can be strongly argued that this is not the contemporary role of schools in a modern democratic society. The role of schools in fostering a critical anti-racist citizenship inclusive of all families regardless of socio-cultural standing is the basis of economic productivity as well as compassion and friendship within and between peoples. Reconciliation also demands that the principles and perspectives of Indigenous knowing are included across all subjects so that all children have access to different ways of viewing the

world. Educational activists around the world need to be able to advance proposals that will enable the restructuring of specific policy, practice and pedagogy so that local communities can join hands to act on them.

Case 1: Acting on Educational Policy

As one particular example of taking action in the policy arena, let us consider the state of Victoria in Australia. The new strategy for Koori (Indigenous) education was released in the same week as the national apology by the prime minister was made. When launching the strategy called *Wannik* (a local Indigenous word meaning 'Learning Together – Journey to Our Future;' see Victoria, 2008), the Minister for Education expressed the determination of the Victorian Government to 'close the gap' between Indigenous and non-Indigenous Australians. The Minister spoke of the need for an increased emphasis on accountability at the school, regional and system levels for improvement, stronger leadership and better engagement with Koori parents and communities. More specifically, the *Wannik* strategy involves the development of a culturally inclusive curriculum and the assurance that every Koori student in Victoria will have an Individual Education Plan. Support for accelerated literacy and numeracy was also listed together with encouragement for higher achieving Koori students, the employment of more Koori support staff and partnership agreements between local communities and schools that have Koori students.

How the education profession will deal with the *Wannik* policy is unclear but there is an opportunity to take state guidelines and to work with them an innovatively as possible in contest with a conservative world view. One such attempt to work within national guidelines has been made in New Zealand (Macfarlane et al., 2008) and efforts have also been made in relation to culturally inclusive teacher education in Australia (Phillips and Whatman, 2007). There is not a great deal in *Wannik* that is new for Australian teachers, but the document provides the opportunity for all schools across Victoria to reconsider their approaches to Indigenous education and how to move forward. There are two main issues at stake here: how to ensure the democratic right of all children to investigate their own history and at the same time guarantee the democratic right of all Indigenous children to experience approaches to knowledge, teaching and learning that are appropriate to their needs. One practical way of progressing these issues is the development of a set of guidelines to assist policy development and implementation in each school. Such guidelines that are appropriate for Australian schools could take the following form:

Strategies for improvement of Indigenous education at the school level need to take account of the following:

1. Culturally inclusive framework for all subjects.
    - Culture refers to the ideas, values, practices and traditions by which we live and is an important framework for all learning. Linking the cultural ideas

that students bring to school with the new ideas that schools present is at the heart of engaged teaching and learning.

2. Culturally inclusive approaches to literacy and numeracy.
   - Indigenous learning has its imperative in community interest which students use as the basis for meaning and expression. Family and community history and experience enables literacy and numeracy to be built from local knowledge and to include different cultural ideas.
3. Incorporation of Indigenous issues and Indigenous learning across curriculum.
   - All children should be able to experience different philosophical approaches to knowledge and learning in all subject areas. Specific content regarding Indigenous issues as well as Indigenous ways of knowing can be introduced into all subjects when appropriate.
4. Classroom environments that include integrated knowledge, inquiry processes and discursive relationships.
   - Indigenous peoples have a holistic view of the universe and emphasise connections rather than disruptions of knowledge. Language, communication and oral traditions are key elements of learning and active, engaged classrooms where ideas and proposals can be raised and discussed for adoption are necessary across all topics.
5. Monitoring and assessment procedures that are culturally inclusive describe learning progress and provide strategies for further learning.
   - For Indigenous children, emphasis needs to be placed on progress in learning that is being made over time, rather than comparison with predetermined levels at particular points in time. Explanations of progress need to be clear and include the next steps that can be taken to improve.
6. Participation of local Indigenous community in curriculum.
   - Elders and other community members need to be involved in daily classroom life as much as possible. This establishes the connections between the school and home and helps to identify important community issues that can be included in projects and topics.
7. School-community learning circles for policy guidance.
   - Regular discussion and consultation needs to occur between school and community regarding the direction of Indigenous education. A school-community learning circle made up of parents, students and teachers will keep the lines of communication and respect open between all groups.
8. Education plan for each Indigenous student.
   - Support for Indigenous students can be provided by an education plan that describes the learning that is taking place across the curriculum and outlines

some proposals for ongoing improvement. The plan needs to be culturally inclusive in that it respects local knowledge and interests, and recognises the different ways that students approach their learning.

9. Appointment of Indigenous Education coordinator.

   - Each school needs to ensure that every Indigenous student is making progress and that family and community are fully involved in school and curriculum. A systematic means of closely monitoring progress and of maximising participation needs to be ensured and undertaken by appropriate staff.

10. Appropriate pathways to Year 12, further education, training and higher education.

    - Discussion of educational pathways throughout a child's schooling needs to be carefully conducted so that all options are known and can be explored. Such a process contributes to high expectations of schooling for all students and assists the overcoming of social, economic and personal barriers.

11. Professional learning programmes for all staff regarding Indigenous education.

    - All teachers need to be familiar with Indigenous history and culture as well as appropriate forms of teaching and learning for Indigenous children. Designing and implementing culturally inclusive curriculum in all subjects is a complex task that requires constant collegial support and reflection.

12. School–university partnerships for curriculum development, student pathways, evaluation and research.

    - Universities are experienced in reviewing the professional literature and the total cycle of knowledge production. They provide a ready source of advice and educational practice across a broad range of areas that schools can draw upon over time. Pathways for students into higher education and evaluation and research of school programmes can be negotiated.

Key Features of Policy Development

The *Wannik* policy in Australia does not detail a particular model of schooling to be adopted, which is appropriate for a broad policy statement. This is rightly the responsibility of local communities. As has been mentioned before, however, it is doubtful whether there is a single model of schooling that can be defined as having successfully achieved the complex learning and cultural outcomes desired by Indigenous communities throughout Australia. What has been suggested in these pages is the requirement for a detailed description of the essential features of schooling that are necessary to constitute a model that will be supportive of Indigenous

aspiration. These features are then discussed and negotiated with local communities and when agreement is reached with the appropriate authorities they are resourced accordingly. Indigenous education will probably cost more than non-Indigenous education particularly with the provision of staff over and above normal staffing ratios, but once agreement is reached the resources will be provided. This is a difficult proposition if different models of schooling are being used to generate different outcomes for different communities.

It bears repeating that if evidence regarding a successful model of Indigenous schooling was much clearer, it would have been implemented long ago. It is difficult for any school with Indigenous students to assemble the range of factors necessary and to implement then consistently over an extended period of time. Not all schools in the wealthy countries, for example, have Indigenous students and for those that do, most have only a small number. This makes the argument for widespread curriculum reform very demanding. It seems apparent that either an inclusive or separated model can be successful if it has community support, cultural and learning outcomes are agreed and the range of success factors can be implemented and be sustained.

The state of Victoria in Australia has about 8 500 Indigenous students in schools with about 1 000 schools or 60% having one or two students, about 200 schools having up to 20 students and about 50 schools having over 20 Indigenous students. Of the 30 000 Indigenous people in Victoria about half live in the capital city of Melbourne, mainly in the northern and western suburbs. It is most unfortunate therefore that the regular curriculum of Australian schools has found it extremely difficult to meet the learning needs of Indigenous children. While most Indigenous children complete primary school, many are not engaged with the broad spectrum of school knowledge and drop out during the middle years of secondary schooling, not necessarily moving to formal vocational training. The segmented approach to knowledge adopted by most secondary schools makes cultural inclusiveness very arduous.

The key features identified and discussed throughout this book for the development of education policy for Indigenous communities can now be summarised as being:

- For Indigenous families who want their children to succeed in mainstream schooling in the urban, regional and remote areas of Australia, the curriculum must support identity and cultural formation, while at the same time encourage students to become immersed in non-Indigenous approaches to knowledge, teaching and learning. The curriculum therefore needs to be as democratic and as culturally inclusive as possible to strengthen cultural capital and as one transforming epistemological proposal be structured around:
  - participatory narrative inquiry;
  - two-way inquiry learning;
  - exemplars of Indigenous knowledge and practice;
  - community learning circles.

- For Indigenous families who want their children to experience a more culturally inclusive curriculum than what they consider a mainstream school can provide, then different and perhaps separate arrangements need to be negotiated with state providers. Difficult decisions will need to be made regarding the balance between local Indigenous cultural knowledge and which aspects of privileged school knowledge that should be engaged such as language, mathematics, science, history and at secondary school, how to ensure access to credentials for further study and employment. The curriculum therefore needs to be as democratic and as culturally inclusive as possible to strengthen cultural and critical capital and similar to the above, ensure that learning is informed by the broad educational and political context comprising:
  - democratic critical pedagogy;
  - professional learning clusters;
  - construction of counter narratives such as Ethnomathematics and Indigenomathematics;
  - national professional dialogue and contestations.
- Social justice and equity remain huge problems for education systems and school curricula that the proposals outlined in this book are designed to resolve. Accordingly, Indigenous education needs to be considered within a careful and detailed socio-economic analysis of the Indigenous general and student population. In Australia at least, the Programme for International Student Assessment (PISA 2006) confirms that the average socio-economic background of a school outweighs each student's socio-economic background and that the impact of schooling is greatest for students from disadvantaged backgrounds, or attending schools with a low average socio-economic background. The curriculum therefore needs to be as democratic and as culturally inclusive as possible to strengthen cultural and social capital, maintain strong connections with community and ensure intense Indigenous community participation and activism that includes
  - Council of Elders (local, regional, state);
  - programmes of community engagement and enhancement;
  - cooperative economic, cultural and educational self-determination
  - communication within education public spheres (see Chapter 15).

Testing Again

Student assessment is the most hotly disputed and difficult issue in education and therefore also offers prospects for alternative strategies and change. Assessment is constantly disputed because of the philosophical differences that exist concerning the nature of knowledge and how knowledge, teaching and learning can be best arranged, taught and assessed for diverse student populations. A conservative viewpoint sees knowledge as known and set, capable of being transmitted accurately to all students in the same way at the same time. A progressive viewpoint sees

knowledge as being uncertain and open to interpretation with students constructing their own understandings. In recognising that different children approach their learning differently, this latter view encourages different approaches to assessment as well. The Government in the United Kingdom announced in 2008 that a new assessment policy was being developed that emphasises 'stage not age' and 'testing when ready' rather than mass testing at set times.

Within this context of assessment disputation and uncertainty, it is educationally imprudent to subject Indigenous students to the same approaches to teaching and learning and the same contested assessment regimes that apply to non-Indigenous students. It could unfortunately and realistically be expected that test results for Indigenous students under these conditions will be unsatisfactory and not give a true indication of literacy progress. Indigenous literacy needs to emerge from within a cultural context that enables students to begin from community interest, investigate issues of community importance and describe in written and other forms, experience, ideas and meaning. If such a cultural context is not present, the schooling system is knowingly and wantonly disadvantaging students from the beginning. Once a cultural and experiential programme is established, links can be made to the regular school curriculum and non-Indigenous literacy will become embedded in and emerge from the Indigenous experience. It is the task of each teacher in each classroom in each subject in each topic to ensure that this direction is consolidated. To accommodate these issues and as the basis of assessment, a descriptive education plan for each Indigenous student can be adopted as outlined below. It assumes ongoing discussion between parents, student and teachers where progress is described and changes to the learning programme agreed. This work will need to be overseen by an Indigenous Education Coordinator at each school or group of schools who will build a respectful relationship with parents and students over time.

Education Plan

Name: Year:

Section 1: Overview

This plan is designed to assist Koori students with their learning. Accordingly, we acknowledge the Elders, families and forebears of the Indigenous peoples of Australia. We recognise that the land on which we live, meet and learn is the place of age-old ceremonies of celebration, initiation and renewal and that the Indigenous people's living culture has a unique role in the history and life of the state of Victoria, Australia.

The following principles frame Indigenous learning across all subject areas:

- Indigenous Australians have a unique relationship with the land where all people, animals, plants and landscape are connected.
- Learning is based upon community interest and relationship with the land.
- Elders and community members should participate in all aspects of school life and curriculum development.
- All students should be able to incorporate Indigenous history and culture into their learning.

- Teaching and learning should enable the integration of knowledge, the active investigation of ideas, cooperative groups and the lively exploration of language and communication.
- Forms of monitoring and assessment of learning should be culturally inclusive so that the diverse character of learning can be accurately described over time.

This plan is arranged in a holistic way so that Indigenous approaches towards knowledge are respected. Specific comment regarding progress can be discussed with particular subject teachers.

Section 2: Framework for Learning

Literacy
A conventional view of literacy is about functional literacy that restricts the concept to the ability to read and write for practical purposes, or to be able to code and decode language and move between written and spoken text. A critical or socio-cultural view of literacy involves the construction of personal meaning from varied practical environments and experiences. The conventional view usually emphasises specific elements of language that are then taught in a rule-based and step-wise manner. The critical view of literacy emphasises social and educational experience where structures of language are highlighted for teaching when appropriate. For Indigenous children, the starting point for literacy is community practice and culture which can then be linked to the privileged forms of Standard Australian English across the curriculum. A cultural context for learning and literacy needs to be established within which such experiences and linkages occur.

Numeracy
The term numeracy is relatively recent, being first used officially in the late 1950 s. In the same way that literacy is now considered to be more than reading and writing, numeracy is more than numbers and measurement. Numeracy is considered to be the use and application of mathematical ideas to make sense of the world. This involves understanding some mathematical techniques, how they can be used in particular contexts with particular problems and being able to evaluate the results. Similar to literacy, numeracy is a sophisticated concept demanding an integrated set of capabilities that interact with a specific situation. For Indigenous children, the starting point for numeracy is community practice and culture which can then be linked to the structure of mathematical thinking and practice across the curriculum. A cultural context for learning and numeracy needs to be established within which such experiences and linkages occur.

Monitoring, Assessment and Reporting
Given the centrality of the cultural context for learning that Indigenous learning requires, it is necessary that the monitoring and assessment of Indigenous children not impose a culturally biased view of knowledge. In this respect, the three approaches of ‘assessment for learning’, ‘assessment as learning’ and ‘assessment of learning’ should be considered. This means that agreement on the cultural context and the approaches adopted need to be discussed and agreed with the local

Indigenous community. Evidence of progress needs to be incorporated throughout a learning programme using a variety of techniques. Progress at particular points in time should be described fully in relation to both the cultural context and regular school curriculum. Reporting of progress should occur in written and oral form in convivial gatherings with parents and include practical artefacts to demonstrate the comments from teachers that are made. The cooperative nature of Indigenous life suggests that descriptions of learning and proposals for further activity should take precedence over graded judgements when speaking with Indigenous families and children.

Section 3: Progress with Learning

Literacy

Progress (brief space or box for comment)
Evidence
Next steps

Numeracy

Progress (brief space or box for comment)
Evidence
Next steps

Physical, Personal and Social Learning

Progress (brief space or box for comment)
Evidence
Next steps

Discipline-based Learning

Progress (brief space or box for comment)
Evidence
Next steps

Interdisciplinary Learning

Progress (brief space or box for comment)
Evidence
Next steps

Summary of learning progress
(As much space as possible for descriptive comment.)

Summary of immediate steps to be undertaken
(As much space as possible for comment.)

Student:
Family member:
Year Level Coordinator:
Indigenous Education Coordinator:

An education plan of this type attempts to combat colonial approaches to learning being imposed on Indigenous children by insisting that learning be accurately described rather than vaguely measured. This is a key strategy to implement participatory narrative inquiry and to construct Indigenous exemplars of knowledge and practice. Accurate description is of course an empirical measure in its own right and allows for the nuances of learning to be more clearly identified over time. The question of Indigenous literacy cannot be stressed too strongly including the place of Indigenous languages across schools. While Indigenous children and their families have a democratic right to participate with and study their own language in schools, the situation that exists is diverse. Student education plans will need to take account of the fact that very few schools will have access to complete local languages and will most likely attempt to incorporate what they can into their framework of Standard Australian English. This issue needs to be negotiated with Elders and communities so that a respectful mix of regular content and teaching can include local Indigenous culture, language and history. There is a cognitive and cultural two-way balance that needs to be struck here bearing in mind the often pressing requirements of the regular curriculum from state authorities.

Culturally Inclusive Curriculum

Given that the *Wannik* policy in the state of Victoria emphasises culturally inclusive curriculum, it is necessary to consider what its main features might be from an epistemological point of view. The following story may act as a prompt for this discussion especially in regards to the knowledge of two worlds that is required and the implications for curriculum. During discussion at a meeting of Canadian Elders, Peat (1994, p. 57) reports that talk turned to the role of their local school:

> It was at that point that an old man began to tell a story about the time he was a boy and had to make a long trip along the Yukon River to Dawson City. The boy had 'broken down' – maybe he was driving an old pickup truck. At any event he faced a journey of over one hundred miles on his own and under adverse conditions. After telling the story, the old man began to talk about his grandson who had gone to the school. His grandson could now read and write, but the old man was sure that if his grandson were to have made the same journey alone he would never make it back.

There is a humble attempt being made here by one culture through story to express its concerns in relation to another. How can important knowledge be accessed so that it provides advice and understanding for all children? The story suggested that a range of knowledge was needed especially for application in practical circumstances and indeed, that a combination of native knowledge and mechanical knowledge was necessary for survival. According to Peat (1994, p. 58), the story also brought an awareness 'of how people change when societies clash and the knowledge of one begins to dominate and control the ways of seeing of the other'. It is important to note that the story was offered for each person to consider and interpret, rather than to provide answers that had to be accepted.

This scenario can be generalised somewhat in that it describes two participants or cultures brought together by an event of mutual concern, a truck breaking down in difficult weather. They each have their own experience that they bring to bear on a particular set of circumstances. One has a limited understanding of nature, but has been involved in similar mechanical events in the past. The other deals with such matters of country every day and has a broad background in working with similar problems. For either culture the current problem can only be related to an incident of country or mechanics whether that incident is appropriate or not. On the other hand, when the frame of reference of a culture is broad, there are many more connections with experience that can be made, making the analysis and prognosis much more accurate. Interestingly, when a new point of view is offered from one culture to another, it can be readily accepted as being reasonable, provided that it can be located within the spectrum of experience that is available. In other words, if a culture is isolated and insular, it will have difficulty in resolving new social issues as they emerge. The story of the Elder raises the significance of cross-cultural understanding and relationship between people, that is the bringing together of different experiences within an atmosphere of respect to consider an important problem or issue so that a way of proceeding can be agreed and implemented. It was his way of coming to grips with white schooling and the nature of curriculum.

For cross-cultural purposes, Indigenous children will appreciate a curriculum that is discursive and active and attempts to establish situations like the scenario above that requires different experiences to be encountered and seriously considered in relation to different practical problems. It has been suggested previously that a cross-cultural curriculum of this type could include features such as two-way-inquiry learning, participatory narrative inquiry, exemplars of Indigenous knowledge and practice and community learning circles. This provides added structure and purpose to the regular curriculum for Indigenous children and enables different cultural perspectives to come together to pursue new ideas and practices within schools. Narrative inquiry curriculum encourages the entire curriculum to be seen as part of the student's continuing life narrative from which major themes and ideas can be identified as the basis of ongoing investigation. This allows the child's Indigenous knowledge to frame learning, rather than content being imposed from the regular curriculum. Links then need to be made in a two-way process between the knowledge of both cultures.

With the best of intentions, a compassionate and responsive education system or school will not make progress unless the curriculum is based upon a genuine respect for and recognition of Indigenous culture in all its forms. Given the range of difficult and complicated issues raised above, it is clear that Indigenous communities wherever located need the support of experienced and sensitive educators to successfully implement culturally inclusive programmes. The nature of schooling that is provided needs to be negotiated with each community and once agreed needs to have the resources, collaboration and professional learning programmes that will enable sustainability to occur. Each local Indigenous organisation across the state can extend its reach in a community learning circle arrangement involving

Indigenous and non-Indigenous personnel, meeting regularly with the support of a small project team to assist the development of curriculum and to overcome problems as they occur.

Circumstances will vary markedly in different countries, but the following broad guidelines can act as a beginning point for the support of culturally inclusive curriculum in all schools. Such curriculum development should be undertaken with the following:

- Guidance of a detailed education action plan regarding the implementation of state policy that focuses on a framework of community participation, Indigenous knowledge and development of a culturally inclusive curriculum.
- Support of university project teams in relation to evaluation, research, seminars and workshops and annual conferences where learning circle experience is shared to benefit all.
- Provision of materials, publications and digital and Internet-based resources.
- Formation of a local Community Learning Circle or regional Indigenous Education Roundtable representative of parents, teachers and students, chaired by an eminent Indigenous person and meeting once per every school term. The purpose of the circle or roundtable is to review progress on Indigenous education, curriculum and assessment and to prepare a summary report for school communities and interested organisations.

Case 2: Acting on Educational Practice

Once a democratic and culturally inclusive curriculum is in place at the primary and secondary levels, it then becomes possible to consider how Indigenous students can move and progress throughout the system and the curriculum including the transition to employment. This is called the pathways question, or how it is ensured that the organisation and procedures of curriculum do not disadvantage Indigenous students as they seek to gain cross-cultural knowledge and understandings. Coping with the formal examination and obtaining appropriate credentials and certificates along the way will also be required. Establishing student pathways that provide non-traditional access to tertiary study are particularly difficult as this is where cultural reproduction can be either substantially enhanced or inhibited. Meeting the requirements to move to employment, ongoing training and perhaps apprenticeship can also be arduous for marginalised students particularly for Indigenous students and students of colour who need to find sympathetic employers in the regions and towns. Like all other educational initiatives, pathways of equity and opportunity need to be built and defended in relation to the local conditions that exist.

It cannot be repeated often enough that Indigenous students and their families need to ensure that they have a close working relationship with teachers. It may be the case that Indigenous parents do not have a detailed and direct experience of the workings of mainstream schools and there may be a number of stereotypical views to overcome. For example, it may be thought that the foremost purpose of schooling

is to pass on predetermined knowledge to children who are then tested to ascertain the amount that has been retained. The notion that schooling provides a framework for students to construct their own ideas and to evaluate the ideas of others may be somewhat alien. Community members who accept the word of Elders as constituting the fixed reference point for culture and knowledge may find a teacher's support for inquiry learning inappropriate. This means that a respectful relationship must be carefully erected over a long period of time, where both cultures can begin to appreciate the other. For a successful application of narrative inquiry and exemplar production as described above, such a relationship must be in place if progress on literacy and numeracy in particular is to be achieved.

A point of discontinuity in the educational process is the gap that exists between primary and secondary schooling. While it is generally true that primary schools concentrate on language development through activity and problem-based learning, primary teachers may become a little anxious as the transition to secondary school nears. There is sometimes a tendency to accelerate programmes at this time in an attempt to cover what is seen as necessary content and to make sure that students are ready for a big step in their lives. On their behalf, secondary teachers who often receive students from a number of different primary schools can often spend considerable time revising primary work so that all their students have a common or similar starting point. Interestingly enough primary teachers often comment on how much time is allocated to repeating work that they have already covered, while secondary teachers can comment on what they perceive as a lack of progress for their new pupils. It is perhaps understandable that the discontinuity between the two sectors and their different approaches to teaching and learning give rise to such perceptions. To ensure a much smother pathway between primary and secondary schooling, it seems appropriate that teachers from different schools are able to discuss their different programmes over extended periods of time and that adjustments can be made at each level so that they are more congruent. Strategies for inclusive curriculum and for meeting the needs of diverse student populations should feature in these discussions.

At some point during the secondary years, students will think about leaving school to enter the world of work. Some countries may have a differentiated secondary curriculum where often based on test results and/or parental preference, general, vocational and abstract steams will be organised. This means that a prediction about a child's future will be made and what their interests will continue to be as the years proceed. Many countries have also attempted a comprehensive curriculum where rigid divisions between areas of knowledge are not made and all students are encouraged to involve themselves across the broad spectrum of intellectual work. It could be argued that a challenging comprehensive curriculum is the best vocational and life experience of all, especially in the globalised economic networks that have spread across the world. In many respects, it is an easier proposition to establish a differentiated curriculum than to ensure that a comprehensive approach can be followed in all schools, in all classrooms, at all times. Whatever type of curriculum is implemented, however, must ensure that the transition to work can be undertaken without unnecessary difficulty and that employers are fully aware of

the approach that has been adopted. For many Indigenous families, the obtaining of full- or part-time employment and training is enormously significant as it provides much needed income and is a source of great pride within the community. Secondary schools have a major responsibility to ensure that the connections between applied and abstract learning are close and investigated and that the transition to work is assisted as much as possible.

Enabling the educational pathway for Indigenous children can be strengthened through the employment of local Indigenous people in schools. In Australia, for example, it is common for Indigenous teacher aides to be employed to work with Indigenous children in classrooms, or in small groups and to liaise with parents on all school matters. This strategy is particularly important if not essential in mainstream schools where many staff may have had little experience in working with Indigenous children. Such aides are employed by the state as a special category of staff when a particular school makes a submission for funding. The provision of teacher aides could mark the beginning of a career structure (Pearl and Riessman, 1965; Pearl and Knight, 1999) within neighbourhood schools for Indigenous people and ensure that members of the local community can establish a paid career for themselves in their own country. A range of positions could be made available at the school including those of mentor, community liaison, teacher aide and teacher assistant. For those Indigenous people who wish to become fully qualified teachers, provision should be available for part-time study while continuing to work at the school within the local community on an appropriate wage. Pathways of this type that encourage Indigenous participation in education with economic support are a long-term means of connecting Indigenous families with non-Indigenous institutions so that their practical cultural understanding of schools is increased and they are in a much stronger position to participate and advocate as citizens of equal rights and standing.

Student portfolios that document a student's education over many years can be an important mechanism to open pathways along the way. As mentioned above, the gap between primary and secondary school can be difficult, but would be assisted greatly if the different schools had an established transition programme that involved the detailed discussion of student learning portfolios. It is certainly recommended that this be so with the application of the exemplar process. Portfolios can also be used as a record of secondary schooling and, where appropriate procedures have been negotiated, can be the main evidence for application to university. It is possible for university staff to have a partnership arrangement with schools where they work with staff and students over the senior secondary years to compile portfolios around agreed criteria. A part of this arrangement may involve teachers rating each portfolio and then coming to a final decision about the suitability for university selection in discussion with university lecturers. Such a negotiated process is of importance for Indigenous students where university entry is usually based on formal, external and culturally exclusive examinations. A school–university partnership agreement that builds connections between Indigenous and non-Indigenous knowledge and which results in a recognised portfolio of student work combats the ideology of examination and positivist knowledge and

constructs a different understanding of university life than might have been present before. Rigid structures are replaced with flexible pathways.

Case 3: Acting on Pedagogy

Indigenous education will not be well served by a narrow and conservative view of pedagogy. The examples given above of policy action regarding culturally inclusive curriculum and of practice action regarding student pathways for education and employment, indicate that confining pedagogical action to the classroom will have limited effect. If education is about the transformation of views and understandings through processes of democratic inquiry and reflection, then approaches to pedagogy must connect with the social, political and cultural context within which such views are located. This is not a process of conversion or indoctrination where the incorrect views of students are brought into line with the correct views of the state, but a process of transformation where ideas and practices are strenuously investigated, refined and critiqued. In a democratic inquiry classroom, teaching does not proceed through passive instruction, but through active construction, where in essence all learning and understanding is based upon the personal experience and reflection that schools encourage. Pedagogy of this type has a critical character, one that sets about challenging the values and authority of traditional disciplines and subjects. It does not automatically reject aristocratic and colonialist knowledge and indeed is most respectful of knowledge that appears to accurately describe and explain the social and physical worlds, but it does demand thorough appraisal of all knowledge before acceptance. Critical pedagogy is an approach therefore that acts in the interests of Indigenous families and which should strengthen the movement for culturally inclusive curriculum in schools.

Perhaps the most important factor that can assist Indigenous education is a vibrant and independent education profession. The profession needs to be well organised at the national level in all countries to take up all the major issues that prevent high quality schooling for all citizens including universal primary education and universal secondary education where it can be funded, the education of women regardless of background, literacy and numeracy for all as a democratic right and the provision of comprehensive education that enables both personal fulfilment and economic pathways. To achieve this aspiration for all citizens in all countries is a huge task and for many countries, a task that remains beyond reach for economic and political reasons. The education profession in all countries, however, has a singular responsibility in pursuing such matters both in establishing international links for support and in developing its own professionalism strongly. The education profession must also be vigorous in ensuring that education programmes are as democratic and equitable as possible and that the needs of marginalised children are being met. Being a professional teacher in whatever set of social circumstances means acting to change and improve the learning conditions for all children. It does not mean being confined to classroom work.

A professional is someone who has completed a programme of rigorous initial preparation involving specialised knowledge as decided by the profession and who has been approved by the profession as a registered practitioner with the right to exercise autonomous, professional judgement. Most importantly, professionals negotiate the nature of the relationship with members of the public who come to their door. A professional undertakes regular professional updates, is a member of the professional organisation reading and contributing to the professional journal and acts in a professional manner according to the established ethical code. As already mentioned, because of their dedication to the field and its participants, professionals are committed to take whatever action they see fit to protect and enhance the manner in which they conduct their work. This is usually done through the aegis of a professional body to which all members of the profession belong.

Many teachers around the world have never had a professional organisation of this type, an organisation that controls entry and career paths, oversees ethical conduct, accumulates experience, documents practice and engages research. Some might even insert the 'moral imperative of educational practice' or 'vocational calling' at this point for all those who work with students. Under this definition and at this time, teachers may not completely fit the professional mould. There are, however, many aspects of professionalism that comprise their daily activities and most importantly that determine their relationship with students, their parents and with each other. While it is unlikely that most teachers will resign en masse to reconstitute their relationship with employers, it should be possible for a range of initiatives to be taken to strengthen their independent professional role. Perhaps the most important of these is a clarification of the relationship that teachers have with their own knowledge.

Some years ago, the noted American educator Lee Shulman, proposed a number of teacher knowledges that all teachers bring into play every day. These involved curriculum knowledge, subject content knowledge, pedagogical content knowledge, general educational knowledge and the like. He pointed out in a Melbourne lecture that it is more important for students to develop a depth of understanding of a smaller number of key ideas, rather than to skim across the surface of large tracts of subject content. Shulman also suggested other forms of teacher knowledge such as knowledge of specific cases where students learn or have difficulty in learning and strategic knowledge that enabled different approaches to be used when judged applicable. The proportion of teachers in various countries who see themselves and their work in relation to these knowledges is not known.

Does a primary or secondary teacher, for example, think of himself or herself as a poet or mathematician, working with their own intimate knowledge and insight? On the other hand, does a teacher deal with the remote knowledge of others, of literature before recess, a teacher of mathematics after recess, a curriculum labourer at the end of the day, a purveyor of homework in the evening? In this concept, the teacher is made up of a series of separate, chilly, disconnected parts, with a true moral and intellectual 'centre' lying somewhere else. Is there another more holistic knowledge, that embraces yet extends beyond the traditional teaching role? Could it be that individual subjects while important in their own right, merely illustrate

how we think the social and physical universes work and provide some indicators for making sense and meaning? Is there baseline teachers' knowledge of this type that is missing?

If teachers as professionals cannot readily identify or do not substantially agree on the nature of their work and the integrated knowledges that they need to invoke, then their relationship with the full range of teachers' knowledge will be diminished and their professionalism weakened. Being a teacher under such circumstances will be very much a hit or miss affair. The British philosopher Paul Hirst (Barrow and White, 1993) may have been on the right track. Hirst commented that education is not so much about the transmission of known subject content through assumed abstract procedure, but rather immersion in social practices through a process of practical reasoning. If the latter, but reality is the former, there will be inevitable tension between student and teacher which will make the pursuit of learning extremely difficult in schools.

This idea of exploring social practices through practical reasoning as the basis of the school curriculum may be the missing knowledge that teachers need to strengthen or re-establish. Should we really be concentrating on so-called 'disciplinary' knowledge, or instead, how children work with the historical and cultural basis of their personal and community interest, so that they can build and extend their own understandings and meaning? Practical reasoning that encourages a personal theorising across all experience has little place in the passing on and examination of predetermined facts and figures of the state-determined curriculum.

The role of 'teacher as technician' has gained precedence over recent years, with an emphasis on what is called 'teacher quality'. This has come from the 'effective schools' movement (McGaw et al., 1992) where analogous to industry schools are seen as being run by an efficient manager and where 'expert' staff work within the company ideology and direction. Correspondingly as noted earlier, the notion has arisen that factors within schools such as the teacher are more important than factors between schools such as family background, cultural experience and government provision. An emphasis on 'teacher quality' means that not only is the teacher totally responsible for outcomes, but can overcome all outside influences. This is a heavy ask for employees who are usually excluded from the key formative aspects of the educative process.

So what does all this mean for the professionalism of teachers? It means that the perception itself needs to be reconsidered and its various aspects strengthened in the daily operation of schools. In particular, the various knowledges of teachers' work need to be identified in a holistic, ethical way and strengthened across the curriculum. The relationship that teachers and students have with their own knowledge, as distinct from that which teachers are expected to pass on to students, needs to be elaborated and become the basis of curriculum design and structure. Curriculum is then transformed into a dynamic, personal endeavour for both teacher and student, not something that is imposed from outside for political rather than educational intent.

Teachers may not feel identified by their teacherness in the same way that other may see themselves as Indigenous, European or Australian, as Catholic or Buddhist,

as swimmer or marathon runner. It may be that teacher identity is still an obscure property, still being constructed in relation to external pressures as the defining feature of the education field. There may not be a groundswell of support from amongst teachers for the creation of a new professional body to take up these issues, to describe identity and by so doing, to fundamentally change the nature of teachers' work. Or, the conditions that exist in particular countries may make this extremely difficult. To make the point of professional weakness may demonstrate at the same time that the comodification and marketisation of education has proceeded without restraint precisely because teacher identity, the relationship between teachers and their own professional knowledge, has been feeble and vulnerable. To transform this situation through professional action of policy, practice and pedagogy may be the way forward in the interests of marginalised students and Indigenous families around the world.

Chapter 15
Education as Democratic Public Sphere

> *Revolution is a critical process, unreliable without science and reflection. In the midst of reflective action on the world to be transformed, the people come to recognise that the world is indeed being transformed (Paulo Freire, 1972, p. 74).*

Reconciliation between Indigenous and non-Indigenous peoples can have different meanings within a particular society and at particular historical times. For example, the former Council for Aboriginal Reconciliation in Australia released a Draft Document for Reconciliation in 1999. A number of national strategies to advance reconciliation and to support recognition of Indigenous rights were proposed such that:

> The strategy will recognise the unique status of Aboriginal and Torres Strait Islander peoples as the original custodians of Australia, their continuing cultures and heritage and their rights under the common law. It will recognise the unique relationships of Aboriginal and Torres Strait Islander peoples with their traditional lands and waters and the importance of traditional land management knowledge in sustaining the natural environment. The strategy will also recognise Aboriginal and Torres Strait Islander peoples' continuing aspirations for greater recognition and self-determination within the framework of the Australian Constitution and will propose strategies for increased representation in Australian parliaments.

Like many broad statements of intent, the reconciliation document could be criticised for what it emphasised and for what it omitted. Progress has been slow in recognising that injustice for Indigenous peoples continues to occur, that compensation for acts of discrimination has often not been settled and that improvements in Indigenous health, housing, employment and education are seriously lacking. On the other hand, there is increasing respect for Indigenous culture and identity, a growing understanding of shared experience and history and that an awareness of Indigeneity constitutes an important aspect of Australian nationhood and citizenship. These are matters that need to be taken up in all areas of life and work where the global and the local, the general and the personal come together every day. It is difficult to envisage any other area of public policy that will make a greater impact on these matters and enacting the specifics of the draft declaration above, than public education. It is in the schools of the cities, towns and communities spread across the vast Australian landscape where families from all walks of life assemble and grapple with the

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great ideas and dilemmas of their time. An overview of this function, of the place of teaching and learning in encouraging critical citizenship and self-determining creativity for everyone regardless of social standing needs to be constantly debated and consolidated through civic engagement.

What seems apparent is that reconciliation will have a limited chance of success if the dominant feature of globalisation encountered in Chapter 1 remains unrestrained marketisation involving privatisation of profit and socialisation of loss. This is so despite those who argue that globalisation has to say the least passed its peak (Saul, 2004). For Indigenous communities, a market approach to education will not do, where issues of equity, democracy and culture are sacrificed for commercial interest. Education in its broadest sense is about investigating and profoundly questioning the social and physical universe for the enhancement of critical citizenship and personal creativity. Learning is a given not an option and substituting market forces for epistemological satisfaction will only distort and alienate families, students and teachers. This is really the significance of the Indigenous issue as it struggles to find its historic position of respect and recognition within the general human experience and knowledge. As we all attempt to cope with the pervasiveness of Googleisation, Hollywoodisation and McDonaldisation, as well as the continuing wars of aggression around the world, a new concept of education, or indeed a new way of thinking about education must be found. Eloquently for this quest, Bourdieu (2004, p. 79) describes his own journey as 'the search for the socio-transcendental conditions of knowledge' and goes on to explain:

> The logical positivists continue to posit that scientific objectivity is only possible by virtue of an *a priori* mathematical construction which has to be imposed on nature in order for an empirical science of nature to be possible. But this underlying mathematical structure is not, as Kant would have it, the expression of eternal and universal laws of thought. These *a priori* constructions have to be described as languages.

Bourdieu discusses the idea of 'conventions' rather than 'laws' within mathematics and science, in the same way that Kuhn talked about paradigms and exemplars and Papert the notion of mathetics and bricolage. These thinkers lay the groundwork for breaking away from conservative views of education located within the dominant economic system and reaching out for new culturally inclusive forms that will engage all children from the mainstream and margins of society. Here, we can distinguish between the internal rules, principles and truth claims that exist within fields of activity and the external choices that participants make between different fields of activity. Both of these processes are decided by humans for their own purposes and can be changed when necessary. The market has no interest in such an analysis or process, but the education profession working in partnership with local communities has, it is in fact its reason for being. We must look to the education profession in the first instance for its commitment and capacity to cut through the intellectual ties that bind and to open up new progressive fields of imaginative and creative educational endeavour for all children.

Being a proficient and professional teacher in Australia and similar countries is one of the most difficult and complex occupations imaginable. All teachers are

confronted with carefully analysing the mix of socio-economic and cultural factors that present and design appropriate learning strategies that engage all students. Within this context, the following essay considers the purpose and structure of initial teacher preparation and possible changes to more traditional arrangements. It advocates a new type of school–university partnership where reflective cycles of practice theory establish a close relationship with knowledge for all participants and where personal practice is the necessary condition of learning. Schools and classrooms are theorised as democratic public spheres where participants pursue understanding of serious issues for equity and the public good through an all-sided, democratic dialogue. Implications of partnership and public sphere for a new form of educational practice are discussed.

Teacher Education in Australia

As one of the world's most wealthy countries, Australia is making progress towards a situation where it is expected that most young people will complete 13 years of schooling. While it is generally the case that primary schools are seen as places of broad language development, a settlement has not been reached on the purpose of a mass system of secondary schooling. With a retention rate of approximately 70–75 percent of students to the final year, it is still not clear whether secondary schools are mainly concerned with preparation for employment, or preparation for university. There appears to be increasing fragmentation of the curriculum between academic and vocational pathways and the notion of a broad, liberal education in the Deweyan sense for all young people regardless of socio-economic background does not feature strongly in the debate. Increasingly, policy decisions support a market view of education and not an educational view of markets.

Initial teacher preparation is the responsibility of universities involving four years of discipline and educational studies. Most states require registration from a regulatory authority before employment can proceed (see for example, VIT, 2006). Schools in Australia are the responsibility of state governments and curriculum is generally guided in terms of broad policy directions and supportive framework documents. Teachers work within the policy of their school and exercise professional judgement in the specific detail of curriculum and teaching. Currently within Australia, the curriculum framework for both primary and secondary schools often consists of eight Key Learning Areas (KLAs), although a number of states are now moving to more open and flexible arrangements. University programmes for preservice teachers therefore need to ensure that graduates are familiar with a range of approaches to curriculum design and are adaptable when organising their teaching to meet the learning needs of their students.

The years immediately following World War II saw a rapid expansion of secondary schooling in Australia as an essential aspect of post-war reconstruction. The 1960s and 1970s were characterised by a move away from a set syllabus towards 'school-based curriculum development' and greater autonomy for classroom

teachers. The word ‘syllabus’ as a specification of subject content is now only infrequently used, with the term ‘curriculum framework’ being preferred. Since the mid-1980s, however, a tension has arisen between the professional rights of teachers to determine the teaching and learning programme for their students and more conservative political trends to centralise curriculum imperatives. This reflects a general economic situation that focuses on budget efficiencies and strident criticism of public sector institutions. Accordingly, graduating teachers often find themselves in difficult circumstances where they need to grapple with a complicated maelstrom of political, educational and cultural factors in their schools and classrooms that may have been difficult to completely identify and analyse during their preparation. The nature of the practicum then takes on increasing significance.

In the state of Victoria in Australia, pre-service primary teachers are required for registration purposes to complete 80 days of school experience over their 4-year Bachelor of Education degree. Secondary teachers usually complete a 1-year graduate diploma in education following their undergraduate degree. This generally means participation in different classrooms each day while at school and the formal planning and teaching of at least one lesson per day. Universities pay each classroom teacher a small allowance for the mentoring of pre-service teachers that, over the course of a year, amounts to a considerable proportion of an education faculty’s budget. While most universities attempt to have lecturers visit all pre-service teachers when on placement, the pressures on time and budget means that this does not always occur. For these reasons, the question of the practicum in terms of extent, funding and support has been somewhat problematic for many years. For example, a review of initial teacher preparation conducted for the Parliament of Victoria (Victoria, 2006, p. xxii) commented in the following terms:

> The teaching practicum was a key area of contention throughout the inquiry, with the overwhelming majority of stakeholders believing that that the current time spent in practicum, as well as the quality of the experience, is largely inadequate. Many called for teaching practice to represent at least 25 percent of pre-service teacher education, with some suggesting a 50 percent split between university classes and school-based training.

Consideration of practicum arrangements in this way is really demonstrating that a consensus has not as yet been reached on the nature of knowledge, let alone the purpose of schools and the role of teachers within them. At the core of this debate is the relationship between human social practice and how we theorise that practice, perhaps the main problem that schools have yet to resolve. If we accept that knowledge is known and set, then it can quite easily be passed on from expert to novice. Conversely, if we view knowledge as evolving through collaborative endeavour, then the development of personal understanding over time becomes more appropriate. Both tendencies are of course seen in schools and curriculum, with the latter view being in the minority. If schools reflect the society in which they are located, then Bourdieu’s notion of cultural capital (Bourdieu and Passeron, 1977) provides an explanation. Under current economic arrangements, schools merely reproduce the relations of power and privilege, the advantages and disadvantages that exist, in spite of the efforts of many progressive educators to change to more equitable

systems for all children. How the practicum is conceptualised and organised then has implications for not only the operation of schools, but the social justice fabric of the broader society.

Australian schools have always placed importance on equity, with a watershed report from the Federal Government (Karmel, 1973) attempting to formalise both policy and programme considerations including the funding of non-Government schools. Since that time, provision for disadvantaged schools many of which are in lower socio-economic locations, has been constantly debated. At certain periods equity is viewed as being pursued through a common curriculum for all, while at others, the idea that the curriculum should be differentiated between vocational and practical or abstract and academic pathways tends to dominate. In discussing this question, Teese (2006, p. 155) comments that 'Equity must include areas of the curriculum of high cognitive demand' and he notes that the changing social and educational conditions have caused many disadvantaged schools to be pushed 'out of the older academic areas and into newer and vocational studies'. These trends show the manner by which those Australian schools that are mainly comprised of disadvantaged or marginalised young people, but which must contend at the same time with a curriculum of cultural reproduction and social power, are continuously buffeted by political pressure and criticism, the changing theorising of educational position, the struggle for resources and the need to establish a robust and productive curriculum. Those who are concerned with pre-service teacher education, arrangements for teachers' work and the learning of school students have a joint interest in pursuing such matters together.

School–University Partnerships

In the late 1980s and early 1990s in Australia, a series of Federal Government reports concerned with teacher quality raised a number of issues regarding teacher education (Dawkins, 1988; Schools Council, 1990; NBEET, 1990a). These issues included the quality, structure, length, content and funding of pre-service teacher education. While the reports advocated closer cooperative working arrangements between the main parties involved in teacher education, the concept of 'partnership' although mentioned did not feature strongly. For example, a summary report of major documents (NBEET, 1990b, p. 14) noted that 'any co-operation there is between higher education institutions, employing authorities and the teaching profession in teacher education matters is isolated, cursory and curtailed by a reluctance to relinquish any element of control'. The type of relationship being considered here concerns the coordination, decision-making and overall development of teacher education, as distinct from the daily implementation of programmes in schools and universities. This is a sensitive issue, given that higher education institutions are autonomous and responsible for running their own programmes, schools operate within frameworks of state policy and employing authorities have their own priorities regarding staff planning and recruitment and the development and support

of curriculum generally. Registration bodies and professional associations also have a vested interest in any cooperate arrangement.

At this time of the early 1990s, it can be suggested that the concept of partnership in teacher education in Australia was not strongly developed. It was mentioned in reports mainly because of an 'accord' approach that was being followed by the federal government of the day involving government, unions and business. The language of the accord including the idea of partnership found itself in many government documents, including education. This broad view of partnership is not strong in Australia today although the new federal government elected in 2007 has combined education with the notions of productivity and skill development and sees an expanded role for commerce and industry in education. On the other hand, some initiatives have been taken over many years by schools and universities to implement forms of partnership for the conduct of specific pre-service teacher education programmes (Cherednichenko et al., 2002). This notion of partnership can be understood in two different ways. First, the coming together of stakeholders to share information and to discuss problems that have emerged such as funding for supervision and the difficulty of finding school placements for pre-service teachers. Second, how the professional capability of each pre-service teacher can be enhanced to ensure a comprehensive 'readiness to teach' in both practical and theoretical terms. In this latter view, partnerships are established between schools and universities to strengthen the relationship with professional and personal knowledge that enables each graduating teacher to have an informed and defensible philosophical framework within which to locate their teaching.

In an influential paper, Shulman (1987) identified a number of 'teacher knowledges' that are required for proficient teaching. These included pedagogical, curriculum and educational knowledges and knowledge of learners, context and outcomes. This work indicates that the teacher's role is complicated and does not merely include the passing on of subject content from those who know to those who do not. There is a recognition that the teacher must draw upon a wide range of understandings at any particular time in the classroom when interacting with different students and that a restricted range of teacher awareness will make those interactions weak. A school–university partnership therefore needs to ensure that an agreement exists between the classroom teacher (called 'mentor' or 'supervisor' in Australian teacher education) and the pre-service teacher to pursue the varied and interrelated aspects of teachers' knowledge so that a more profound understanding of school student learning occurs. This is an essential detail of partnership, that is the purpose of cooperative arrangements between the school and university is to focus on the learning of school students and by so doing, to enhance the professionalism of both mentor teachers and pre-service teachers alike.

At Victoria University, Melbourne (Victoria University, 2008) for example, the organising principle of partnership-based teacher education is that of an investigation and theorising of practice for change and improvement. In grappling with the problem of how to integrate practice and theory and to overcome the traditional split between theory being covered in the lecture theatre and practical implications being encountered in the school classroom, it has been decided that an integrated

social and educational practice is the starting point for each pre-service teacher. This does not exclude theoretical ideas of course, but means that pre-service teachers spend as much time in the classroom as possible and use this personal experience as the basis for reflection both at school and at university. This approach is called learning from 'authentic' environments and involves a continuity of experience, the acceptance of responsibility for school student learning and participation in the full life of the school, a range of activities which in total give credibility to the teacher education programme. This concept of practice does not involve merely 'doing' or attempting a superficial 'what works' approach, but encourages an integrated action/reflection/change process where the practitioner learns from the ongoing cyclic experience of thinking/doing and collaborates with others in the development of meaning.

Explicitly bringing practice and theorising together in this way is a difficult task for all concerned and cannot be assumed to happen elsewhere. For instance, in a review of research studies involving teacher preparation, Wilson et al. (2002, p. 196) found that the research base is not strong. They did suggest that the manner in which cooperating teachers work with novice teachers varies ranging across an emphasis on subject matter, the maxims of teaching and 'socialising student teachers into the status quo of schools or into the co-operating teacher's own practices'. They went on to comment that the role of cooperating teachers may also include the 'enabling of innovation and independence'. In extending this latter theme particularly around the issue of diversity, Nieto (2000, p. 186) makes a strong case that teacher education has 'a critical role to play in pushing the agenda for social justice and equity in our nation's schools'. Initial teacher education programmes at Victoria University do attempt to 'enable innovation and independence' as well. Consequently they do not involve 'foundation' studies in educational philosophy, psychology, sociology and the like, but rely on important ideas and themes from these fields being integrated when appropriate and when significant issues are confronted by the pre-service teacher.

The principle of integrating practice, theorising, reflection and change demands a close relationship between school and university so that dilemmas that are encountered at school have a mechanism for being raised at the university and that there is always a determination to introduce broader ideas from outside the group to inform and challenge. In this way, teacher education is not dominated by external grand theory, but involves the personal theorising of practitioners in relation to the understandings and guidance of others. This process of personal theorising to guide practitioner action needs to be supported by how teacher education is structured such as the role of lecturers in introducing theoretical ideas, the use of formal literature and the incorporation of electronic forms of professional discourse. In addition, account must be taken of the capacity to have all pre-service teachers visited on a regular basis when at school, the organisation of meetings of school clusters and partnership teams for the discussion of problems and ideas and the nature of formal assessment requirements at the university.

More recently at Victoria University, the idea of praxis inquiry (Cherednichenko and Kruger, 2003) has been raised as a means of taking partnership-based teacher

education to a deeper level. While praxis inquiry continues an emphasis on the concentrated reflection on and in practice, there is a set of subsequent questions involving how reflection proceeds and reflection on what? A process has been developed to aid reflection that involves descriptions by pre-service teachers of their school and classroom practice and other written thoughts regarding how such practice can be interpreted, theorised and changed. Over the past decade, case and commentary writing has been successfully used to assist pre-service teachers in their writing and descriptions (Cherednichenko et al., 1998). In terms of the Shulman knowledges mentioned above, reflection can be directed at one aspect of teachers' daily or general practice, a combination thereof, or attempt to reveal overarching epistemological and ontological questions. These may involve questions such as 'Can all students learn?', 'Why is democratic curriculum important?', 'Do children from lower socio-economic backgrounds see the world differently?' These matters are reflected in the way that classrooms are organised, the interactions that occur between teacher and student and how different children approach different subject content. Without an evolving and informed philosophical view, however, it is very difficult for any teacher, let alone a pre-service teacher, to arrange their teaching programmes to meet the diverse learning needs of all children in a particular class.

The notion of praxis inquiry being developed here builds on the advice of Paulo Freire (1972). In his concern for ordinary people living under oppressive conditions, Freire proposed that it is possible for people to move through various phases of human consciousness. These phases included the intransitive, semitransitive, discursive and critical and involved a different relationship with knowledge as the social conditions altered. In very oppressive circumstances, for example, it is difficult to establish anything other than a direct relationship with experience and to be concerned in your thinking and action with matters other than survival. As conditions change perhaps even slightly, the opportunity is provided for a new relationship with knowledge, one that prises open the door of possibility. Eventually, a radical change may occur where the oppressors and their ideology are overthrown, radical new conditions are instituted and through new daily activity and practice, new thoughts emerge.

Freire conceived this process occurring on a national scale where the practice, theory and change cycles of life, or praxis. Here, the tensions and contradictions that exist between the experience and encounters that constitute reality for the citizens and the procedures, regulations and power structures that are enforced by those in control. We thus have praxis at an individual and social level that lead to breakthroughs in understandings and learning for everyone. Such conditions exist in classrooms as teachers, pre-service teachers and school students attempt to negotiate and reach settlements on how to construct and reconstruct their mutual experiential and learning environments. This is difficult to achieve of course if classrooms are teacher-dominated and behaviouristic rather than student-centred and constructivist.

Partnership-based teacher education can have profound implications for equity and democratic epistemology and therefore, Indigenous education. In setting up serious and respectful relationships of practice between all participants, the partnership can pursue knowledge in such a way that intellectual chains can be cast

aside and new vistas of learning encountered. This is of particular importance when working with students from lower socio-economic backgrounds and other groups marginalised by prevailing structures of power and privilege. The partnership is not directed at merely reproducing current curriculum forms and outcomes directed from outside the school and schooling systems, but is concerned to establish legitimate communities of practice that seek to wrest control for their mutual interest. For Freire, this establishes a critical relationship with knowledge and the capacity to innovate and change the world for more democratic and compassionate intent.

Educational Public Spheres

According to the German social scientist Jurgen Habermas (1992), there exists in society forms of democratic association where citizens meet and discuss issues of community importance. These associations are not recognised as formal decision-making structures in the sense of parliaments or local governments, but provide avenues for the development of informed and reasoned opinion amongst the general population. It may be of course, that such association does not agree with the decisions of formal bodies and in some circumstances, encourages debate that might otherwise be difficult or illegal and provoke the wrath of power brokers. Habermas spoke of the coffee houses of London and Paris of the 1600s as places where such democratic conversations could occur. Today, in countries like Australia, we could point towards trade unions, local neighbourhood groups, environmental organisations, women's groups and schools and universities as being emblematic of public spheres. In this regard, Eriksen and Weigard (2003, p. 179) note that 'The term public sphere signifies that equal citizens assemble into a public and set their own agenda through open communication. What characterises this public sphere is that it is power free, secular and rational.'

In her analysis of the approach adopted by Habermas, Fraser (1992) raised issues of power and exclusion within the public sphere. She expressed concern regarding the place of women and suggested a number of public spheres that could be formed by marginalised groups. In this way, repressed and disadvantaged people could establish their own discourses as a counter to the dominant discourses in society. The question here is whether the view of Habermas is somewhat idealistic, outdated and should be discarded, or whether it offers a useful model for adaptation as an avenue into participatory political life. It may be difficult to distinguish roles and identities when participating in a trade union meeting, for example, where power and ideological relations exist as compared with more informal gatherings that are held to discuss the issues underpinning the political decisions that must be made. It seems realistic that schools and universities could be considered as democratic public spheres where discussions of human rights, trends in history, developments in economics, politics and science and indeed war and aggression are studied and take place every day.

As Kemmis (2001, p. 24) explains in agreement with Fraser above: 'There is not just one public sphere, except in abstract terms; in reality there are many public spheres, constituted as *networks of* communication.' Accordingly, Kemmis and McTaggart (2005, pp. 584–591) have taken the notion of public sphere and have appreciated its significance for education. Following Habermas, they describe public spheres as having the following ten characteristics:

- Constituted as actual networks of communication among actual participants.
- Self-constituted, relatively autonomous and voluntary.
- Exist in response to legitimation deficits within current social practices.
- Constituted for communicative action and public discourse.
- Aim to be inclusive.
- Involve communication in ordinary language.
- Presuppose communicative freedom.
- Communicative power is generated through respect of participants.
- Indirect impact on public systems.
- Arise in association with social networks.

These characteristics encompass the issues raised above for partnership-based teacher education and seem to constitute a means by which pre-service teachers can locate their work in the broader public domain. It is particularly germane to note the emphasis on language and communication, non-coercive dialogue and the independence and autonomy of general operation. Conceptualising the work of pre-service teachers as taking place within a public sphere also means that the issues confronted within classrooms, schools and lecture theatres are intimately linked to the broader social trends that surround education. These educational issues cannot be isolated from the broader society as a whole or be resolved in a manner disconnected from the socio-economic environment. In a more formal sense, the public sphere consists of a number of discourses that enable communication to be grounded in an informed baseline of experience and to arrive at viewpoints that are defensible and realistic. The types of discourses that one would encounter in an educational public sphere are shown in Fig. 15.1below.

These discourses may not be found in all teacher education programmes, or be found systematically and in total. While it is not the purpose of a public sphere

Fig. 15.1 Educational public sphere

to reach definite conclusions on specific issues, it is the purpose to generate new ideas that are then available for implementation elsewhere. In Habermasian terms, this could be seen as communicative action informing strategic action (Habermas, 1984). Such ideas need to arise from interaction with social and educational reality and therefore will need to engage the range of discourses that make up social practice. Whether or not it is the public sphere that will spawn new conceptions, or whether this will occur in the heated crucible and contradictions of society that are then returned to the public sphere, may be a moot point for teachers. What is of significance under this model is that teachers have a theoretical construct of their work that links daily classroom tension and energy with the broader social realm so that the development of their teaching strategies occurs in a dialectical relationship with the socio-cultural basis of children's lives.

What are the practical implications of this notion of public sphere for the organisation of partnership-based teacher education that is congruent with Indigenous learning and aspiration? There appear to be six main and difficult considerations as outlined below:

1. In establishing a school–university partnership, doing and thinking are not separated from each other, but are combined at all times regardless of location.
2. The personal practice of educational work is seen as the driving force of teaching and learning as distinct from the imposition of external ideas.
3. Both logical-scientific and narrative forms of knowing are combined for pre-service teachers and for school students.
4. Engagement with the discourses of practice is systematically undertaken especially to link internal school issues with external socio-economic trends.
5. School communities and cultures need to be engaged with respect and understanding.
6. Formal course requirements and assessment procedures are democratic for all pre-service teachers and involve culturally inclusive approaches for all student groups.

This proposal will be difficult to achieve within school and university programmes. Taken together, however, they begin to open up the possibility of new approaches to democratic will formation for students and strengthening the professional identity of teachers. There is a view of working with integrated, holistic knowledge rather than the often disjointed segments that schools provide. The life experiences and cultural practices of participants are privileged, not to the exclusion of the different understandings of others, but certainly to the extent that the key role of teaching becomes the seeking of connections between personal background and privileged school knowledge. The process of teaching and learning involves both logical-scientific and narrative formats so that all children have appropriate avenues into knowledge and become serious and practising epistemologists in their own right.

Ensuring that all discourses of the educational public sphere inform communication of participants and challenge pre-existing ideas means that views that are

stimulated and nurtured have a realistic chance of engaging social and educational reality for progress and improvement. Initial teacher preparation in recognising this new environment, will need to ensure that methods of assessment do not undermine the notions of democratic, culturally responsive and communicative learning. Instead assessment should enable the new teacher to demonstrate learning in a variety of ways that do not demand judgements on ideological truth whether educational or social, but allow progress on the investigation of key concepts and practices to be freely displayed, discussed and critiqued.

Education and pre-service teacher education conceived as public sphere encourages pre-service teachers, mentor teachers in schools and teacher educators to begin to reform the practice of teaching and indeed the role of schools themselves. It also suggests a new form of teachers' knowledge and teacher theorising in terms of the evidence that is used to inform and ground teachers' work. As mentioned in earlier chapters, Donald Schon (1991) in describing the idea of 'reflection on practice' and 'reflection in practice' was supporting a debate as to whether teachers only think about their work after class, or whether this occurs during class as well. Here again, the split between doing and thinking, or action and reflection is being questioned, so that the integrity of learning for both teachers and school students is validated. That is, some practitioners including children do not act only, while others do not think only, but the work of all social and educational practitioners is considered to be a rich integrated tapestry of experience involving informed practice and a practical understanding. Again, as mentioned previously, this provides another basis for the recognition of all children regardless of prior experience and culture and the breadth of experience, perception and understanding that they bring to school.

Teacher Education of a New Type

Goodlad (1994) outlined the basis of school–university partnerships and the formation of professional development schools. He suggested that such arrangements enable a university and school districts to collaborate on matters of mutual interest. There is also opportunity for 'modelling new practices and immersing prospective teachers in them' (p. 115). Goodlad recognised that it was perhaps too optimistic to expect the one school to engage in research, innovation, teacher education and demonstration to visitors as well as be excellent in teaching. He therefore proposed one type of professional development school that pursued innovative practice and another that concentrated on teacher education. In his survey of school–university partnerships in Australia, Brady (2002) found strong support for such activity and the possibility of extending past traditional practicum models. There is scope therefore to continue the work of school–university partnerships in Australia already underway to encourage teacher education of a new type, teacher education that focuses on educational practice as the basis for establishing new relationships with knowledge and new equitable frameworks for learning. Restructuring and reconceptualisng teacher education is urgent and high stakes for families and communities. According to the Australian Council of Deans of Education (2004, p. 55):

> For all the talk of democracy and equality, opportunity is inherited – in the form of the wealth you are born into, the place you are born, or the colour of your skin or ethnic background. Education however is the main thing which differentiates democracy from the world of kings and subjects, lords and serfs, masters and slaves, men and women. If you are born into poverty, or on the wrong side of town, or of the wrong racial or ethnic group, you still have a chance and this chance comes from doing well at school.

To begin to put into place the conditions that may maximise this chance at life, the practice of teacher education as public sphere in many countries could be adopted and framed by the following arrangements, at least as an initial step:

1. That school–university partnership arrangements be established between the university and clusters of primary and secondary schools and be known as Professional Learning Clusters (PLC).
2. That the essential purpose of each PLC is to create a democratic, language-rich and communicative environment for the pursuit, evaluation, critique and public debate of professional practice and discourse.
3. That the PLC be culturally inclusive and ensure the democratic participation of communities, parents, teachers and students.
4. That within each PLC, pre-service teachers adopt flexible modes of organisation across schools in ensuring that partnership requirements are met over the duration of their pre-service academic programmes.
5. That the role of pre-service teachers within each PLC is to experience the full range of activities undertaken by school teachers including interaction with young people, curriculum design and implementation, decision-making procedures, classroom teaching, professional development, practitioner research and educational administration.
6. That each PLC is governed by a coordinating committee comprising school, pre-service and university personnel to plan and conduct professional learning, teaching and research activities for all participants, including activities that provide recognition and pathways to university programmes for school teachers.
7. That a proportion of classes within pre-service teacher education programmes including seminars, workshops, guest speakers and the like be conducted at both PLC and university locations.

It may be the case that several elements of the above framework already exist to one extent or another in teacher education programmes. It may also be that in many countries, such democratic and participatory arrangements are a long way from being possible and will involve courageous forms of struggle. One of the key points of difference, however, may be the requirement that conceived as public sphere, that is the Professional Learning Clusters, explicitly organise in such a way to link their educational concerns with the surrounding cultural and political milieu so that proposals accurately reflect the interests of families and are realistic for community adoption. In similar vein, Loughran (2006, p. 174) talks about ‘enacting a pedagogy of teacher education’ such that:

> Seeking to better understand one's own practices is a natural starting point for better understanding teaching about teaching and to impact on learning about teaching. The knowledge developed through such learning may initially be informing, applicable and useful to one's own practice, but when it creates the need to better articulate and communicate such learning with and for others, a developing pedagogy of teacher education is evident.

In this passage, Loughran connects with one of the key features of a public sphere when he draws attention to the need for the learning and knowledge that arises from practice to 'articulate and communicate' with and for others. No knowledge is an island and that which evolves from the collective experience is not only grounded collectively, but is available for public utilisation everywhere. Habermas again has something useful to say about the relation between the broad operation of society and the daily lives of citizens. He discusses what he calls the 'social macro-subject' (Kemmis and McTaggart, 2005, p. 579) as a view of the state (and of organisations) not so much as an all-powerful unified set of regulation and administrative authority, but rather a collection of more independent and autonomous sub-sections that find their own creative expression within the state apparatus for a different publicly-oriented purpose. Perhaps Freire had a similar arrangement in mind when he considered how social conditions can alter to form the basis of new equitable practices and ideas, even in the most repressive circumstances. A consideration of education and teacher education public spheres as located deep within the social macro-subject pursuing social and educational transformation is a conception of civil society that lifts aspiration beyond the narrow and immediate to the democratic and historic. It validates the role that every citizen can play in social progress.

Viewed in this way, teacher education that is strongly connected with local communities and their knowledge interests through democratic partnership arrangements brings all partners together on serious projects of mutual concern so that the way forward can be charted and implemented. The notion of education and teacher education as democratic public sphere provides a theoretical frame to guide this work and a reference point for when the journey becomes a little unstable. It ensures that the practice of partnership is undertaken with integrity and that learning outcomes as seen by all participants have rigour and credibility. While large-scale and progressive social change for ordinary families may seem remote at present in many instances around the world, such smaller-scale democratic work in local communities could dignify and transform lives in ways that make the impossible imaginable.

Indigeneity, Education and the Public Sphere

The major questions outlined in this book range across the general and the specific, the theoretical and the practical and pose many challenges for Indigenous and non-Indigenous scholars and practitioners of education around the world. They include the complicated and uncertain issues of globalisation, democracy, racism and whiteness and the suggested means of grappling with such problems in education including participatory narrative inquiry, two-way inquiry learning, exemplars

of Indigenous knowledge and practice and community learning circles. The overall theoretical model that has been proposed for civic action is that of democratic public sphere. While an Australian perspective has informed this discussion, it is hoped that the issues and themes so identified are universal for peace loving and democratic peoples everywhere. An epistemological emphasis has been underlined throughout to provide a practical focus for curriculum debate and change within schools. For Indigenous peoples, this approach respects Indigenous knowledge and culture and at the same time, recognises the tensions that must inevitably be confronted when culturally inclusive curriculum is supported. In fact, as Kincheloe and Steinberg (2008, p. 145) point out, 'When Western epistemologies are viewed in light of Indigenous perspectives, Western ways of seeing, Western education, cannot remain the same.' They go on to suggest:

> In the reconceptualised academic curriculum that we imagine, Indigenous/subjugated knowledge is not passed along as a new canon but becomes a living body of knowledge open to multiple interpretations. Viewed in its relationship to the traditional curriculum, subjugated knowledge is employed as a constellation of concepts that challenge the invisible cultural assumptions embedded in all aspects of schooling and knowledge production. Such subjugated knowledge contests dominant cultural views of reality as it informs individuals from the white, middle and upper-middle class mainstream that there are different ways of viewing the world.

This is precisely the approach that Indigenous and non-Indigenous teachers need to meet head on in all schools. The question of Indigeneity and subjugated knowledge and their place in society as well as in schools is a question of democracy and basic human rights for all citizens. It is a question that challenges and strengthens human understanding of who we are and where we are going. It expresses deep dissatisfaction with assumptions regarding what we call science and mathematics and the social sciences and humanities, particularly as they are conservatively framed and organised in schools. If education is seen as a democratic public sphere that assists the investigations of children and communities into significant ideas and practices, then the place of Indigeneity cannot be ignored and this dissatisfaction of personal place and moral purpose that spreads across the nation can be transformed. In this respect, Patrick Dodson, former Indigenous chair of the Council for Aboriginal Reconciliation in Australia, has called for a new and courageous 'Australian dialogue' (Rintoul, 2008, p. 2) to recognise the constitutional legitimacy of Indigenous culture and identity. This is an attempt to put the divisive and acrimonious colonial debates of the past behind us and to move to a principled consideration of a more harmonious and progressive future. A great Australian dialogue repeated world wide is required within public education as well if the outmoded, conservative and marketised approaches to schooling are to be discarded in favour of a genuine, compassionate and democratic cultural inclusiveness that embraces us all.

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