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SHIFTINGUNDERSTANDINGS OF SKILLS IN SOUTH AFRICA

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SHIFTINGOF SKILLS IN SOUTH AFRICA

OVERCOMING THE HISTORICAL IMPRINT OF A LOW SKILLS REGIME

EDITED BY SIMON MCGRATH, AZEEM BADROODIEN, ANDRE KRAAK & LORNA UNWIN



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List of acronyms

ABET	Adult Basic Education and Training
AITB	Association of Industry Training Boards
ANC	African National Congress
BDS	Business Development Services
CEO	Chief Executive Officer
Certec	Certification Council for Technikon Education
Cosatu	Congress of South African Trade Unions
COTT	Central Organisation for Technical Training
DNE	Department of National Education
DoE	Department of Education
DoL	Department of Labour
DoM	Department of Manpower
DST	Department of Science and Technology
DTI	Department of Trade and Industry
ECD	Early Childhood Development
ЕT	Education and Training
etqa	Education and Training Quality Assurance
FDI	Foreign Direct Investment
FET	Further Education and Training
GDP	Gross Domestic Product
GEAR	Growth, Employment and Redistribution
GET	General Education and Training
HET	Higher Education and Training
HRD	Human Resources Development
HRDS	Human Resource Development Strategy
HSRC	Human Sciences Research Council
ICT	Information and Communication Technology
IT	Information Technology
ITB	Industry Training Board
IQ	Intelligence Quotient
MTA	Manpower Training Act

NAD	Native Affairs Department
Naledi	National Labour and Economic Development Institute
NBI	National Business Initiative
NMC	National Manpower Commission
NQF	National Qualifications Framework
NSA	National Skills Authority
NSB	National Standards Body
NSF	National Skills Fund
NSDS	National Skills Development Strategy
NTB	National Training Board
NTS	National Training Strategy
OECD	Organisation for Economic Cooperation and Development
PRC	People's Republic of China
Prisec	Private Sector Education Council
R&D	Research and Development
SACE	South African Council for Educators
Safcert	South African Certification Council
SASCE	South African Senior Certificate Examination
SAQA	South African Qualification Authority
SARS	South African Revenue Service
SESD	Support to Education and Skills Development
SETA	Sector Education and Training Authority
SETO	Sector Education and Training Organisation
SGB	Standards Generating Body
SIC	Standard Industrial Classification
SME	Small and Micro Enterprises
SML	Small, Medium and Large (enterprises)
SMME	Small, Medium and Micro Enterprises
SOC	Standard Occupational Classification
TEC	Transitional Executive Council
TTP	The Training Partnership
UN	United Nations
UNIDO	United Nations Industrial Development Organisation
VET	Vocational Education and Training

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Introduction: The shifting understandings of skills in South Africa since industrialisation

Simon McGrath

During the Mbeki Presidency, skill has come to be a central theme of government concerns with improving social and economic performance and explaining weaknesses in implementation. Whilst not quite reaching the 'spinned' simplicity of Blair's 'education, education, education' in Britain, skill has taken a key role in official accounts about international competitiveness, economic growth and poverty reduction. The issue has been taken up in the development of the 2003 *Immigration Act*, where a new strategy for attracting such skills from outside the country has been developed, as well as forming the core of the 2001 *Human Resources Development Strategy* (DoE and DoL 2001).

This book is an attempt to examine the multiple and shifting meanings that skill has taken on in South Africa. It does so with a view primarily to how skill is being played out in contemporary policies and practices within the country, but it affirms the need to see such debates in both historical and international contexts. The authors share the policy concern with how to facilitate development and the role of skill and skills development in that focus. The authors are particularly interested in unpacking the notion of skill as ways of supporting the national project and suggesting how best to deal with the issue of skill in South Africa.

The nature of this book

A set of core questions

Although this book is an edited collection reflecting the diverse interests of a group of colleagues around a broad theme of education-work relations, it is

clear that there are a set of core questions that the volume, when taken as a whole, is addressing.

First, what role can skill play in building a better future for South Africa? It is clear that skill is a notion that has only limited meaning without reference to knowledge, values and attitudes. It is apparent that policies for skills development interact intimately with broader educational policies; active labour market policies; industrial policies; science and technology policies; and with broader macroeconomic and fiscal policies. It is evident that policies interact with people and practices, as well as being shaped by internal and external economic and ideological forces. It is obvious that all of these contexts are shaped by the multiple and complex historical legacies that are acting upon contemporary debates.

It is taken for granted that the development of skill programmes in South Africa is critical to economic and social growth. In that regard, the focus of government on skill development is not an idle political gesture. But the term 'skills development' needs to be engaged with critically and problematised in terms of its impact and consequences, especially for those denied access to skills training in the past.

Several of the chapters engage explicitly with the current international debate about 'high skill' futures, seeing in this literature an attractive model of how South Africa might hope to build a model of socially inclusive and equitable growth in the context of increasing globalisation. However, they go beyond the ways in which the state appears to have engaged with such notions by asking critical questions about the local adaptation of such a model, and by seeking to make a case for high skills to be understood as higher skills for all, not simply as a model for developing and nurturing 'knowledge workers'. This is crucial as, a number of chapters argue, South Africa has been characterised by skills polarisation and lacks sufficient development of the crucial strata of intermediate skills. Not only is this the area to which most commonplace understandings of skill refer, but it is a central element of the economic successes of Germanic Europe and East Asia.

Second, how can skill play such a positive role in South Africa's future development? The discussion of this is most clearly grounded in a concern with institutions. It is important to be clear that the institutional perspective that infuses much of the book is not that of the 'new institutional economics'

but arises out of an older and more critical political economy perspective about the nature of skills and the evolution of systems for skills development. Third, what is already being done, and will it work? Clearly, this question overlaps with the previous ones. However, it is addressed specifically in a series of chapters that examine key policies since 1994 and the evidence that is available for understanding their impact.

Fourth, why is skill understood in the way that it is now? For many of the authors in this volume, historical perspectives are essential for understanding the present and the possibilities for the future. Particularly in the earlier, historical chapters of the book, this leads to an examination of the historical evolution of commonplace, institutional and policy understandings of skill. These chapters are concerned with the ways in which economic, political and social imperatives shaped such understandings. They are concerned with the ways in which race, and to a lesser extent gender, have played crucial roles in the segmentation of both notions of skill and systems for skills development. They are aware that there has been a powerful agenda of skills for life that has often cut across the more obvious agenda of skills for work. They are interested in how skill became valued for its role in social development and social control as well as in economic development.

Analytical and conceptual foci

In a sense this book should be seen as located somewhere between a collection of essays and a tightly-focused volume arguing a coherent and consistent line. Not all of the above concerns are shared by the contributors or lead them to the same conclusions. Nonetheless, a set of questions as listed above is relatively easy to construct from what is presented here and does reflect considerable coalescence around mutual concerns.

Even in a book attempting synoptic focus, there are inevitably inclusions and exclusions. This is even more the case in a volume like this, reflecting as it does the research concerns of a group of authors with their own, as well as mutual, interests and foci. In the next few paragraphs I will rehearse briefly some of the key areas of focus that are included in this volume, but also some of the issues and vantage points that are absent.

Policy analysis plays an important part in this book. Here, there is a concern with what policies say and with what they might mean. There is a concern

with locating that meaning in economic, political and social contexts and within an understanding of the national and international ideological forces at work in the policy arena. In many of the chapters, there is a strong sense of policy as compromise, but also of the contestations that lurk behind such compromises. In all this concern with policy there is also a strong awareness that policies exist not just as pronouncements but also as practices.

A number of chapters are concerned with the notion of policy coherence. Kraak in particular argues about the advantages of 'joined up policy', suggesting that the real transformation sought by South Africans will not take place unless policies are brought together to achieve 'critical mass'. This concern with coherence is seen in a focus on policies from the Departments of Education (DoE), Labour (DoL) and Trade and Industry (DTI), as well as reference to wider policy trends.

However, the issue of policy coherence is a complex one. Writing on Latin American development experiences in the 1950s and 1960s, Hirschman argued that a country that is capable of delivering in practice on policy coherence is unlikely to have a problem with development (e.g. Hirschman 1958). Put another way, Latin American countries were unlikely to be able to use policy coherence as a development strategy precisely because they were not developed enough. This negative experience can be countered by the clear model of developmental states in East Asian development in the same period. However, it does at least raise the question of what capacities and resources are needed for policy coherence to bear fruits. The experience in South Africa of impressive policymaking followed by poor policy delivery suggests that policy coherence will not be easily attained.

This book seeks to go beyond critical readings of policy, however. The vision of the research programme to which most of the contributors belong (see below) is one in which strong analysis, informed by critical theory, needs to be married with empirical rigour. Both through the Human Sciences Research Council (HSRC)'s own research agenda, and through the work of the state (especially the DoL), a rich body of empirical data on skill in contemporary South Africa exists. This will be critically analysed in a number of chapters, especially Chapter Six.

Inevitably, some vantage points on the complex relationship between education and work are privileged over others in this book. Several chapters focus on the role of public providers of vocational education and training. These include technical colleges and schools (primarily rural ones – see Chapter Three) but there is also a lesser focus on the myriad of other providers, such as schools of industry. The book examines the racially-fragmented nature of such public provision of skill before 1994 and the ways in which the state has sought to transform provision since then. It also raises questions about the assumptions regarding forms of knowledge that lie behind such reforms and addresses the new policy imperative of skills development for enterprise development.

Another important lens is that of enterprise-based training. Chapter Two considers the racialised nature of industrial training in the period between 1970 and 1994, whilst much of the latter part of the book is concerned with attempts to reform provision in the post-apartheid era.

The book is clearly influenced, across a number of chapters, by the debates about low skill and high skill that have permeated the northern literature of skill in the last two decades. This is seen most clearly in the contribution of one of the leading British authors in this field, Ashton, in Chapter Four. However, a number of other chapters question whether skills in South Africa are adequate at the individual, enterprise and economy levels in terms of quantity, quality and distribution. Concerns are also evident that this contributes to poverty, unemployment, social inequality and lack of international competitiveness. Moreover, there is a strong undercurrent across many chapters, although most explicitly expressed by Kraak in his chapters, that market solutions are not enough.

A political economy of skill

This interest in debates about low and high skill clearly locates the concerns of the book in the broader international tradition of a political economy of skill. Indeed, the book marks an important South African contribution to this broader tradition. In particular, it emphasises three crucial elements of the political economy perspective.

First, the book highlights the importance of time to such an analysis. Both the historical and contemporary chapters show that systems are not static, whether these be skills development systems or belief systems about the nature of skill. Moreover, the linking of the historical and the contemporary

is intended to bring into clearer focus the point that new meanings, policies and practices are based firmly in readings of the old.

Second, this collection stresses the importance of place. Too much of the current policy language about skill, in South Africa and elsewhere, is acontextual and proposes universal solutions to universal problems. However, one of the strengths of a political economy approach to skill is that it stresses that skills systems arise out of the conjoining of national and international trends, influences and pressures, but always in a way that manifests specific national forms. Moreover, such national forms reflect understandings of the past; present conflict and consensus; and visions of the future. All these also shape societal understandings of skills and are reshaped by them in turn.

Third, this book emphasises the importance of institutions. In saying this, it is important to restress that this is not the institutional analysis made fashionable by the 'new institutional economics' but arises out of an older and more critical political economy tradition.

A social institutionalist perspective

This 'social institutionalist' approach emerged in the late 1980s when scholars sought to explain the high degree of divergence and variability in production systems and economic performance across societies in the advanced economies of the world, otherwise seemingly alike.¹ The key to this diversity, they argued, lay with the differing social foundations and cultural and historical factors underpinning economic development in these countries. The leading contribution to this argument came from the 'societal school'. It argued that the 'social foundations of production' played a critical role in shaping the effectiveness of the market mechanism (Maurice, Sellier & Silvestre 1986). It needed to be viewed as an additional factor of production in the widest sense – alongside land, labour and capital. The social foundations of production can best be understood as the total collection of institutions and regulations that underpin capitalist production.

The social foundations of production vary widely between national economies, thereby differentially altering the way in which the market economy functions in each case. In some countries, the presence of institutional arrangements and governmental legislation that impinge on the functioning of the market mechanism and cede to the state and organised labour a role in economic development have, in fact, acted as catalysts for growth and global competitiveness.

Brown, Green and Lauder (2001) argue that issues of skill formation and economic performance are socially constructed and experienced within social institutions such as schools, offices, or factories, and can be organised in different ways. These differences not only give rise to variations in productivity and economic performance but also lead to significantly different outcomes for individuals.

These writers stress the point that divergence in skill formation systems is derived from differing processes of socialisation and identity formation. The ways in which workers develop a work ethic, motivation, creativity and trust in the workplace are culturally as well as educationally derived. These affective elements have been accorded increasing importance under globalisation, yet the strategies adopted by countries to deal with the work socialisation challenge diverge greatly, shaped by very different cultural and historical trajectories.

The most important institutional ensemble for the social institutionalists is that which arises out of the distinctive interactions between the labour market and the education and training systems in differing national contexts. Maurice, *et al.* (1986) argue that there is a critical institutional dynamic between the form of labour process organisation and the acquisition of workbased skill, contrasting the conditions in Germany that have given rise to multi-skilling, with those in France, the UK and the USA, where skill formation is more traditionally narrow and task-specific. The senior artisan in the German system plays a distinctive role in combining managerial authority with a fundamental concern with technical expertise. This contrasts with British and American management where financial cost-effectiveness is the first priority and technical expertise is underplayed.

A second important contribution to the focus on 'labour market-education and training' institutional regimes has been the work of labour market theorists. The works of two theoretical schools – the American 'segmented labour markets' school (Edwards 1979; Edwards, Reich & Gordon 1973; Gordon, Edwards & Reich 1982; Gordon, Weiskopf & Bowles 1983) and the Cambridge 'labour market studies' group (Ryan 1981; Rubery, Tarling & Wilkinson 1987; Wilkinson 1981) – have contributed greatly to our understanding of key labour market processes such as segmentation, discrimination, inclusion and exclusion.

The significance of both labour market approaches is that they highlight the highly differentiating role the labour market plays in its mediation of the relationship between education and training institutions and the economy. A number of observations common to both schools support this claim. First, there is agreement that differentiation within the labour market arises as a result of the strategies of inclusion and exclusion pursued by state, capital and labour in their struggles to influence the conditions under which employment and skill formation take place. Second, both perspectives agree that further education and training has a highly differentiated relevance across the different labour markets, and as a consequence, differentiated mobility patterns exist in each labour market. Third, changes in the industrial and occupational structure impact in a differential manner in each of these labour markets privileging some workers whilst excluding others from employment and skill formation (Ashton, Maguire & Spilsbury 1987). Lastly, both schools are agreed that labour market differentiation acquires its most acute form when combined with other processes of social discrimination such as race and gender prejudice.

The emphasis on institutions also stresses the key role that is played by social consensus and trust. Moreover, this role is often realised through the working of social institutions that bring different stakeholders together in relationships of cooperation. Such structures and relationships have the positive effect of mediating against the short-termism inherent in competitive, market-oriented relationships, whilst still allowing competitive forces to play a crucial role in the economy.

In being influenced by these accounts it is important to stress the earlier points about time and place. Social institutionalist accounts do not only stress the importance of socio-cultural contexts; they arise from such contexts. Much of the literature is written by authors who were the inheritors of a Western European legacy of the good performance of such institutional approaches, or by British authors looking enviously across the English Channel.

In the period after the Second World War, the political *rapprochement* between France and Germany; the hegemony of Keynesian economics; and the similarities of positive elements of different forms of corporatism from the Catholic South of Europe and the Germanic countries and the social democractic traditions of Scandinavia, all acted in concert to encourage a social institutional approach to politics and business.

The evidence for the success of this approach seemed to be confirmed by the example of East Asia as the one poorer region where 'development' actually seemed to be taking place. Here it appeared that the challenges of war (for example, Japan and South Korea) and/or military threat (for example, Taiwan); building a new nation (for example, Malaysia and Singapore); and maintaining social cohesion in the face of rapid industrialisation, urbanisation and modernisation (across the region) led to a strong model of developmental states in which skills and economic development were seen as inseparable from issues of social coherence.

It is also important to note that the literature on high skills and social institutions arose in a period in which the OECD (Organisation for Economic Cooperation and Development) countries appeared to be losing many of the benefits of the 'Keynesian Golden Era' and in which the rising tide of neo-liberalism threatened the value placed on importance of society and social institutions in the policy arena. Much of the new literature was based in an attempt by elements of the political left to use the notion of post-Fordism as a tool through which to argue for the continued salience of social democratic issues (for example, Hall & Jacques 1991; Mathews 1989). As the 1990s developed, so such notions were broadened to include arguments about the ways in which globalisation and the knowledge economy could be reworked in line with social democratic ideals (King & McGrath 2003).

It is important to be clear that such accounts are part of an attempt to shape reality as well as to reflect on that reality. The stakeholderist vision of much of this literature contrasts with an apparently ever more powerful stockholderist model from the developed anglophone countries. In such cases it appears that economic success is being built on a mass neo-Fordist base as much as on post-Fordism.

A social democratic literature on skills has developed in northern Europe and Australia and continues to be dominated by authors from those places. South African academic and policy literature on skills has been influenced by this literature but several chapters highlight the complexities of adopting this approach in the very different context of South Africa.

Some thoughts on its applicability to South Africa

It is evident that these accounts have spoken powerfully to a range of intellectuals in government, the new bureaucracy, trade unions and academia. Moreover, direct readings of this literature have been augmented by the important presence of Australians in the trade union movement before 1994 and Germans in supporting the DoL since then (King & Carton 1999). The attraction is obvious, as Ashton makes clear in his chapter. Such accounts offer the possibility of simultaneous growth, competitiveness and social inclusion.

However, there are several grounds for caution about the applicability of the model. In the South African business community there has been a far stronger tendency to look to Britain and the US for models. Historically, industrial relations in South Africa have been little short of appalling. Consensus-building and a form of corporatism were given impetus by the post-1994 political settlement but have been hampered by limited stakeholder buy-in and the powerful legacy of racialised suspicion and low levels of societal trust.

South Africa's attempts to follow an institutionalist line take place at a very different point in time from either European or Asian attempts. South Africa's development path has also been very different, skewed as it has been by the dominance of the minerals-energy complex and apartheid-inspired skills polarisation.

Crucially, the capacity of the nation and the state to build and operate the necessary new institutions is uncertain. To date, much energy has been diverted into transforming the highly racialised institutions of the past.

Key absences and silences

There are also inevitable, but significant, absences and silences in this collection. It is not intended to be an encyclopaedic overview of the past, even though some historical perspectives are presented. In Chapters One and Three respectively Badroodien and Paterson present storylines over long historical periods. However, within these they bring key historical turning points into sharp relief, moving more quickly over other periods. For this reason, this introduction will provide a further look at some of the key periodisations, although again in a necessarily selective and synthetic way.

The book does not give equal weight to all supply-side institutions. Schools are only lightly present whilst universities and technikons are almost entirely absent, as is ABET (Adult Basic Education and Training). Private providers, apart from in the guise of enterprise-based training, are also absent.

More could have been made of the range of insights from the field of the sociology of work. In particular, there is not enough consideration of work places as learning places. Given the collaboration in this volume with leading authors in this field (Unwin & Ashton), it is to be hoped that this omission can be addressed in future work.

Experiences of learning, of work and of skill are shaped by a number of characteristics. Race does receive prominence, as does rurality (at least in Chapter Three). However, issues of gender can be found across a number of chapters without ever becoming a central theme. Again, it is our intention to return to this issue with greater focus in subsequent work. The relationship between age and skill is largely absent from the text. It is clear that acquisition and retention of skill vary over individuals' lives, shaped both by their changing capacities but also by external attitudes, practices and policies.

The shifting understandings of skill over time

Clearly understandings of skill have never been monolithic in South Africa. Workers, for instance, have inevitably had different views of their own skills and how to use them than employers. Moreover, as this brief section will show, employers have also had views about workers' skills and potentiality for training that, at times, have been at variance with the official position of the state. In reading this schematic description of some of the key moments in the development of understandings of skill, therefore, it is essential to guard against simplistic and uncontested notions.

Before the South African industrial revolution of the late nineteenth century, black involvement in the white economy was fairly peripheral. The most striking exception to this was amongst the coloured community of the western Cape and by the middle of that century, coloured boys and men were increasingly becoming involved in semi-skilled and craft work in Cape Town and other urban settlements. The period between the beginning of industrialisation and the First World War saw the emergence of a set of trends in South African attitudes to skill and its development that were to persist for most of the twentieth century, and which still strongly shape the state of skill in South Africa today.

First, much of the early industrialisation was based on the craft skills of white immigrants. The continuing influx of such immigrants over a century was to have a serious distorting effect on official attitudes to skills formation. Crucially, it allowed the state and employers to pay less attention to the role of indigenous skills formation than would have been necessary otherwise.

Second, although there was some development of white artisanal training in parallel to this influx of foreign skilled labour; from very early days the notion of skills development for white South Africans became entwined with social policy. From as early as the 1890s, there was a strong strand of skills training focusing on the poor, 'educationally backward' and the 'delinquent'. Skill thus became infused with notions of social control and of the value of industriousness over notions of skills being about economic development, a notion that came late to South Africa.

Third, the need to protect the place of white semi-skilled labour against the danger of undercutting by cheaper black labour combined with racialised views about aptitudes towards work and skill to constrain skills development for blacks. Although coloureds still had some access to skills development, it was widely held in the white community that Africans should be provided with the necessary skills to remain and survive in rural areas. Here industriousness was clearly linked with becoming Christian and civilised.

Fourth, if Africans were to enter the 'white economy', it was to be primarily on the mines, where the migrant labour system began that was at the heart of South Africa's approach to skills for much of the twentieth century. This system led to the perception amongst employers and government officials that African labour was homogenous and interchangeable. As a result, shorttermism and low levels of skill were placed at the heart of thinking about labour.

Fifth, the notion of skill was also clearly gendered. In spite of cultural differences in attitudes to women working, and some variations in female economic participation, there was a degree of commonality across South African males about the undesirability of women working in commerce and

industry. Even where women clearly did play an important role in the workplace, as in nursing (Marks 1994), there was a strong discourse about controlling and 'protecting' them.

There were three periods in the twentieth century where this basic model of a highly polarised, racialised and gendered system of skills came under serious threat. The first of these was during the First World War and its aftermath.

The coming of war, even though it was far away in Europe, shaped the development of skills in South Africa in particular ways. Soon the flow of skilled labour from Europe dried up and employers began to have to recruit newly urbanised and lower skilled Afrikaner workers, including large numbers of women in certain sectors, such as the garment industry (Berger 1992). The newly urbanised, lowly skilled male workers seemed to be less obviously deserving of a 'civilised labour' wage premium than previous immigrants from Europe and so there was a widespread tendency from employers to substitute them with black labour. For women, access to decent wages was an even greater struggle (Berger 1992).

In the period after the First World War, the debate about the role of black labour in the industrial economy became a more important political and economic issue. Some employers and their organisations saw advantages in changing the relative roles of white and African labour. In 1920, the National Recruiting Corporation called for the use of more 'semi-skilled' and permanent African labour on the mines in preference to the existing migrant system. Employer attempts to subvert the notion of a colour bar, under which certain occupations were reserved for whites, reached the Supreme Court with the Hildick-Smith Judgement (1923) where a mine manager was judged to have acted legally in ignoring the 1911 *Mines and Works Act's* regulations on who could be employed in certain occupations by employing an African engine driver underground (Rafel 1987).

However, militant action and political organisation by white workers soon responded to these apparent victories for capital (and, by extension, acted against the emergence of skilled Africans). The 1924 general election returned a coalition government with the mine-worker-dominated Labour Party entering government as a junior partner. Labour legislation in the 1920s saw a growth in control over skilled employment by white male labour. The 1922 *Apprenticeship Act* was added to by a raft of other legislation that firmly

reserved the notion of skill and skilled work for whites and, to a lesser extent, coloureds (McGrath 1996).

The growing white urbanisation and industrial development of the 1920s saw a significant increase in formal skills development for South African whites. The *Apprenticeship Act*, noted above, was complemented by the opening of six technical colleges, to augment the existing two (Chisholm 1992: 7).

At the same time, growing concern about the 'poor white problem' and the threat of African urbanisation led to new pressures on African education. Liberal education in (albeit only some) mission schools came under a concerted attack for its inappropriateness for the rural communities where Africans were expected to remain. Life skills increasingly became stressed over academic skills, with technical skills largely ignored (Hunt Davis 1984; McGrath 1996).

The second moment of questioning of the South African skills regime came with the Second World War. As had happened with the First World War, so war again provided a catalyst for dramatic changes in the South African labour market. This time it was the large number of white combatants leaving the labour market that was the major factor. Unlike in Europe and North America, this did not lead to a major shift towards female employment, as South Africa had a large black male population to draw upon (Berger 1992). The war years saw a major effort to develop black skills quickly and racialised definitions of skilled work and workers were seriously strained. In the mid- to late-1940s, the De Villiers and Fagan Commissions officially accepted the inevitability of African urbanisation and proletarianisation and their implications for skills development, though the government stopped far short either of political enfranchisement or effective education and training strategies.

However, the relative reformism of the 1940s was short-lived as the 1948 elections saw the victory of the National Party and the emergence of 'grand apartheid'. In the area of African education and skills development, Eiselen and Verwoerd reiterated the 1920s policy, seeking to keep Africans either rural or unskilled, or both.

In spite of significant economic growth, white vocational and technical education saw limited development in this period. The immigration of skilled whites and the growing shift of white labour into service and managerial occupations had a depressing effect on the need for new supplies of skilled white South Africans in the industrial and mining sectors. Although there were minor reforms to the apprenticeship system there was no sense of a need for urgent or radical reform. Trade testing remained optional throughout this period and most artisans qualified through serving their full term of apprenticeship rather than through demonstrating their competency (McGrath 1996).

Part of the explanation for this apparent neglect of what we would now call intermediate skills (then spoken of primarily in terms of the skills possessed by 'skilled' artisanal workers) lies in racial ideology and its construction of what constituted racially-appropriate labour. However, it is also embedded in the way that apartheid encouraged a particular version of an import substitution approach to industrial policy (Kraak 1994).

Import substitution was a common strategy for industrial development across the South during this period. However, in South Africa it became seriously warped by domestic factors. South African import substitution was overlaid by the historical development of the economy towards highly capital intensive economic activities in the 'minerals-energy complex' (Fine & Rustomjee 1996). This in turn was supported by the use of parastatal industries, as well as government service, as a means of solving the poor white problem. Whereas a number of other countries successfully developed their economies through production of low cost consumer durables that, over time, shifted their markets from local to international consumers, apartheid undermined this trajectory through encouraging an excessive focus on the small domestic white market (Gelb 1991). The result was an industrial strategy that produced an unusually bifurcated demand for labour between a high skill segment and a far larger low skill segment (Altman & Meyer 2003). As part of the failure to develop a mature, diversified and inclusive economy, craft skills were neglected.

This neglect of craft skills was reinforced by the way that industrial strategy contributed to the rapid growth of an Afrikaner middle class, which increasingly turned its back on such skills as a route to social and economic betterment.

As the 1960s continued, so concerns from employers emerged about the efficacy of the apartheid labour market settlement. There was a growing discourse of skills shortages (Education Panel 1963 and 1966) and attempts by

some employers to float the colour bar upwards became more intense (James 1992). For such employers, racialised notions of black aptitude for skilled and semi-skilled industrial work became increasingly less important than the economic case for using black labour in more skilled roles. Increasingly, work practices and official skill designations grew apart (McGrath 1996).

This growing questioning within capital of the apartheid skills model developed into the third and decisive period of contestation and reform as renewed African political militancy in both education and the labour market combined with an economic downturn in the early 1970s.

By the late 1970s, growing African resistance; a declining economy; and the costs of fighting a rearguard action against the liberation of the wider southern African region led the National Party to seek to manage a process of reforming the apartheid system, and to focus this attempt most clearly around the education, training and labour market nexus, as a key locus of power.

As Kraak shows in Chapter Two, the late 1970s and early 1980s saw a raft of new legislation that sought to transform education and training provision; urbanisation and economic policy. A unique South African version of neoliberalism emerged in which market forces were lauded but were shaped profoundly by attempts to maintain racial privilege. Black access to education, training and skilled work all grew significantly but, at the same time, were constrained by continuing inequalities in access and in resources.

The growing abdication of a dominant role in skills development by the state in this period also led to increasing concerns about the attitudes towards training of employers. Successive research reports by the HSRC and the National Training Board (NTB) painted a picture of inattention by employers to systematic skills development.

The evolution of attitudes towards skill; of labour market structures; and of the economy in just over a century of South African industrialisation had, by 1994, resulted in a seriously dysfunctional skills development system. Three principal problems faced the incoming state in this area. First, skill had been profoundly racialised and gendered; black (especially female) South Africans had been denied access to skills development or had received no certification or recognition for their real levels of skills and knowledge learned on the job; and provider institutions and delivery systems were fragmented and dysfunctional. Second, the absence of consensus and co-operation around skills development was not simply about issues of race. The state had abandoned much of its responsibility for building skills and business seemed incapable of developing a strategic position. The possibility for tripartitism was almost non-existent in one of the most conflictual industrial relations systems in the world. Third, South Africa's apartheid-driven industrial development path had led to an intense polarisation of skill between high skill and low skill elements; with a serious underdevelopment of the intermediate skill segment, which is seen as essential to successful industrialisation and competitiveness internationally.

The book's structure

The first three chapters of the book serve to make the point that historical depth is essential to understanding contemporary issues. In them, Badroodien, Kraak and Paterson look at different aspects and periodisations of the apartheid legacy. In Chapter One, Badroodien examines trends in vocational education and training before 1970. He shows in particular the ways in which race and concerns about delinquency combined to provide a logic of social control, more than economic performance, to skills development for blacks. In his analysis, the notion of an institution takes on a very different sense from the accounts above, owing far more to Foucault's notions of their disciplinary function. Kraak moves the focus forward to the 1970s and the ways in which demand and supply for skilled labour were shaped by a range of diverse factors. He argues that economic crisis and the fears of the white establishment about the implications of the 1973 Durban strikes and the 1976 Soweto Uprising led to changes in the education and training system that were intended both to be profound and, perversely, leave the status quo of white domination in place. He shows crucially how the intended solutions left skills development in a state of crisis and fragmentation by 1994. Paterson takes us back in time to explore the notions of skills embedded in rural education for blacks in the old Cape Province. Although much of his focus is on the early years of South African industrialisation, he valuably zooms his story forward to consider the legacy of this for the education/rural-development interface today.

Our focus then shifts to the last decade. Before moving into a detailed analysis of policies and delivery in the post-1994 period, in Chapter Four Ashton

provides an external perspective on the debates around skill that have come to shape South African discourses in this period. This provides a crucial set of conceptual lenses through which to read much of what follows. Kraak then outlines what has emerged in the *National Skills Development Strategy* (NSDS) to replace the failing system he describes in Chapter Two. This illustrates how much of the language of social institutionalism and high skill has been adapted and adopted by the DoL. Badroodien provides an analysis of progress towards implementation of key elements of this new strategy through a metaanalysis of recent survey findings and of the national reports of the DoL on progress against the NSDS targets.

McGrath and Gamble move the focus over to the education sector. In Chapter Seven, McGrath examines how policy for the newly-named Further Education and Training Colleges (FETCs) is intended to address the problematic legacy outlined by Kraak and Badroodien in their historical chapters. He shows that this focus on institutional transformation has been the primary element of the DoE's strategy to date rather than a concern with issues of labour market insertion and skills development, and points to the serious problems of incoherence that result. Gamble provides a very different perspective, asking whether the new policy creating FETCs is sufficiently grounded in an understanding of the specific forms of knowledge and skill that relate to different occupations. Without such an understanding, she argues, new programmes are likely to fail to prepare individuals adequately for work.

McGrath then turns the focus back to policy, examining whether there is evidence of policy coherence around the increasingly important issue of skills development for enterprise development. His analysis raises questions about the extent to which policy incoherence is a block to delivery and the likelihood of solving the incoherence issue. Kraak returns to the NSDS and its implementation to date to ask what this tells us of the prospects of a social institutionalist approach in South Africa. He makes important suggestions for how the OECD accounts of high skill need to be reworked in a South African context. Finally, Unwin reflects on the South African experience of trying to address skills development in the last decade from the perspective of international experiences. She suggests ways in which these experiences could inform South Africa and how the high skills account needs to be adapted as a result of the South African experience.

Positioning the book

This book is written by members of the Human Resources Development (HRD) research programme of the HSRC, along with two collaborators from the Centre for Labour Market Studies, University of Leicester – a partner institution in a number of projects. The HRD programme has a broad interest in areas of post-compulsory education and training; labour market transitions; and skills formation in the work place. However, several of the chapters also draw heavily from the completed doctoral research of this team.

At a time in South Africa when a 'new' HSRC seeks to critically engage with the education and training project of the national government, it is appropriate to note the previous involvement of the organisation in the field. The HSRC has been involved in a fundamental way in key reform moments in the education and training policy agenda of this country. Both the De Lange Commission of 1980 (HSRC 1981) and the NTB/HSRC reports of the 1980s and early 1990s (NTB/HSRC 1984, 1989 and 1991) were key elements of the reforming apartheid agenda to respond to the inherent flaws in the education and training domain. However, within the broader and contested framework of reformed apartheid, they also served to develop new ways that reinforced the existing inequality in South Africa. In setting a new research agenda, the HSRC needs to be mindful of its past role both in these legitimations of bad policy and in its tendency towards a spurious apoliticism. The HSRC continues to receive a parliamentary grant, although it now comprises less than half of the total budget, and has a duty to the state. However, this duty is increasingly seen as being one of critical engagement. From this standpoint, the organisation supports overall national development priorities but seeks to examine critically whether policies and programmes designed to address these priorities are well-formulated and well-functioning. It is this spirit of critical and rigourous engagement that informs this volume.

Notes

1 This section draws on the work of Andre Kraak, especially Kraak (1994).

Technical and vocational education provision in South Africa from1920 to 1970

Azeem Badroodien

Introduction

The term 'technical and vocational education' has come to encompass a wide variety of practices in South Africa, its content and meaning having shifted and changed many times. Certainly, the historical context of technical and vocational education provision has shaped the nature and extent of such provision for different social classes and social groups in this country.

This chapter makes four key contributions. It notes that:

- Technical and vocational education provision before 1910 was regarded as suitable only for non-whites.
- After 1910 the Union Government reversed this policy emphasis and sought to limit the provision of technical and vocational education to predominantly white recipients.
- The categories of technical and vocational education came to be distinguished largely on class and race grounds after 1910. Technical education provision was clearly distinguished in policy from industrial/vocational education, the latter being more focused on social welfare concerns.
- With regard to vocational education provision there was a greater emphasis, historically, on *rehabilitative* and *ameliorative* functions, than on a *training* function.

Given the focus of the book on skills development in South Africa, the chapter explores the debates that informed the provision of technical and vocational education from the 1920s, when institutional structures to support such a

system were first put into place; and outlines the different social and institutional contexts that shaped such provision until 1970. It also examines the ways in which the systems of technical and vocational education provision developed in South Africa in that period and how the 'skills' levels of respective learners were understood.

The chapter has two main standpoints. It firstly emphasises that the history of vocational education in this country has always been preoccupied with issues related to indigence, social and educational inferiority, and mental backwardness. It explains this preoccupation through the complex ways in which indigence and inferiority issues meshed with social debates about the 'useful citizen', social order, and notions of the (presumed) social and work skills that workers (particularly males) needed in urban areas. These debates on the intermeshing of class, race and quality of provision were crucial in the formulation of technical and vocational education programmes in South Africa in the period 1920 to 1970.

In that respect, vocational education provision was regarded as critical for the 'salvation' of working class, poor and indigent children in urban areas, both in helping regulate and socialise the growing numbers of submerged 'poor white', African and coloured urban workers and inhabitants in the cities, and to ensure that impoverished learners in rural areas developed the skills and knowledge to prosper there – and therefore, not migrate to the cities.

Importantly, while the chapter will often allude to Africans, coloureds, and Indians as separate groups in the period 1920 to 1970, until the 1960s state policy did not differentiate much between the respective needs of the noted groups. In that regard, the chapter does not employ inverted commas to highlight race or derogatory terms such as native (notwithstanding contested and multi-dimensional meanings associated with them), but does so with terms like 'poor white', 'skollies', 'tsotsis' and so on, to indicate the availability of secondary literature that explains and indicates different understanding of the terms (for example, Malherbe 1932; Morrell 1991).

The second standpoint focuses on understandings of 'skill' associated with technical and vocational education provision in the period before 1970. It is argued that skill was loosely understood to refer predominantly to the different kinds of discipline and work preparedness that made people both good workers and good citizens. It was also understood to mean 'teaching

people the habits and social requirements of work and work ethic' which was deemed critical for the reconstruction of the South African economy at that time (Union of South Africa 1929: 13).

In that regard, the Union Government after 1920 believed that a balance between the economic (work) and social obligations (citizenship) of learners could only be achieved by paying particular attention to the early age that children were leaving school, the lack of opportunities for learning an employable skill and thereby securing 'gainful' employment, and the general lack of social welfare, educational and recreational facilities that provided for a 'stable' working and social environment.

Such an approach to 'skills development' was explored in different ways for white, coloured, Indian and African learners. Notwithstanding the belief that work training was essential to 'enable all the urban unskilled and unemployed to enter the ranks of the workers and be self-supporting' (Union of South Africa 1948a: 253), technical and vocational education provision was shaped according to the prevailing system of apprenticeship in South Africa at the time and the kinds of jobs available for the various learners in a racially constituted labour market.

The chapter reminds us that after 1910 the state in South Africa provided technical and vocational education solely for white learners, and that education was compulsory only for white learners at that time (and until the 1960s). The provision of vocational and technical education to white learners had come about in response to the large numbers of the white population that had been propelled off the land by changes in agrarian relations in the 1890s and the social and educational implications thereof. Chisholm (1989: 65) has noted that these shifts also occurred in response to the growing commercialisation of agriculture stimulated by the proclamation of the goldfields, and the number of rural rinderpest and drought disasters of that period.

Juxtaposed with the above observations, it is notable that even in the period that it was solely provided for white learners, technical education continued to be stigmatised as 'kaffir work' and looked upon by white workers as degrading and unacceptable.

The chapter explores the main factors or themes that informed the formulation of technical and vocational education from the 1920s. It

examines the separate origins and development of technical and vocational education provision in the period 1920 to 1970 as a way of unpacking the complex and intermeshing institutional contexts that emerged in that period.

The shaping of technical and vocational education provision from the 1920s

Three key factors informed the formulation of technical and vocational education provision after 1920, namely:

- The predominant focus of technical and vocational education provision before 1900 on the African and coloured populations (as part of colonial ideology);
- The particular needs of the white (especially rural) population; and
- The impact of the emerging social democratic tradition of the 1920s.

The colonial provision of vocational education

E G Malherbe has noted that when vocational and industrial training was first introduced at the Cape Colony it was provided for coloureds and not for whites.

For almost 50 years before 1900, bricklaying, plastering, painting, decorating, engine cleaning, shoemaking, tailoring, carpentry and masonry were in fact widely considered only fit for coloured men and overseas workers. (Malherbe 1977: 163)

In this respect, the origins of vocational education can be traced back to (separate) mission schools for 'native' and coloured children. In 1855, the Governor of the Cape Colony, Sir George Grey, instituted a scheme of industrial² education for 'native' children, and in 1861 industrial departments were attached to certain coloured mission schools at the Cape.

Industrial or vocational education thus occupied a very 'special place in colonial ideology that was directly related to efforts aimed at "civilising" African (and coloured people) in the latter half of the nineteenth century' (Kallaway 1992: 17). In fact, for a long time before the turn of the twentieth century the industrial education movement was firmly focused on providing

'different' or 'adapted special education' for 'primitive peoples' in a rural context (Kallaway 1992: 18).

The particular needs of the white population after 1900

From the 1890s the provision of technical and industrial education in South Africa became more intimately linked to an argument in favour of schooling that was directly relevant to the environment and life chances of white, especially rural, children (Kallaway 1992: 28). An article in the *Cape Argus* in 1892 noted that:

What to do with our white boys promises to be as troublesome a question in this new country as in the outworn communities of the old world. It is not that the commercial and professional classes in towns find it difficult to place their sons satisfactorily in the way of attaining a position equal to that of their fathers. The difficulty extends to the sons of working men and what is more serious for the future of the country, to the sons of the farming community. (cited in Rickett 1971: 48)

An Education Commission appointed by the Cape Government in 1891 had noted that:

The schoolwork must be made more variously fitted for the scholar. There must be thousands of white children even in the towns for whom booklore has not a complete charm. Yet these children need the discipline and training to be had only in a school. In many of these cases, blackboard drawing, woodcarving, cardboard modelling and some other handicrafts and modes are particularly applicable. (cited in Rickett 1971: 51)

Industrial education after the 1890s thus came to be directly associated with the social rehabilitation of the poor white youth of the country and the depressed economic conditions and poverty of large sections of the white population. It was argued that measures had to be developed that responded to the large numbers of poverty-stricken white youths that left school at the end of primary school and were ill equipped for life.

Industrial education provision after the 1890s was also part of the push for

greater differentiation within the emerging education system for white children. This shift in focus in industrial education policy was a fundamental aspect of colonial state strategy at the turn of the century. Policy increasingly sought to respond to the social and political context of the emerging white education system (Kallaway 1992). In this respect, alongside the gradual shift in educational focus from cultural adaptation to social and economic adaptation from the 1920s, the educational system for white children was increasingly challenged to address two issues:

- The diversified educational needs of pupils due to bigger numbers, longer school life and a wider range of abilities being drawn into the school net; and
- Changes in the economic and social needs of the country due to increased industrialisation. (Chisholm 1989: 314; Malherbe 1977: 155)

Indeed, the Union Government set aside considerable funds in this period to fund education programmes for white children. Malherbe (1977: 156) notes that the Union Government spent 20 per cent of national state services spending (excluding railways) on education in the period between 1910 and 1930. State expenditure on education for white children grew from about R3,5 million in 1910 to R18 million over this period.

The purpose for this increased funding was two-fold. On the one hand, state funding sought to ensure that by 1930 'most white children of school-going age had been drawn into the school net by gradually extending the limits of free and compulsory education' (Malherbe 1977: 156). On the other hand, increased state funding was an attempt to directly respond to the social problems associated with increased white urbanisation in that period. It is notable that the white population of urban areas increased from about 50 per cent to roughly 66 per cent in the period between 1910 and 1930 (Malherbe 1977: 156).

Having brought increased numbers of white children into the school arena the education authorities were then faced with the problem of the suitability of the education provided at the different levels. 'People began to ask why so many of the adolescents who left school were unemployed, and why so many of those who got work did not seem to give satisfaction' (Malherbe 1977: 156). These issues were of critical concern given the need for a stable white working class in urban areas in that period. It was around this time that the 'poor white' question loomed very large in the white public mind in the context of the aftermath of the Anglo-Boer War, the large number of natural disasters and the Depression of the late 1920s (Morrell 1991: introduction). The 'white nation' was seen to be in trouble economically in the 1920s and it was believed that 'effective remedies' were needed to address social and economic needs. In 1932 it was estimated that there were as many as 300 000 'poor whites' out of a total white population of 1.8 million (16.6 per cent) in South Africa, a large proportion of whom were the beneficiaries of charity and relief.

In a period of rapid economic transition in rural areas, characterised by a move to modern forms of industrialised and commercialised agriculture, farmers and their families had been faced with severe competition for markets in urban and industrial centres. Many failed to make the transition and moved to the cities in search of employment.

Urbanisation of this nature brought with it new social problems. With the very limited employment opportunities for rural emigrants in the cities, 'poor whites' found themselves in open competition with Africans, coloureds and Indians for unskilled jobs. This had particular political ramifications, especially since rural white emigrants believed that doing unskilled work would seemingly reduce them to the 'level' of these groups. This dilemma undoubtedly contributed to the rise in support for Afrikaner Nationalism in that period. Even though rural whites came to the cities unskilled, they quickly found very useful allies in the cities in the form of Afrikaner nationalist politicians who were keen to 'save them from their plight' (Malherbe 1977; Morrell 1991).

In many European countries during the nineteenth century, large industries and the military were used quite effectively to absorb those 'alienated' from the land during the transition to industrialisation. However, in the period after 1900, there were no employers in South Africa, other than the railways and the mines, that could absorb the large numbers of unskilled, previously rural people. The Union Government in the period before 1930 sought to directly address the needs of the 'displaced' white rural population by providing them with particular work skills, and access to employment, through vocational education. In reformulating the vocational and technical education system, the government intended also to respond to the particular kinds of skills for further growth required by expanding secondary industries.
The Union Government adopted quite different programmes in developing technical and vocational education provision in rural areas. The Carnegie Commission of 1932 had found that on leaving school nearly 47 per cent of all white rural boys went in for farming, and that up to 58 per cent of them had not even completed Standard 6 at that stage (Malherbe 1932: 111). The Commission observed that if the parents of boys with low levels of schooling were themselves poor, these boys would probably become 'poor whites' at times of economic strife. To remedy the situation in the rural areas, the Union Government intervened by providing national agricultural schools from the 1920s under the Union Education Department (Rickett 1971: 259–296). The Union Government felt that the provinces could not afford the costs of providing practical training facilities and set aside funds for the establishment of national state agricultural schools for white rural children.

However, this attempt was largely unsuccessful to the extent that by 1937 state agricultural schools had less than 200 pupils. Malherbe (1977: 161) has noted that as farming became more and more mechanised from the 1920s the percentage of economically-active whites engaged in farming decreased from 30 per cent in 1926, to 15 per cent in 1950, to 10 per cent in 1960, to 7 per cent in 1970. Also, many white children seeking access to vocational education were not keen to attend the agricultural schools because of the general association of Union Education Department institutions with destitution and deficiency by that time.

Finally, the focus on the technical and vocational education needs of white learners in the period after 1920 was also intimately informed by the understanding that:

- 'Poor whites' had particular social and educational problems and that 'a large percentage of the poor white children in schools were endowed with intelligence so limited that they cannot be expected to achieve a high standard of scholastic attainment (Union of South Africa 1939: 11).
- The presence of a large coloured and African population in urban areas added to the difficulty of providing white children of less than average ability with suitable education that would lead to suitable employment (Union of South Africa 1939: 11). It is notable that with the growth of industries and the increasing reservation of semi-skilled jobs and trades for whites from the 1930s, the previous trend to reserve unskilled work for coloureds and Africans was slowly reversed.

The social democratic tradition

After 1920 the growth of a social democratic tradition that emphasised the contribution of vocational education in 'preparing citizens to take their rightful place in society' also significantly shaped the reformulation of industrial and technical education provision.

A Deweyian approach to education emerged in this period. A key aspect of that philosophy was the assumption that governments had duties to all citizens and that it was:

The state's business to not only ensure that there were adequate educational facilities for all children, but that the necessary conditions for the exercise of those individual rights to equality of opportunity in education be enshrined in social policy and social services. (Kallaway 1996: 4)

Technical and vocational education provision after 1920 was shaped by understandings of 'citizenship' as much as it was linked to the economic needs of the country. That education policy-makers after 1930 were generally unsuccessful in translating this nuance between the worker and the citizen into policy in the period thereafter was informed by the complex ways in which institutional provision had developed by that time. This is explored below. It is argued that a closer consideration of the development of technical and industrial education provision in South Africa will explain many of the key dilemmas associated with (and obstacles to) such provision after 1930.

The institutional development of technical and vocational education in South Africa

The histories of vocational and technical education provision in South Africa have different origins, and their development was informed by quite different contexts. Malherbe has noted that:

The genesis of industrial education is not identical with that of technical education. Technical education arose out of the needs of the growing industries, while industrial education developed out of the desire to help the poor whites. (Malherbe 1932: 55) However, the two forms of provision converged substantially by the 1940s. Thus, while it is initially necessary to deal separately with the way in which the two forms of provision evolved in South Africa, both provisions are addressed together for the period after 1940.

Industrial education provision

Industrial education evolved as a specific measure to combat 'poor whiteism' from the 1890s and as the means to train potential 'poor white' boys from the rural areas in industrial occupations such as shoemaking, carpentry, smithy work and so on, and to train 'poor white' girls in domestically-related occupations. In this period, the Dutch Reformed Church was instrumental in the establishment of industrial schools, in an attempt to alleviate the destitution and poverty of poor white children that accompanied war, epidemic and economic depression (Malherbe 1977: 164).

Given the emerging edifice of 'white education' in the early part of the century and the complex ways in which the white education system evolved in the period after 1910, it is notable that the development of the industrial education system was directly informed by:

- The construction of 'native education' policy from the 1920s (see Chapter Three); and
- The ongoing conflict between the provinces and the central government vis-à-vis the nature and control of vocational and technical education in the Union.

Importantly, until 1925 industrial education provision was manifested differently at the private, provincial and central levels.

Rickett (1971) and Malherbe (1977) have both emphasised the pioneering role of the Churches and the provinces with regard to industrial education at the turn of the century. Rickett (1971: 9–11) in particular provides a rich account of the diverse types of industrial schools that evolved at the private, provincial and rural levels in the Cape Colony at the turn of the century. He observes that industrial schools (in the Cape Colony) in the early part of the century were *essentially* schools for teaching trades to the children of white parents in poor circumstances.

Although all such institutions catered to a poor white clientele, there were considerable differences in the quality and depth of the technical training provided. By no means all institutions prepared their students for skilled work.

After 1917, 'industrial schools', officially, were those institutions under the Union Education Department (central government) that provided for white children 'in need of care' as determined by the *Children's Protection Act* of 1913. Such institutions had significant links to the penal system. In reality however, most of the schools under the provincial education departments that focused on trade training were also referred to as industrial schools until the 1940s.² In fact, the only discernible distinction between the central government industrial school and the provincial industrial school until the 1940s was that in the former category children were committed to the educational institution via the legal or penal system (that is, children in need of care).

Equally, provincial industrial schools were themselves not a homogenous group of institutions. There were provincial industrial schools that focused on trade training issues, whilst others responded to issues of indigence and social intervention. From the early 1900s industrial education in the form of trade training and apprenticeships had been actively advocated as the recipe to address white unemployment. The *Report of the Transvaal Indigency Commission of 1906–8* (and later also the *Report of Industrial Education Committee of 1916* and the *Report of the Relief and Grants-in-Aid Commission* of 1917) had stressed the necessity to provide vocational education alongside the institution of a Juvenile Labour Exchange and provision of apprentice-ships for boys to the 'skilled trades' (Chisholm 1989: 253).

In this regard, the National Advisory Board for Technical Education had observed in 1913 that many industrial schools provided trade training, which was a rather different service to those industrial schools that focused on the indigence of learners. The Board asserted that due to the poor state of primary education for white children, and 'bearing in mind the indigent condition of a considerable section of the European population', it was necessary not to pursue an overall high standard of technical instruction at the various kinds of provincial industrial schools. The Board asserted that as the standard of white education improved, industrial schools that focused on trade training would eventually replace those that responded to learner indigence (Union of South Africa 1913). It was envisaged that all industrial schools would come to serve students who had completed their primary school course and who were seeking apprenticeship in trade theory and training (Rickett 1971: 82).

A considerable degree of experimentation with regard to the development of industrial education had therefore already taken place in the different provinces by 1925 when the administration and provision of *all* industrial and vocational education facilities became the sole responsibility of the Union Education Department. This transfer of power (until 1967 when responsibility was again returned to the provinces) from the provinces to the central Government in 1925 represented the single most important development in the history of industrial and technical education in South Africa.

Crucially, by 1925 most of the 'dangerous' 'poor white' youth had been diverted to government industrial schools under the *Children's Protection Act* of 1913. In that respect, all white children in technical colleges, provincial industrial schools and in the developing system of commercial, agricultural and housecraft schools in 1925 were regarded as 'deserving recipients' of government educational intervention.

Also, until 1925 each province in South Africa had been free to develop its own systems of industrial education. In this respect, the systems of industrial education within individual provinces were largely uncoordinated. The transfer of all industrial education facilities to the Union Education Department in 1925 thus provided the first real opportunity to develop a national system of industrial schools for white children.

From 1925 nineteen state institutions and twenty-three state-aided industrial institutions were transferred to Union control (Union of South Africa 1926: 84). Of these, many small uneconomic provincial industrial schools were shut down and their pupils transferred to other institutions. These included many of the farm industrial schools and single-teacher industrial departments attached to Indigent Boarding House schools. Several of the other industrial schools were re-organised and converted into housecraft, commercial and agricultural high schools in rural areas, while some state-aided industrial schools remained subsidised institutions till the 1970s (Malherbe 1977: 178; Rickett 1971: 90–91).

Notably, white student enrolment at vocational schools rose from 2 211 to 12 423 between 1926 and 1947 and to 32 955 by 1967 (Malherbe 1977: 712). Even so, only about 53 per cent of the white boys and girls that 'graduated' from vocational schools found employment in the jobs they were trained for. This was because employers placed little value on the training provided and preferred to employ cheaper black labour.

For that reason, the Union Education Department was keen after 1925 to develop an overall system of technical and vocational education that would provide learners with equivalent qualifications. This led to a single departmental Trade School Certificate for all provincial and government industrial schools. The status of industrial schools generally improved from the 1930s, even though it was often assumed firstly that children in government industrial schools that focused on trade training, and secondly that instruction at government industrial schools focused predominantly on social order and welfare needs.

From the 1930s, the Union Education Department made concerted efforts to change the narrow conception of vocational education at the different points of provision. The department was particularly concerned about the relationship between vocational education, work and society, as well as about the effectiveness of the social reproduction of work discipline within the system of industrial and technical training. This concern was further emphasised by the boom in secondary industry from the middle to late 1930s, which led to more attempts by the educational authorities to re-organise the system of vocational and technical education in South Africa.

In fact, the unprecedented industrial expansion that accompanied the start of the Second World War in 1939 drew particular attention to the unsatisfactory state of technical and vocational education in South Africa. By that time, despite attempts to address the growing gulf between the provision of technical, vocational and industrial education and the availability of trained technical workers, the Union Education Department had been unable to change learner and employer perceptions of the merits of industrial and vocational provision and so increase learner participation.

But the Union Education department, through differentiating the system of vocational education provision, did have significant success in raising the level

of scholastic work in industrial schools by the 1940s and in changing the white learner population at such institutions from children with indigent needs to those mostly interested in vocational subjects. In this respect, the De Villiers Commission (Union of South Africa 1949: 13) observed in 1948 that much success was gained in 'raising the level of scholastic work done in these institutions' as well as to 'generally "improve" the type of girl and boy admitted to them'.

This shift in the level of learner was achieved at that time through increased differentiation and 'intelligence quotient' (IQ) testing amongst learners (Chisholm 1989: 255). By the mid-1930s, many institutions were specially set aside for 'mentally challenged' learners (Fick 1936: 24–39). The ability to scientifically grade white learners and so place them in particular 'educationally-relevant institutions' after 1930, provided policy-makers with the opportunity to use the government industrial school system in more differentiated ways than was previously possible. This was in stark contrast to the original impetus for the establishment of government industrial schools, namely to service poor white youths, those 'in need of care', and those who were deemed to be mentally and socially 'defective'.

By 1947 all government industrial schools for white children were graded according to the characteristics or mental capacities of their respective pupils. Training that was deemed suitable to the respective aptitudes and the interests of learners were generally based on 'tested' levels of intelligence (Union of South Africa 1948a: 17).

Chisholm (1989: 255) has noted that this differentiation within the white education system occurred alongside a significant shift towards white learner *certification* in industrial education institutions in the early 1940s, to improve their employability. Given the widening racial division of labour in the broader society, industrial education facilities focused sharply on ways in which to provide white learners with 'skills' to compete in a labour market that was becoming increasingly differentiated. In this respect, it is notable that in the period before the 1940s the *Apprenticeship Act* of 1922 protected white learners from industrial education facilities equipped only for unskilled or low skilled work, and in this way heavily disadvantaged all other 'competitors' in the labour market. From the 1940s however, many white learners in such institutions had 'acquired' particular skill levels and certification that, along

with privileged access to apprenticeship, served to distinguish them from African, coloured and Indian learners in the labour market.

Yet learners that emerged from industrial institutions in the period until 1955 achieved mixed and limited success in securing employment in the particular trades in which they specialised (Union of South Africa 1954). Chisholm (1989: 270) asserts that this was because there remained little direct connection 'between the state's interest in these schools and what they actually produced'. She reminds us, however, that industrial institutions continued to fulfil the key function set out in government policy, namely of imbuing learners with values suitable for disciplined labour, and patriotic, militarist dispositions.

Technical education provision

As previously noted, the history of industrial education in South Africa had significantly different origins to that of technical education. Technical education institutions evolved mainly in response to the growing needs of the railways, mining and industries for trained and skilled artisans. It was therefore more localised. Courses offered at technical education institutions developed in response to the local, industrial and commercial needs of particular areas.

However, with the *Higher Education Act* of 1923 all institutions for technical training were brought under the control of the Union Education Department. Thereafter, the courses provided at technical education institutions focused on complementing the general functions of normal provincial schools, namely to provide 'training for work' (Union of South Africa 1929: 5).

In that respect, from 1925 technical colleges started establishing technical high schools that offered pre-apprenticeship training, with the entrance qualification being a pass in Standard 6. This course initially lasted two years and included a mixture of 'academic' and 'vocational' subjects (humanities, maths, science, art, mechanical drawing and manual training in woodwork). With time, other trade training courses in metalwork, electrical work, fitting and turning were added to the syllabus. By 1936 the courses pursued at technical high schools were extended to three years and were very similar to that followed at provincial industrial or 'trade' schools (though it was claimed to be of a higher quality at technical high schools).

Significantly, the technical colleges and their technical high schools were largely situated in the large urban centres and catered exclusively for the 'town' boy and girl. Born out of the needs associated with increased industrialisation and commercialisation, these technical institutions became very popular among white working urban-dwellers who wanted either to further their 'skills' or do their apprenticeships part time (Malherbe 1977: 169). Malherbe (1977: 173) describes the part-time facilities of technical colleges as follows:

Technical colleges provide further education for the boy or girl who has to leave school early to go to employment and needs part-time education to supplement curtailed full-time education; further education for the boy or girl whose special interests and abilities justify secondary education with a vocational bias; further education for the adult who finds he is inadequately prepared for his post or for promotion; further education for the matriculant who wishes to become a pharmacist, commercial artist (etc.).

Governed by the requirements of the *Apprenticeship Act* of 1922 (which stipulated compulsory attendance at technical classes) and informed at the local level about the needs of particular environments, these colleges stood at the forefront of provision for the technical educational needs of town and feepaying students.

Paradoxically, technical colleges were also the only institutions in the period under review that were providing *state* technical instruction to African, Indian and coloured children. Provision for these groups was fairly 'mixed' in urban areas in that period.³ The De Villiers Commission of 1948 observed that technical colleges like the Cape Town College (at a branch in Roeland Street) had provided facilities for up to 1 000 coloured learners by 1948 and that they were mainly apprentices in the furniture and building trades. The Commission noted that coloured workers had contributed 'considerably to the building operations of the towns in that they lived by that time (Union of South Africa 1949: 252).⁴

While the Union Education Department had committed itself to promoting vocational education for young white adolescents in the inter-war period, the outbreak of the Second World War forced the department to re-evaluate its emphasis on providing state technical and vocational education only for white children. The war certainly brought under sharp focus previous policies that

provided predominantly white learners with state industrial and technical education.

Industrial and technical training needs during the Second World War

The outbreak of the Second World War alarmingly cut South Africa off from overseas supplies and access to skilled labour. Foreign supplies were completely cut off and South Africa was forced to turn to its own resources. As the war was expected to last for many years, it was increasingly felt that the South African economy needed to focus on becoming independent. Callinicos has argued that:

At this stage of its development, South Africa was well placed for enormous growth. ISCOR was already producing the iron and steel needed to make machinery; coal and electric power were available and cheap; and there was enough capital from the gold boom to start all these new projects. In the six years between 1939 and 1945 manufacturing nearly doubled its output (so that) by 1943 it was producing more of the country's wealth than gold mining. (Callinicos 1994: 220)

Furthermore, Terreblanche and Nattrass have argued that the Second World War effectively made the colour bar economically redundant (Terreblanche & Nattrass 1994: 195). The loss of most of the available skilled labour to the army, coupled with the 'more liberal' policy thrusts of the United Party with regard to labour regulations in this period, resulted in the government increasingly authorising Africans, coloureds and Indians to work in skilled positions in industry.

Beinart notes that of the 125 000 people absorbed into manufacturing and construction employment during the Second World War, only 15 per cent were white. State policy-makers were aware of the significant increase in black urban workers in secondary industries in this period, as well as of the overtaking of mining by manufacturing both in its share of the country's GDP and in employment. After the war, the concerns of manufacturers about new markets and a more settled labour force then became a greater priority of the United Party-run state (Beinart 1994: 124).

The war effort and the move to apartheid

In the period 1937 to 1948, policies of segregation developed alongside an unprecedented growth in industry and the rapid urbanisation that accompanied growth. Driven by the war effort, the Union Government struggled to reconcile the different pressures and contradictions inherent in its 'liberalisation' policy. As a result, issues linked to industrialisation, urbanisation and the protection of white interests complexly informed the ways in which the white working class engaged with government. Duncan (1995: 13) has argued that in the 1948 election the United Party lost a fair amount of support in peri-urban areas where the threat of the black working class labour was perceived to be especially acute. Whites coming back from the war had found the jobs that had previously been their 'domain' generally occupied by Africans, Indians and coloureds.

Beinart has similarly noted that while many whites emerged from the 'war for democracy' believing that African, coloured and Indian aspirations had to be taken into account, 'most responded to the wartime challenges posed by Africans, coloureds and Indians in the labour market by moving ideologically in the other direction' (Beinart 1994: 126). Policies initiated immediately after the Second World War, therefore, were constituted and organised within a framework of ambiguity; they sought to respond not only to the requirements of increased industrialisation and urbanisation, but also to rising disaffection among the white working class and Afrikaner Nationalists.

The key new institution involved in the war-time growth of black skills was the Central Organisation for Technical Training (COTT). This was established in 1940, with centres all over the country. The centres (operational by June 1940) were attached to a technical college and provided facilities that sought to train almost 5 000 students as fitters, machine tool operators, welders, blacksmiths, tool repairers, electricians and sheet metal workers. Men between the ages of 18 and 40 were admitted to courses that generally lasted 24 weeks (Union of South Africa 1948b: 4). By the end of 1943 nearly 22 000 black workers had been trained at the various COTT centres. However, in June 1945, the Union Education Department took over all COTT centres and focused on training mostly white ex-volunteers, often in the same trades as previous black trainees.

The Report of the Commission on Technical and Vocational Education of 1948

The De Villiers Commission of 1948 was constituted to devise a broad framework for a reconstructed system of education and training and indicated the general principles that the Union Government believed ought to govern future growth in South Africa (Union of South Africa 1949: 1).

Specifically, the Commission focused on the education and training of the adolescent and how this arena needed to be shaped in order to have a positive influence on 'the real demands of the nation'. Vocational education was defined as 'instruction and training in commerce, agriculture, housecraft or any trade or industry' and included vocational inputs into general primary and secondary education.

With regard to the African, coloured and Indian population, the Commission asserted that education policy-makers needed to concede the limits of providing technical and industrial education for such youth, given that education was not yet compulsory for them. It was argued at the time that many such children had also not reached the requisite scholastic level to qualify for entry to trade training examinations and that the only state institutions that provided technical education training for African, coloured and Indian youths at that time were linked to penal and social agendas, namely school of industries, reformatories, punishment hostels and army training centres (Union of South Africa 1949: 256).

The Commission argued that the provision of technical and industrial training for black children needed to focus very simply on teaching them how to work'. Such a focus, the Commission argued, would also address issues of poverty and 'the overall aimlessness of children of the poor and indigent African, coloured and Indian groups that had migrated to the cities' (Union of South Africa 1949: 257).

This approach to trade training for black learners remained dominant till the mid-1970s, when 'apartheid policy in relation to technical education for black people slowly began to be reversed' (Chisholm 1992: 11).

African, coloured and Indian learners and technical training after the Second World War

Malherbe (1977: 191) has asserted that there were two main reasons why the provision of industrial and technical education was not extended to black children as a means to advance the industrial development of the country during the inter-war years. These were:

- The limited field of apprenticeship for African, Indian and coloured children; and
- The poor economic condition of these populations in urban areas.

The Department of Social Welfare claimed in 1943 that 'the low standard of living, meagre and inferior education and the obstruction of race and class barriers was *mainly responsible* for preventing the entry of large numbers of African, coloured and Indian people into the skilled manual and white-collar occupations' (Union of South Africa 1943: 40). It was argued that these factors made it unnecessary and almost foolhardy to 'inject large funds into providing technical and industrial education facilities, even though there were large numbers of outstanding African and coloured workers that had the potential to become skilled craftsmen, foremen and building contractors' (Union of South Africa 1949: 252).

Certainly, the United Party government in the period immediately after the Second World War was very concerned to respond to calls from the African, coloured and Indian urban population for greater technical training provision. However, given the overall poverty-stricken level of these groups, the United Party government focused on providing industrial education that simultaneously responded to urban problems like crime, social ordering, labour strikes and the increase in squatting in the cities.

For example, in Cape Town greater attention was given to the eradication of 'the skollie-boy' in that period, while the Johannesburg municipality focused on the 'native' or 'tsotsi problem'.⁵ These urban social phenomena were regarded as products of a system that could not provide labour for young African, coloured and Indian children leaving school. These arguments were very similar to those associated with technical and vocational education provision for 'poor whites' in the early parts of the twentieth century. It is also notable that this approach to technical and vocational education provision for African, coloured and Indian learners in the 1940s was pursued at roughly the same time that technical and vocational education provision for white learners was starting to shift from welfare-like provision to the pursuit of certification and skilled training (Union of South Africa 1949: 253).

The outcome of these debates was that technical and vocational education provision for African, coloured and Indian learners after 1948 was predominantly provided in institutions that focused on 'teaching them the required discipline and the social habits of work (using military disciplinary codes), as well as to learn useful trade training that could make them self-supporting in the workplace' (Union of South Africa 1949: 247, 253). The De Villiers Commission observed that in any case:

- The educational requirements of the *Apprenticeship Act* made it almost impossible for African, coloured or Indian youths to be apprenticed as compared to white youth; and
- Apprenticeship committees almost always awarded available apprenticeships to white youths. (Union of South Africa 1949: 247)

Given the limiting nature of the apprenticeship system, it was asserted that technical education initiatives would be more productive by focusing directly on the poverty and aimlessness of the indigent and poor children of the 'submerged African, coloured and Indian groups'.

Vast numbers of 'non europeans' are not equipped for life or work. They live at a low level, and are inefficient workers. Many become a burden upon the state as offenders or paupers. It is of paramount importance that steps be taken at once to prevent this waste of the country's human resources by providing some sort of training. Until such time as adequate educational and vocational facilities have been established, camp training centres offer the best solution to this problem. (Union of South Africa 1949: 247)

Technical and vocational education provision in the period after 1950

By the 1950s the system of technical and industrial education provision for white learners was well-organised and differentiated. Using testing of IQ levels and scholastic ability, white learners with moderate or high IQ levels could be

accommodated in technical training institutions that rapidly developed skills that ensured their employability.

In direct contrast to this system, issues of 'discipline', 'salvation' and 'regulation' linked to penal and disciplinary institutions came to represent the main focus of technical and vocational education provision for African, coloured and Indian learners after 1948. Technical and vocational education provision for African, coloured and Indian learners essentially meant 'discipline-based' basic trade training that responded to their work, social and community needs. This approach was based on the 'racial logic of the period', and on the assumption that all children in these groups were easily capable of becoming uncontrollable and thus had to be 'rigorously regulated' at all times (Badroodien 2001: 292).

African, coloured and Indian learners in the period 1950 to 1970 were differentiated strictly according to:

- Their urban or rural roots; this distinction was deemed important for their eventual 're-integration' into their respective communities.
- The ability of learners to pay for access to technical education institutions. It was argued that those learners that *could not* afford fees were generally from the 'submerged class' and that their technical and vocational training needs were primarily accommodated in state correctional facilities such as schools of industries, reformatories and prisons (Badroodien 2001: 47).

This approach to dealing with technical and vocational training needs of African, coloured and Indian learners is best captured in the report of the Botha Commission of 1956. The Commission noted that technical education provision for black learners 'needed to bring the needs of individual learners closer to that of their communities' so that they could be integrated productively as members of such communities. The aim of technical education therefore was to 'build up happy, useful and productive African, coloured and Indian communities that were able to realise the potential of individual members to the fullest extent' (Provincial Administration of the Cape of Good Hope 1957: 7).

Significantly, the Botha Commission also noted that school population figures (particularly) for coloured and Indian learners had been growing rapidly, and that 'if it was borne in mind that a large part of the population of South Africa made a living by the use of its hands' further educational instruction for

Indian and coloured youths needed to emphasise the development of their manual skills. In that respect, the Commission emphasised the need to provide special courses in subjects such as woodwork, practical agriculture, needlework and housecraft in coloured and Indian public schools (Provincial Administration of the Cape of Good Hope 1957: 10).

More specifically, the Commission noted in 1956 that:

It was most impressed by the vocational training received by pupils at institutions for children committed via the Children's Act, and the sound vocational preparation that they are being given there. It is only to be regretted that a child has to be committed to a reformatory or school of industries before he can share in these benefits. The type of education received by the pupils in these institutions would certainly be of great value to all pupils. (Provincial Administration of the Cape of Good Hope 1957: 15)

Indeed, the provision of technical and industrial education for black children in the period 1920 to 1970 was significantly defined by external factors such as the absence of compulsory education, the levels of poverty under which most of them lived, the low levels of education attained by many of them, their exclusion from apprenticeship and job opportunities based on race and the limited availability of black technical education institutions.

Crucially after 1948, state education provision under the apartheid government remained similar in orientation for African, coloured and Indian learners. However, provision was provided for the respective groups in quite different ways according to respective social contexts and different legislative provision. For example, Chisholm (1992: 10) notes that education provision was vocationalised for African youths after 1948 through the 'new' system of Bantu Education. This approach sought to develop a national system of education for African learners and tie African education to the labour market in very loose ways linked primarily to agricultural and mining interests. Under the Bantu Education system there were by 1955 two technical colleges, five technical secondary schools and ten trade schools for African learners (Chisholm 1992: 11). Crucially, all institutions were located in remote outlying areas and not in urban areas. It is notable that a high number of 'impoverished' African learners in urban areas shared vocational education

institutions with coloured and Indian learners before the 1950s, and were only systematically removed from such institutions after 1955.

For coloured and Indian learners, many of the changes in institutional provision after 1948 sought to develop structures and systems of provision that had been initiated before 1948. Most institutions continued to build on previous policy goals and developments, albeit their control was transferred to the Coloured Affairs Department and Department of Indian Affairs after 1960. Furthermore, given the slow start-up of the Coloured and Indian Affairs departments after 1960, most institutions were only transferred to their control in 1967. It was thus only in the 1970s that the technical and vocational education institutional plans that were developed in the late 1950s and early 1960s for coloured and Indian learners, came to be realised.

There had existed a long tradition of limited technical training provision for African, coloured and Indian children in prisons, reformatories, children's hostels and mission schools before the 1950s that emphasised 'work preparedness', 'religious adherence and vigour' and 'military discipline'. Such 'skill' training programmes had always predominantly focused on making children 'better citizens' and less of a 'danger' to the social order of the cities. The apartheid state after 1948 further elaborated and expanded these provisional arrangements for coloured and Indian learners (Badroodien 2001: 293), and in the period after 1960 to the 1980s developed a complex set of further technical and vocational education institutional arrangements around them.

Chisholm (1992: 11) has noted 'that big business began to undergo significant changes in the boom years of the 1960s that necessitated a radical restructuring of the racial division of labour and the social institutions that had grown up within its shadow'. These changes in the labour market informed the emergence and provision of technical high schools and manpower centres for African, coloured and Indian learners in that period and led to significant changes in legislation. The changes also responded directly to the declining economic situation in South Africa in the 1970s.

Meanwhile, technical and vocational education provision for white learners continually expanded. The apartheid state after 1950 focused specifically on making technical education provision more amenable and accessible to Afrikaans speakers (making the medium of instruction at many colleges Afrikaans), and sought to ensure that learners were trained in areas that guaranteed employment. Chisholm (1992: 10) notes that the level of technical and vocational education provision for white learners increased to such a degree in the period 1950 to 1970 that by 1966 'steps started to be taken to separate secondary from post-secondary training courses'. She observes that the *Advanced Technical Education Act* of 1967 then allowed for the upgrading of those technical colleges that concentrated on post-secondary training courses in cities like Johannesburg, Pretoria, Durban and Cape Town into Colleges for Advanced Technical Education. These were later to become technikons.

Conclusion

This chapter has shown that technical and industrial education systems from 1920 developed in very contradictory and bifurcated ways in South Africa and that a number of debates and social factors informed the levels of training gained by learners from the respective groups. In that respect, contests between 'respectability and indigence', between provision for 'civilised whites and the 'uncontrollable other', between technical and industrial education provision, between state-funded and missionary-led provision, and between provincial and central control over technical and industrial education provision in South Africa shaped the emerging system in ways that are pertinent to the present day.

Indeed, the low levels of skill with which learners left (and presently leave) technical and industrial education institutions can be traced to a combination of the factors noted above. Chisholm (1992: 6) noted in 1992 that the South African system of vocational training provision has always been characterised by a weak and fragmented education-led, college-based system and an almost non-existent employer-led work-based system. Added to this, issues of economic growth and the development of high level skills have always been absent features in the story of technical and industrial education provision in South Africa.

In 1994 the incoming South African government inherited an extremely poor skills regime, one based on voluntarism, poor quality and narrow, employerled definitions of skill. All attempts to build a new institutional environment will need to be cognisant of the country's history of technical and vocational education provision and the complex ways in which that history affects the contributions of respective learners who exit the system at the various institutional points.

Efforts to build a new institutional regime are explored later in the book. This chapter has pointed to the key historical factors that will constrain and limit the successful adoption of a skills regime that favours high skills formation. A paramount question remains: how to overturn the extremely low skill levels of African workers and learners within a system that simultaneously produced significant levels of skilled white learners.

Notes

- 1 It is not known why the terms 'industrial' and 'vocational' is often used interchangeably in policy texts in South Africa. Available literature indicates a clear distinction between technical and vocational education, yet not between vocational and industrial education. It is presumed that the term industrial is used to infer industrial activity or physical action.
- 2 This 'problem' was initially resolved by referring to industrial schools for children 'in need of care' as government industrial schools. In 1944 when most trade schools and provincial industrial schools were given permission to offer courses to the Standard 10 level, these institutions came to be referred to as technical high schools. Similarly, after 1944, Union Education Department industrial schools became known as 'schools of industries'.
- 3 The Churches were the main providers of trade training for coloured, African and Indian learners. In 1948 there were 15 state-aided church vocational institutions in South Africa, of which 10 were for African, Indian and coloured children. Of these the Midland Trade School at Graaff-Reinet and the St. Josephs Trade School at Aliwal North provided for coloured boys only. Most of the vocational schools for African, Indian and coloured children were run by the Roman Catholic and Methodist missions and had a strong religious focus (Union of South Africa 1948: 14).
- 4 Malherbe (1977: 188) has noted that the enrolment of all coloured, Indian and African children in technical colleges was terminated in 1962, in line with apartheid policy.
- 5 'Skollies' were associated with the 'dangerous' coloured submerged class in the western Cape. The word 'skol' is an Afrikaans word that suggests traits of parasitic and untrustworthy behaviour. Similarly, the term 'tsotsi' was linked to the submerged male African class in the Johannesburg–Soweto area, conjuring images of aimlessness, unemployment, crime and lack of work discipline.

2 Training policies under late apartheid: the historical imprint of a low skills regime

Andre Kraak

Introduction

This chapter analyses the industrial training system that operated under the former apartheid state, specifically during the period between 1980 and 1994. The analysis will highlight the distinctive 'low skill' characteristics of the enterprise training regime in that period, most importantly, the predominance of narrow and employer-led conceptions of skill; a weak institutional regime; racially-exclusionary labour market and education and training (ET) institutions; and the predominance of an antiquated 'craft' model of apprenticeship. It also sheds light on the reformist attempts by the late apartheid state to transform the skills regime by moving the system away from its apartheid 'low skill' origins towards a reformist framework based on free market regulation; employer voluntarism; a revived apprenticeship system; and a new institutional environment structured around Industry Training Boards (ITBs). These reforms were primarily in response to economic difficulties but, as the Introduction suggests, they were also in response to the rise of mass political opposition to the apartheid regime from both worker and student movements across the country.

Some of the reforms held out significant promise in terms of the politics of the late 1980s, an example being the proposals for a single integrated Department of Education and Training and closer linkages between the academic and vocational education and training sectors. However, the proposals were ultimately to fail, largely because they came at a time of tumultuous political change, but also because they were too voluntarist; the institutions they proposed too weak; the qualification structures too fragmented; and the employment environment characterised by 'low trust' between the key social partners.

Due to the political changes ushered in during 1990, the reformist agenda of the late apartheid period was quickly replaced by the policy formulation processes of the anti-apartheid movement, beginning in February 1990 but consolidated after April 1994 with the transfer of political power to the African National Congress (ANC). As such, this chapter provides a useful backdrop to the review of the post-1994 skills development framework that follows in Chapter Five.

The reform of the apartheid training dispensation

The most important reform initiatives spearheaded by the apartheid regime in the late 1970s and early 1980s were the Riekert and Wiehahn Commissions of Inquiry into labour, training and black urbanisation legislation. These developments were followed by several research-driven initiatives that led to amendments to the legislation regarding industrial training. Amongst these were the 1985 National Training Board/Human Sciences Research Council (NTB/HSRC) *Investigation into the Training of Artisans*, which led to key amendments to the *Manpower Training Act* of 1981; the 1989 NTB/HSRC *Investigation into Skills Training in the Republic of South Africa*, which studied the training needs of semi-skilled black operative workers; and finally, the 1991 NTB/HSRC *Investigation into a National Training Strategy for the RSA*.

Three issues to do with training emerged from various reports. They were:

- The growing obsolescence of South Africa's racially-defined craft model of apprenticeship;
- The lack of co-ordination of training efforts at a national level; and
- The fragmented and divisive nature of the qualifications structure.

The obsolescence of the apprenticeship system

The Wiehahn Commission was appointed in 1977 in the aftermath of the school student and worker uprisings to investigate labour and training legislation. The Commission argued that the South African industrial training dispensation had a number of serious shortcomings that thwarted efforts to

provide sufficient manpower of the right quantity and quality. Wiehahn described the existing industrial training system as a:

... complex network of legislation administered by a multiplicity of departments and bodies. The inevitable consequences are overlappings and gaps, lack of standardisation and co-ordination and dissipation of scarce resources in terms of money, manpower and time. There has also been a proliferation of training programmes produced by various institutions, giving rise to problems in regard to co-ordination of policy formulation and planning. (Wiehahn 1982: 231)

Both Wiehahn and the Riekert Commission (appointed at the same time to look at issues surrounding black urbanisation) recommended the streamlining and rationalisation of labour and training legislation, which culminated in the enactment of the *Manpower Training Act* (MTA) of 1981. They also recommended the establishment of the National Manpower Commission (NMC) and the NTB. Both bodies were set up to give advice to the Minister of Manpower on labour and training matters.

One of the first major tasks assigned to the NTB was to undertake research with the HSRC into artisan training in South Africa. The result was the 1985 *Investigation into the Training of Artisans* (NTB/HSRC 1984) report. It questioned the ability of the old apprenticeship system to meet current technological skill requirements. Apprenticeship entailed serving a fixed period ranging from three, four or five years depending on the specific trade. It also involved some form of 'on-the-job' practical experience, which was often unsupervised and unstructured. Theoretical study up to the level of N1 (equivalent to Grade 10) or N2 (Grade 11) was undertaken on a block-release basis at neighbouring technical colleges. The report provided a devastating critique of the apprenticeship model. The criticisms included:

- In many cases, inappropriate approaches to apprenticeship training were followed, leading to the production of artisans of a low standard. This criticism referred to the 'sit-by-Nellie' form of practical training, which was largely unsupervised and unstructured training.
- The lower quality artisan was often associated with achieving artisan status by 'effluxion of time': a system whereby mainly white workers acquired artisan status after five years irrespective of passing the trade test.

- A general dissatisfaction with the time-based nature of apprenticeship training, which did not take into account the differing learning tempos amongst apprentices.
- All apprentices did not enjoy the privilege of training over the full spectrum of their trade due to inadequacies in facilities and opportunities provided by the employer. Many employers used apprentices to perform a specific task, thereby restricting the development of their overall skills.
- The system of control over apprenticeship training was unstructured and sporadic. (NTB/HSRC 1984: 108–9)

The 1985 NTB/HSRC report argued that as a result of technological changes and accelerated production processes, the traditional time-based artisan training system was becoming less well-defined and was being increasingly phased out internationally. It noted the tendency towards full-time studies in Europe involving the convergence of apprenticeship training with institutionally-based career education (NTB/HSRC 1984: 45, 52).

The NTB/HSRC advocated institutionally-based ET because it provided opportunities to remedy many of the problems associated with apprenticeship. Firstly, it provided both structured and monitored training, something which apprenticeship generally failed to achieve. Secondly, it integrated theoretical and practical training more effectively than under the apprenticeship system. Thirdly, the NTB/HSRC report argued that it was a flexible system, allowing progression paths across an array of ET institutions for all levels of workers. This was important as apprenticeships catered only for artisans. Fourthly, it allowed the broadening of skills training to include the more cognitive (problem-solving, innovation and higher productivity) elements that the new technologies now required. Much of South Africa's apprenticeship training during the 1980s was still job or trade specific and ignored these cognitive elements.

The lack of national co-ordination

The reformist partnership between the HSRC and NTB continued in the late 1980s and early 1990s, culminating in the research and production of a study entitled *Investigation into a National Training Strategy for the RSA* (NTB/HSRC 1991). The concerns of the *National Training Strategy* (NTS) were essentially two-fold: firstly, the need for more effective national

co-ordination of training; and secondly, the establishment of a national system of vocational qualifications. The NTS report was replete with evidence and arguments about the lack of co-ordination in the industrial training system:

Previously the focus was on the stimulation of training by means of financial support (tax concessions and cash grants). Now it is being increasingly recognised that the problem must be approached from another angle. [This NTS study] shows that, among other things, training appears to be done in a relatively uncoordinated and arbitrary manner. Most organisations train people mainly for their own specific needs, while those organisations which do not undertake their own training simply 'buy' trained personnel by offering them better salaries and bigger perks. (NTB/HSRC 1991: 139)

The NTS argued that there was little co-operation between different employers within and between various industries with regard to the coordination of training. Similarly, there was little co-operation between the state and employers over the optimal utilisation of training facilities and optimal output of trainees. As a consequence, no coherent national training strategy existed (NTB/HSRC 1991: 109, 213).

The NTS was also concerned that the high levels of devolution surrounding the newly-constituted Industry Training Boards (ITBs) would accentuate problems of national co-ordination. For example, the autonomy granted to each ITB to define its own training policy posed the risk that the skills developed would be non-transferable across industries. Even though the state was enthusiastic about the system of devolution and dual accreditation, there was some recognition in the NTB of the problems thrown up by nontransferable training:

Every ITB may feel the need to structure the accreditation process according to its own views and needs. It is necessary, however, to lay down a general guideline and procedure to ensure a reasonable degree of uniformity. A large degree of divergence will not only lead to confusion among training institutions but may also be detrimental to the comparability and maintenance of standards (NTB 1986: 25).

A divisive qualifications structure

The highly fragmented nature of vocational qualifications in South Africa was another cause of concern for the NTS. Four problems with respect to certification were analysed in the report. Firstly, there was the problem of the racially-fragmented set of state education and training departments which needed to be merged into a single, coherent state institution capable of effective ET delivery and certification. Secondly, there was a multiplicity of certification bodies in formal education but no such body in the vocational training sector. Thirdly, there was the need for enhanced transferability of skills within and across differing industrial sectors. And lastly, greater articulation was needed between the formal education system and the vocational training system.

The lack of a single education department

In the period prior to 1994 South Africa had 19 racially-defined education departments. But the institutional chaos extended further. The Department of Manpower (DoM) was supposedly in charge of co-ordinating all matters relating to the training of workers in the private sector. However, there were separate manpower departments in each of the nominally independent homelands. In addition, the administration of training for local authorities, the public sector and some parastatals were handled by these structures independently of the DoM (NTB/HSRC 1989: 263–4; NTB/HSRC 1991: 113). Given this multiplicity of education and training departments, certification processes in South Africa were chaotic and non-comparable.

A multitude of certification councils

Another factor contributing to the certification chaos in the late apartheid period was the lack of a certification council spanning both academic and vocational education and training. As a result, there was no mechanism to accredit education and training received across industrial sectors and between ET institutions. The 1981 De Lange Commission report entitled *Provision of Education in the RSA* (HSRC 1981) shared these concerns regarding fragmentation and recommended the further investigation of a national certification body that would be responsible for standards of evaluation and certification in both the academic and vocational education and training

sectors. Arising from this concern, a further Department of National Education (DNE) report was published in 1984. It confirmed the high degree of non-coordination of study material as well as the non-coordination of examination and certification processes between examining bodies in both the academic and vocational education and training sectors (DNE 1984: 63). There were nine examining bodies that administered up to 90 exams per year with a high degree of duplication (DNE 1984: 11). The investigation suggested that the certification system in formal education had not succeeded in 'satisfying the public that the school-leaving, matriculation and matriculation exemption certificates issued were of equal quality' (DNE 1984: 104).

The 1984 DNE report concluded by arguing that there were three options which could solve South Africa's certification problems: one wholly integrated council for all school certificates, technical college diplomas and university/ technikon awards; three separate councils for each of these areas; or an umbrella council incorporating three sub-councils (DNE 1984: 7). Although the investigation recommended the formation of a single certifying council, this applied largely to formal education: schools, colleges, technikons and universities (DNE 1984: 107). The terms of reference of this report ignored the question of vocational qualifications. To make matters worse, the state in 1986 passed legislation that signalled a complete abandonment of the possibility of a wholly integrated certification council. Instead, the state established two separate councils in formal education: the South African Certification Council (Safcert) for school qualifications, and the Certification Council for Technikon Education (Certec) (DNE 1991: 49–51). Certec was operationalised in January 1991, and Safcert began functioning in 1992.

However, the problem of a lack of a system of nationally-recognised vocational qualifications and their articulation with formal education had been largely ignored by these reforms.

The non-transferability of skill across industrial sectors

The lack of a qualifications structure in the vocational training sector was a major issue of concern in the NTS. The report maintained that this limited the transferability of skill between differing employers and industries, and it constrained the articulation of differing ET routes:

... no system of recognition or accreditation of training exists between employers in different industries or, in many cases, between employers in the same industry. This may lead to duplication of training, trainees being retrained in the same skills by different employers, or an inability of a person to obtain work demanding skills already acquired. (NTB/HSRC 1991: 2)

The non-transferability of skills was a direct consequence of this highly fractured system of training. The training that was provided in the private sector was generally not certificated, and if certificated, was usually not recognised outside of a specific enterprise or industry. Training was also most often provided in an ad hoc manner that did not lead to clear mobility paths for workers. Of the firms surveyed by the NTB/HSRC, 66 per cent admitted that they had no recognisable career paths for their workers, and 32 per cent acknowledged training by the 'sit-by-Nellie' type (NTB/HSRC 1989: 190). A similar finding was noted in the NTS report where more than half of the respondents interviewed felt that the training received was industry-specific and did not open doors to new jobs (NTB/HSRC 1991: 108). Most workers found themselves in dead-end jobs, and the minimal training received did not change that reality.

The non-articulation of ET sectors

The question of the need for greater articulation or mobility between the academic and vocational education and training sectors has been on the South African educational agenda since the early 1980s. The De Lange Commission, for example, argued that there was limited horizontal flow in the South African education system (HSRC 1981: 96). It argued that formal education was conservative in structure and was resistant to further inlets from vocational training sector. The report maintained that the distinction between the two ET sub-systems was merely one of definition and therefore could be changed easily through redefinition (HSRC 1981: 125, 126). The report argued for a flow from academic to vocational education and training, and vice-versa. No institutional ceilings should be erected in the path of students wishing to progress further. Without such perceptions of barriers, those students not oriented toward the traditional academic route, could move on to the senior secondary career school phase proposed by De Lange, and then on to technikon or university. De Lange also argued that provision

should be made for improving the vertical mobility of skilled workers by offering evening courses in more advanced skills. The NTS concurred with these arguments:

There is an absence of links between the training system and the formal education system and no accreditation system which would enable recognition by the formal education sector of qualifications obtained in the non-formal [vocational training] sector. (NTB/HSRC 1991: 2)

The key components of reform

The industrial training reform agenda of the late apartheid period, as outlined above, was substantial. The state chose to accept several of the key recommendations of these commissions and research reports, but as will be seen later in this analysis, it also chose to ignore other recommendations. As a consequence, there was significant change to the training landscape but not sufficiently dramatic to escape the apartheid stranglehold.

The establishment of ITBs and a new model of apprenticeship training

The findings of the 1979 Riekert and 1982 Wiehahn Commissions of Inquiry, and the research results of the 1984 NTB/HSRC *Investigation into the Training of Artisans* led to significant changes in the system of artisan training. The 1984 report recommended a system incorporating 'modular performance-based institutional training coupled with controlled on-the-job training and experience'. The different elements of such a model implied:

- An end to the system of 'effluxion of time' (NTB/HSRC 1984: 118);
- The teaching of trade theory alongside practical training in a single institution, each being interspersed with the other to achieve the best co-ordinated balance;
- Structured and controlled practical training, preferably at an institution;
- Structured and controlled practical experience, on-the-job; and
- The use of a performance or competency-based learning model, reliant on the demonstration of competence in each of a set of given training modules. (NTB/HSRC 1984: 113, 116, 118, 120)

Most of these proposals regarding ITBs and the new apprenticeship system were accepted by the state and incorporated into legislation with the publication of an Amendment to the *Manpower Training Act* in July 1990. The institutional and legislative arrangements for apprenticeship training, as defined by the amended Act, were remarkably different to those of the past. There was a strong emphasis on institutionally-based theoretical and practical training. The amended Act attempted to encourage the development of private sector training centres that would undertake institutionally-based apprenticeship training (NTB/HSRC 1989: 33).

It also converted the existing time-based training system into a competencybased system where modular training would play an important role (NTB 1990: 71). By so doing, the system known as 'effluxion-of-time' was abolished. The significance of the 'competency-based modular training' system was that artisan status could no longer be attained through a fixed time served and the passing of a trade test. Rather, the new model required demonstrated competence at each stage of a structured modular training route.

Most importantly, the amended Act of 1990 provided for the devolution of control over apprenticeship training from the DoM to ITBs. These ITBs were established in all industries, and were granted full control over administration and certification of all training undertaken in that industry.

The shift towards devolution was most strongly motivated by the argument that state involvement in training usually always led to inefficient bureaucracy and that any coercion of employers to train would not succeed (NTB/HSRC 1991: 119). The proposed devolution of authority to ITBs would leave such boards free to 'meet the training needs of its industry in the best way it sees fit, without state intervention in the day-to-day provision of training' (NTB/HSRC 1989: 246).

The advantages of industry-based co-ordination of training were outlined in a set of 1986 NTB guidelines aimed at assisting industries with the establishment of ITBs. The guidelines suggested that ITBs would increase the bargaining power of industry by mustering the collective interests of all employers. ITBs could also lead to an improved identification of the manpower needs of each industry. Employers could better promote the training of all employees in the industry by benefiting from the economies of scale generated by industry-wide training. ITBs could also generate industry-based finance, and in so doing, ensure that the load of training within industry was equitably shared. The ITBs would also facilitate a better co-ordination between industry and the various state education and training institutions (NTB 1986: 1–2).

The guidelines suggested that ITBs would form an integral part of the national accreditation system to ensure overall maintenance of the quality of training. Lastly, ITBs would assist in reducing the extent of poaching and the consequent increases in the wages of artisans resultant from high turnover rates (NTB 1986: 2; NTB/HSRC 1989: 239).

Proposals for reforming certification

The NTB/HSRC research investigations also made important recommendations that sought to provide solutions to the problems of certification raised in the above discussion. Five themes emerged in these recommendations. Firstly, the acquisition of meaningful certification by ET trainees was seen by these investigations as a key principle: 'certification is a powerful motivation to learn, particularly where the certificate is a guarantee of quality and is recognised as such by employers' (NTB/HSRC 1991: 43). As a consequence, many of the institutional changes proposed were concerned with establishing a more effective national system of certification.

Secondly, the need for greater transferability of vocational qualifications within and across industrial sectors was strongly recommended in the 1991 NTS report. A national certification body was proposed which would ensure acceptable training standards and transferable skills:

The concept of a training qualification structure is that accredited modular training undertaken with one employer and fitting into the qualification structure will be recognised for employment purposes by other firms within the same industry as well as by employers in other industries. Recognition will be given because the course is well structured and is competency based resulting in the holders of a specific qualification having known competencies which are of value in employment. (NTB/HSRC 1991: 264)

Thirdly, recommendations were made that argued for a greater articulation between the academic and vocational education and training sectors:

Nationally recognised [training] qualifications based on the completion of a series of accredited courses and modules should be developed. Such qualifications should be considered by the formal education departments for accreditation so that holders of such qualifications can re-enter the formal education system with credits acquired in the non-formal [vocational training] sector. (NTB/HSRC 1989: 195)

Fourthly, the NTS recommended the establishment of a certification body to administer a national system of vocational qualifications. The NTS recommended that the structure of such a certification body for vocational training should resemble that of the National Council for Vocational Qualifications in England and Wales (NTB/HSRC 1991: 264), or that of Safcert, which operates in relation to the South African formal education sector (NTB/HSRC 1989: 257).

Finally, the 1989 and 1991 NTB/HSRC reports argued for a single, unified Department of Education and Training. The 1989 report makes the bold recommendation for:

... a closer integration of formal education and training initiatives and actions with a view to the eventual formation of a nationally integrated vocational education and training system. (NTB/HSRC 1989: 256)

The 1991 NTS report went a step further and suggested 'one department having the dual functions of education and training'. The stress on integrated ET in the reports had much to do with 'black workers' lack of trainability' (NTB/HSRC 1991: 263, 266). The reports argued that large numbers of workers were illiterate and innumerate and this made 'training very difficult because methods had to be found to teach skills without resorting to writing' (NTB/HSRC 1991: 127). Implicit in this argument was the acknowledgement that a solid general educational foundation was essential for successful vocational training.

Proposals for improving national co-ordination

One of the key recommendations of the NTB/HSRC reports was a redefinition of the functions of the NTB to play a more central role in national

co-ordination via the standardisation of training across all industries. This was to be accomplished through monitoring activities, research and the issuing of guidelines and advice. The 1984 and 1989 NTB/HSRC reports recommended the establishment of a 'Joint Committee on Common Trades', which would form an extension of the NTB's Artisan Training Committee. Such a committee would bring together industries with common trades to rationalise and reduce the number of designated trades. Another recommendation of the 1984 report was to establish a joint co-ordinating committee consisting of representatives from technical colleges, industry and the Department of Manpower. This committee would have representation on the NTB Artisan Training Committee. It would be replicated at industry level to deal with the updating of course syllabi. These joint committees would then be the primary institutional means of co-operation between employer and ET institutions (NTB/HSRC 1984: 114–5).

The 1991 NTS report made additional recommendations to enhance the capacity for national co-ordination. The most important of these was the establishment of what it termed 'the training partnership' (TTP), a loose alliance of all the partners involved in the training enterprise including the state, employers, trade unions and all relevant institutions of academic and vocational education and training (NTB/HSRC 1991: 9, 27). The mission of such a TTP would be 'the provision of appropriate and adequate training for all the peoples of South Africa ... bearing in mind the economic and other needs of the country ... and the need to optimise the utilisation of the limited training facilities of the country' (NTB/HSRC 1991: 9). The NTS emphasised the inclusion of trade unions such as the Congress of South African Trade Unions (Cosatu) within the TTP (NTB/HSRC 1991: 244).

The second important institutional recommendation emanating from the NTS Report was the proposal for a 'National Convention', to be constituted by the inaugural meeting of the TTP, after which it would meet every five years with the purpose of revising and updating the national training strategy. The report of the National Convention would be submitted to the Minister of Manpower, who would then prepare a state White Paper mapping out the precise parameters of such a national training strategy (NTB/HSRC 1991: 250, 252).

A third institutional recommendation involved the establishment of an Association of Industry Training Boards (AITB). This would be an association

of all ITBs coming together to serve as a communication link between industry and the state on training matters. The AITB would have no statutory authority over any individual ITB, but would rather provide a forum for discussion between ITBs on common training problems, and could provide for possible co-ordination of training efforts and the more effective use of available training facilities (NTB/HSRC 1991: 255). The AITB would serve as a forum where issues such as the need to rationalise common trades and design common core syllabi could be negotiated across all industries (NTB/HSRC 1989: 259).

The AITB would function on the basis of a voluntary commitment on the part of participating ITBs. Functioning together with other proposed institutions such as the TTP, the National Convention and the NTB, the AITB would 'attempt a balance between voluntarism and sufficient prescription in order to eliminate any log-jams' and achieve national co-ordination of training efforts (NTB/HSRC 1991: 45).

Overview of the apartheid-era reform process

The next section will present a critical overview of the training reforms that were proposed in the last years of the apartheid regime. Whilst the Commissions of Inquiry and research investigations which were instituted by the reformist state identified many of the real problems, and whilst many of the recommended changes were substantive, the reforms ultimately failed. Six factors lie behind this failure and each will now be looked at.

Triumph of the market

One of the most fundamental elements of the new training dispensation as proposed by the reforming apartheid state in 1991 was that it should be market-driven and employer-led with a significantly diminished role for the state. The rise of this 'free market' framework had its roots in changes to apartheid state macroeconomic and industrial policy that took place a few years earlier. This shift from a macroeconomic philosophy based on active state intervention in support of import substitution policies and apartheiddefined institutional structures to that of a free market perspective represented a critical watershed in South Africa's political and economic history. It entailed a shift in the conceptualisation of the state's role from that of decisively shaping the racial capitalist character of South African life, to a social system which allowed market forces to be prominent in most spheres. Nattrass succinctly captures the significance of this transition:

Just as 1924 was a watershed year in terms of the direction of government policy, so in retrospect may 1977 prove to have been similar. In this year, three commissions were appointed by the government ... All three reports emphasised that the time had come for the state to play a less important role in shaping the economy, that the private sector should play a very much larger part in economic policy-making, and that the market should be left to operate as freely as possible (Nattrass, as quoted in Abedian & Standish 1992: 9)

Morris and Padayachee argue that this transition represented the triumph within the state of a 'market-oriented, neo-conservative group over the hardliner adherents of classic apartheid and import-substitution' (1989: 95).

Both Riekert and Wiehahn emphasised the principle of self-governance and decentralisation of decision-making, arguing that responsibility for training in a free market economy lay with the employer. State efforts should only be complementary and not a permanent substitute. These views laid the foundations of a market-led ET policy framework that was to emerge in the late 1980s (Wiehahn 1982: 224, 228, 230; RSA 1979: 219).

The far more influential 1983 Kleu Commission (RSA 1983) consolidated this commitment to free markets. It acknowledged the need for state intervention in circumstances of market failure, although qualifying this by suggesting that such intervention should be as indirect and temporary as possible:

Because of certain failings of the market system state intervention, as distinct from the direct production of goods and services, is now regarded as generally acceptable ... In view of the fact that the market mechanism should as far as possible be utilised to promote industrial development in South Africa, the various types of policy measures must be considered in the following order of priority:

i) Only when it has been established that the market mechanism is not working satisfactorily or cannot be improved, should

industrial policy measures, that is incentives or disincentives influencing the allocation of resources, be applied.

- These policy measures should as far as possible be in the form of indirect control, that is measures which, by influencing the market mechanism, encourage or persuade the participants in the economic system to act or not to act in a specific way.
- iii) Direct control measures ... [which] regiment, permit or prohibit specific economic activities, should as far as possible be avoided because they disrupt the market mechanism and impose difficulties in the way of the co-ordination of policy measures. (RSA 1983: 6–7)

The above formulation clearly outlined the reformist regime's thinking on state market interaction. It had an enormous spill-over effect into the reform of training legislation in the latter half of the 1980s and the early 1990s. For example, the NTS ceded to the private sector a substantial role in the design of a new training infrastructure and curricula, in order to obtain their support and approval:

In order to ensure the acceptance of such training by the private sector it is recommended that the Private Sector Education Council (Prisec) be approached to assist in the design of such a programme ... The programme should consist of facets such as literacy, numeracy, communication, social and personal skills, technology, the working environment and working ethics, problem solving and general job-related skills and should develop moral and religious value. (NTB/HSRC 1991: 263)

The NTS report then recommended that Prisec should play a pivotal role as the link between industry and formal education. It recommended that Prisec acquire special representation on the South African Council for Education (SACE) and the NTB so that it was able to specify its educational requirements and assist in defining curricula needs at the highest possible levels (NTB/HSRC 1991: 258, 265–6).

These NTS proposals were problematic because they privileged the interests of employers over those of other actors in the educational arena – such as organised labour and the teaching profession. Prisec, a private-sector think

tank and education development agency, was to be accorded significant powers to define the content of ET. However, this privileged position ceded to employers held the risk that much of the ET proposed by capital and the NTS would be provided in a very narrow sense, developing job-specific skills and certain behavioural attributes whilst excluding the more generic (formal educational) skills. In a position paper on a future South African ET system written at the time, Cosatu, the democratic trade union movement, was very critical of the NTS approach regarding trainability. Cosatu maintained that the NTS gave undue emphasis to employer-defined job-specific skills and behavioural values at the expense of more substantive general knowledge areas (Cosatu 1991: 26).

A related concern was the NTS's view of the state's role. Displaying a rather contradictory approach, the NTS at first argued for effective state co-ordination, support and intervention in the training field:

... the state should make an investment in the training system. Training is supplementary and complementary to the education system and is concerned with the development and evolution of the total community and as such is also a state responsibility. (NTB/HSRC 1991: 260–1)

The NTS acknowledged the magnitude of co-ordinating an effective training strategy in South Africa. The report warned that 'there would be little point to the provision of a training strategy in the absence of an organisation capable of activating, evaluating and controlling the strategic management process' (NTB/HSRC 1991: 53). Given the non-existence of these organisational features in the training management infrastructure at that time, a decisive state role appeared unavoidable.

The NTS also placed a strong emphasis on the need for the state to take responsibility for the training of the unemployed, the illiterate and the 'lost generation' of disaffected black youth (NTB/HSRC 1991: 178).

In contrast to this first line of reasoning in the NTS report, with its strong emphasis on effective state co-ordination, a second line of argument stressed curbing state activity and devolving responsibility for training onto employers at industry level. The entire NTS thrust towards devolution was based on faith in the effective operations of the market mechanism and the 'good intentions'
of employers to initiate extensive quality training at industry level. The emphasis on voluntarism gave each industry the freedom to determine its own industry training strategy free of state prescription (NTB/HSRC 1991: 1).

How were these two seemingly opposed positions reconciled? What was the primary responsibility of the state to be – facilitating the devolution of training or national co-ordination? These seemingly irreconcilable approaches can in fact be reconciled in the light of Kleu's formulation – quoted at length earlier – which posited the view that state intervention was only defensible in the case of market failure. On the one hand, the NTS report strongly identified with the notion that market forces were an effective allocative mechanism in the generation of private sector training. On the other hand, the NTS identified certain areas of market imperfection. The problems of the 'lost generation', the large numbers of unemployed, the mass of illiterate and innumerate workers not easily trainable – all of these were examples of where the market had been unable to provide solutions. It is in response to these problems that the NTS report placed a strong emphasis on state co-ordination of training (NTB/HSRC 1991: 248, 254, 263).

However, reconciling these conflicting demands using Kleu's formulation of the role of the state is not a satisfactory resolution of the inherent tension between these two demands – devolution and national co-ordination. The harsh reality of minimal private sector training contrasted strongly with the immense faith the NTS had in the market mechanism through devolution of training. In failing to account for this contradiction, the NTS became nothing more than an employer-led phenomenon incapable of, and unwilling to intervene in, resolving the problem of low skills production in the private sector. It failed to view low skills training as a structurally and institutionally embedded phenomenon of South African capitalism that the market mechanism alone was incapable of resolving. This incoherence reflected the triumph of market ideology over the substantive evidence collected by the NTS of the manifest failure of market-led training in South Africa.

Propping up the old apprenticeship model

A second problematic feature of the apartheid reformist agenda was the prominence given to apprenticeship training. Even though the second and third NTB/HSRC reports were motivated by the need to provide training for all workers, the NTS report admitted that:

... in certain industries training boards focus on the acquisition of artisan skills ... while they do not focus on the acquisition of other skills. This may mean that large areas of training remain uncoordinated and that standards are not set for all types of training within an industry. (NTB/HSRC 1991: 125)

The preoccupation with artisan training had its origins in the 1984 NTB/HSRC report that recommended the formation of ITBs. The primary focus of these Boards continued to be artisan training. The clauses of the amended *Manpower Training Act* of 1990 were primarily concerned with apprenticeship training. Most training boards established since 1988 were concerned only with apprenticeship training. The sole focus on artisan training was highly problematic not only because it ignored the upgrading of operative and other workers, but also because it sought to prop up the apprenticeship model precisely at a time of its decline internationally.

The 1984 NTB/HSRC report recognised apprenticeship's growing obsolescence, and recommended a 'modular performance based institutional training model coupled with controlled on-the-job training and experience' (NTB/HSRC 1984: 113). However, the potentially innovative impact of these recommendations, particularly the emphasis on institutionalised training, was lost. The failure to substitute apprenticeship with a more institutionally-based route better equipped to meet future skill needs was a result of a number of factors. The state's inability to unify education and training departments negated the possibility of more innovative ET approaches such as full-time institutionalised training. Furthermore, the continuation of an apprenticeship route served capital's short-term interests as well. Apprenticeship involved small numbers of workers for those employers who trained, and allowed other employers to poach skilled labour. Apprentices could be used as cheap labour during their training years, which provided a low cost method of producing skilled labour. Competency-based modular training also provided capital with the possibility of deskilling work in certain craft areas. All of these factors provided capital with a cost-effective system in the short term. By ceding all control of training to capital, the apprenticeship system would be perpetuated. This was because old-style apprenticeship allowed employers to avoid the larger problem of upgrading the skills capability of the entire workforce.

Institutional fragmentation

The emphasis on devolution and minimal state intervention led the NTS to recommend six separate training and accreditation structures, none with sufficient authority to map out a coherent overall training policy. These separate structures were:

- The NTB, which would play a co-ordinating role between all other established structures, attempting to ensure the standardisation of training across industries and ET institutions;
- ITBs, which would accredit training in each industry;
- The AITB, which would co-ordinate the activities of the ITBs on a voluntary basis;
- The National Co-ordinating Body for the Informal and Small Business Sector, which would accredit training in these sectors;
- The Advisory Committee for Regional Training Centres, which would coordinate the activities of the nine state administered training centres; and
- The Committee for the Training of the Unemployed, which would be responsible for co-ordinating all state efforts to train the unemployed. (NTB/HSRC 1991: 258)

The problem inherent in these proposals was that accreditation of workers in each industrial sector and in the informal and unemployed sectors would be separately administered, with independent processes of certification that would not allow for easy articulation. There were no concrete proposals for mechanisms that would enable accreditation in one sector to be recognised in any other. Hence, the institutional arrangements to be set up contradicted the oft-repeated intention in the NTS report to bring about greater mobility of trainees between the academic and vocational education and training sectors.

An additional problem was that these fragmented arrangements did not make clear which structure would be responsible for the overall coherence of training policy – apart from the powers vested in the Minister of Manpower.

Divisive qualification tracks

The emphasis on decentralisation of training triggered additional problems, the most serious being the lack of cross-industry accreditation. Because of the emphasis on voluntarism, there was no legal or institutional pressure on the ITBs to resolve this problem. The NTS itself warned:

Training boards which focus on the needs of a specific industry may not realise that in other industries similar skills are needed. Duplication of training efforts and lack of mobility of trained personnel may then occur. Also the needs of the small business owner or the person who wishes to start his or her own business in either the formal or the informal sector may be neglected if training boards focus on only a specific industry and its training needs without co-ordination between industries. (NTB/HSRC 1991: 125–6)

The initial 1984 NTB/HSRC report argued strongly for the rationalisation of the large number of trade categories spread across all industries. Selected trades would be consolidated into common trade areas. In this way the administration of training would be simplified, and cross-industry recognition of trade certificates facilitated (NTB/HSRC 1984: 141). However, this rationalisation of trades was dependent on convenor industries volunteering to take the initiative for drawing up core syllabi. The inactivity in this sphere was unlikely to change given the 'voluntarism' governing artisan training. Industries were not obliged to do anything. As a result, certain skills would remain non-transferable across industries, thereby limiting the mobility of trained labour (NTB 1990: 34).

The problem was accentuated by the fact that many small companies often did not participate in the activities of ITBs. The dominance of ITBs by big companies would 'make it impossible for smaller firms in the same economic sector to form or belong to an ITB and enjoy its benefits' (NTB/HSRC 1989: 192). Furthermore, certain industrial sectors did not establish their own ITBs. The 1991 NTB/HSRC report warned that in the absence of training boards, 'co-ordination of training for similar skills between industries cannot take place' (NTB/HSRC 1991: 125).

Low trust: ineffectual tripartism

Even though the NTB/HSRC report claimed a commitment to a 'tripartite partnership', in practice the proposed training system ceded only a marginal role to trade unions. For example, the 1986 NTB guidelines for establishing

ITBs indicated that 'employers in industry must take the initiative ... employee organisations should be involved as far as is practically possible' (NTB 1986: 4). This is a far cry from the priority accorded the private sector (Prisec in particular) in the TTP. Indeed, many ITBs were formed with nominal trade union representation (clothing, textile and hospitality industries), or without the relevant trade union being aware of its registration (road transportation and chemical industries) (Cosatu 1991: 9–10). The issue of equality of representation and power between employers and unions had been absent in the deliberations that led to the formation of these boards.

In the NTS discussions concerning the TTP, the National Convention and the AITB, no specific recommendations were made with regard to trade union representation on these bodies. In so far as they might be tripartite, they were so devoid of power that they made trade union participation meaningless. For example, participants in the National Convention would have no power to ensure that negotiated agreements were put into practice. The National Convention would merely act in an advisory capacity to the Minister of Manpower, who would retain substantial control over decision-making (NTB/HSRC 1991: 251). Similarly, the proposed AITB would function as a voluntary discussion forum. The NTB was also envisaged as an advisory body. Cosatu was highly critical of this situation. It believed that the *Manpower Training Act* should compel employers to negotiate with trade unions in each industry, and that no ITB should be registered if the board did not provide for 50 per cent trade union representation (Bird 1991: 8).

Contradictory demands regarding the deracialisation of ET

One of the most remarkable features of the reform process in education and training during the last phase of the apartheid regime was the incredibly slow pace of real change. After almost a decade of proposals emanating from De Lange, Riekert and Wiehahn (all in the late 1970s and early 1980s), by the early 1990s the state had failed to respond decisively to many of the proposals.

The apartheid state had been at the centre of contradictory policy demands during the crisis-ridden decade of the 1980s. On the one hand, limited deracialisation of ET had been necessary in response to certain powerful economic imperatives. On the other hand, the political reform agenda in the form of the 1984 New Constitution necessitated the continuation of racial schooling, albeit within new forms. The state dealt with this tension by delaying any substantive reforms arising from the recommendations of its own Commissions of Inquiry.

The NTS document was paralysed by the tension between deracialisation and continued racial schooling. It surfaced most strongly in the conflicts that existed between the DoM and DNE. Historically, the DoM represented a more 'verligte', or 'economic rationalist', tendency within the state. It had been critical of the difficulties created by the segregated training facilities under the control of the more 'verkrampte', or conservative, DNE. These political divisions within the state were reflected in the NTS document when it argued that:

[Technical Colleges] are at present classified as educational institutions, which means that they tend to be segregated on a racial basis. Problems are created for employers and for trainees because it becomes difficult for all staff members of an organisation to receive training at the nearest or most convenient college. (NTB/HSRC 1991: 69)

Because of these intra-state complications, the NTS chose to exclude formal education from its deliberations. For example, in its description of the participants in the proposed TTP, the NTS report argued that formal educational institutions, 'consisting of schools, technical colleges, technikons and universities' would form part of the TTP only in those sections, courses and subjects specific to job training and acknowledged that the 'balance of such institutions fall outside the scope of the Training Partnership' (NTB/HSRC 1991: 30). This exclusion of general education from the TTP was a result of the long history of segregationist thinking within the DNE. It was an absurd formulation given the regular emphasis throughout the NTS report of the importance of general education to overall trainability.

The conflicting pressures on the state of deracialisation on the one hand, and the continuation of racial schooling on the other, were at the root of its paralysis in key ET policy areas. The NTS was shaped by these pressures, even though it was published during the initial phase of the 'negotiations era' of 1990 to 1991, which witnessed substantial shifts in state policy. These included the unbanning of prescribed organisations, the release of political prisoners and the abolition of some apartheid legislation. But this did not translate into reform in ET. Hence, even though much of the analysis contained in the NTS suggested the need for important changes – a unified department of education and training, a single system of academic and vocational qualifications, closer linkages between academic and vocational education and training – the state was nevertheless unable to follow its recommendations through to finality. They all incorporated varying degrees of deracialisation and institutional unification. The apartheid state had been unable to approve these shifts. As a result, the recommendations that were made were highly inconsistent with some of the evidence provided by the Commissions and NTB/HSRC Reports. The final changes agreed upon represented partial options which sought to bring about limited changes and did not radically disrupt the continuation of racial schooling.

Conclusion: a low skill equilibrium

The paralysis over deracialisation constrained the acceptance and implementation of reform proposals during the late apartheid period which resulted in the continuation of the division between education and training and which in turn inhibited the development of more integrated approaches to ET. The employer-dominated model as proposed in the NTS also marginalised the important contribution of the trade union movement and was incapable of attaining the TTP to which it so strongly aspired. And finally, the NTS recommendations failed to fully exploit the innovative potential thrown up by the shift away from apprenticeship towards a system based on full-time, institutionalised ET.

The apartheid state's abdication of responsibility for co-ordinating training and the emphasis on market regulation and voluntarism meant that few institutional mechanisms would exist at the macro level for the provision of a coherent national training strategy. The fragmentation of the proposed structures in the training arena were replicated in the socioeconomic sphere. The state did not provide the institutional linkages that could deliver an effective macro plan for the social and economic development of South Africa. For example, job creation schemes were generated on an ad hoc basis, and were not linked to economic growth strategies that could provide important 'kickstart' benefits for the entire economy. The training provided for the unemployed who participated in these job creation schemes was of a short-term duration and of poor quality, and provided no transfer credits into the formal training sector. The NTS report made no reference to the need for 'joined-up' linkages with other key planning institutions such as the National Manpower Commission and the state Economic Advisory Council.

In short, the reform proposals of the late apartheid period both perpetuated and reinforced a low skills equilibrium predicated on market regulation, a weak institutional environment based on voluntarism, the continuation of a racially-defined 'ET-labour market' regime, the absence of 'joined-up' state policies and social trust, and the predominance of short-termism and narrow skilling as the defining features informing investments in human capital.

Agricultural and industrial curricula for South African rural schools: colonial origins and contemporary continuities

Andrew Paterson

Introduction

What in more recent times is referred to as 'technical and vocational education' was spoken of in the early period of the evolution of education systems in Southern Africa variously as 'industrial', 'manual', 'agricultural' and 'adapted' education. This *mélange* of terms reflected multiple understandings of vocational education that encompassed a variety of skills that might be learned in rural or urban contexts

Badroodien has already provided a historical context for understanding the nature and extent of technical and vocational education provision in mostly urban contexts for different social classes and social groups in South Africa in the period 1920 to 1970. He argues that whereas technical and vocational education provision in the pre-1910 period was seen as suitable only for non-whites, this policy was reversed post-1910. As a result, education and training provision for Africans for most of the twentieth century invariably focused on developing 'competencies', skills and attributes that would fit them into various kinds of low or intermediate skill activities in particular geographical situations. Such provision focused predominantly on 'teaching' Africans skills appropriate to predominantly rural agricultural contexts or the routine work of the mine or factory floor.

This chapter has two aims that seek to take the reader from that period of transition in the early twentieth century through to the modern era. The first is to focus on the articulation between notions of 'industrial' education and 'agricultural' education that were expressed in Cape colonial society between 1890 and 1930. It will be argued that what was characterised then as an 'industrial curriculum' or as an 'agricultural curriculum' were not understood to be mutually exclusive by missionaries, colonial administrators and by white colonists and employers. Both curriculum ideas referred essentially to low skill forms of education for Africans to participate in a segregated colonial society in which their roles were defined for them in a largely rural environment. In practice, it will be shown that in poorly-resourced mission outstation primary schools, what might have been termed 'industrial' education invariably took on a decidedly agricultural character. The second aim of the chapter is to demonstrate how this curriculum, conceived in the 1920s, endured into and even beyond the apartheid era.

This chapter will first analyse the origins of industrial education in the Cape Colony. In so doing it will describe the implementation of educational segregation in the Cape Colony, as this was the precursor to steadily widening divergences in the treatment of black and white learners in industrial education settings. This chapter draws explicit attention to the links between industrial education and agricultural education with reference to the narrowing window of opportunity for black learners to obtain any educational opportunities that were more than rural and based on low levels of skill. On the other hand, white learners experienced steadily improving school environments with increased opportunities for genuine industrial training.

This is followed by a discussion of how industrial education was understood among players in the labour market of the Cape colonial economy, as these were powerful interest groups that could influence the evolution of education policy. Finally, this chapter develops an extended analysis of the trajectory of agricultural education for Africans through the periods of missionary schooling and Bantu Education, to homeland schooling and the postapartheid period.

Industrial education and economic and social change in the Cape – 1890 to 1930

The idea of formally providing industrial education to Africans in Southern Africa was first mooted in the mid-1800s. Under Cape Governor Sir George

Grey the notion of a prosperous Christian African peasantry was actively pursued. The aim was to create a settled and industrious peasantry that would work its own land or the land of white farmers and also contribute to social order. This plan was eventually abandoned, for reasons that included ongoing conflict between settlers and Africans over land and cattle on the frontier (Hunt Davis 1969: 220–224).

The later re-emergence of industrial education was observed as follows in a government publication on 'Native' administration:

Industrial training started in 1855 but after a few years almost died out: a revival took place in 1895 and such training is now a feature of Native education in the Cape. (Rogers 1949: 235)

But the industrial education model of the Grey Plan was different to that of the late nineteenth century. First, Grey's idea was to apply industrial forms of education only to a specific group of Africans who were located within a strategic space as a buffer group on the eastern frontier of the Cape Colony. In contrast, by the turn of the century the Cape government was concerned with designing a form of education applicable to all school-going Africans. Second, the later concept of industrial education for Africans was educationally far less ambitious than that of the earlier Grey Plan. It will be agued that it did not present African learners with vocational skills that had real market value, leaving them with only their labour to sell.

Moves to reconceptualise industrial education for Africans found support within the educational, social and economic domains. First, the Cape's Superintendent General of Education was becoming more confident about his capability to exert control over the disparate mission school infrastructure through the 'grants-in-aid' system. Between 1890 and 1905 he managed with considerable success to segregate the mission school system.

Second, in this period, the mission church hegemony over the curriculum was starting to weaken, as the colonial education department began gradually to exert influence over both the kinds of knowledge purveyed in the schools and the standardisation of such prescriptions. For some time yet, literally until the advent of apartheid, the mission churches would continue to retain their dominion over day-to-day school operations in the vast majority of African and coloured schools. Despite this powerful advantage, the churches were sensitive to the evident secularisation underlying colonial government authorities decisions on the nature of the curriculum in African and coloured schools. Even if missionaries subscribed to the colonial curriculum hegemony, they were simultaneously experiencing some disquiet at their loss of total sovereignty over the schools that were still considered to be a powerful resource for attracting and holding converts.

Third, even though the majority of African youth of school-going age were not in school at the turn of the century, there were massive increases in the numbers of African children in school. The demand for access to schooling rose, because education was perceived to be an alternative source of economic security in a time of land dispossession. The curriculum demands were for academic and industrial skills that could provide for successful entry into the labour market with the prospects of obtaining work opportunities other than insecure manual labour. Fourth, the sharper pace at which the Cape economy was operating towards the end of the century, attributed to mining activities in the Witwatersrand, was alleged by white employers to be the cause of shortages of black labour. Lastly, white labour was beginning to express concern over the potential challenge from equally qualified and competitive black workers.

Segregation and the industrial education imperative

In the Cape Colony, debate around 'industrial education' was framed by the assumption that different curricula were appropriate for different racial groups. The actual segregation of schooling according to race provided the institutional framework within which differentiated curricula could be imposed. Once discriminatory provision of school access on the basis of ascribed racial differences and needs was entrenched in the schools, the physical seclusion of race groups in different schools provided the context for the application of different forms of curriculum knowledge (Paterson 1992: 66–82). Therefore, changes in the provision of industrial education to whites must be sketched as background to the main concern of this paper: industrial education for Africans.

The formal segregation of schools after 1890 laid the foundation for radical changes in the schools of the Cape Colony, culminating in the 1905 *Cape School Board Act*, which provided for compulsory schooling for whites only.

Segregation effectively established the context within which children, differentiated on the basis of race, would be provided for unequally both in terms of the material environment of their school and in terms of different curricula. This meant that even though there were 80 789 black and 66 290 white learners in Cape Colony schools in 1904, the proportion of learners as a percentage of the population at school, 11.4 per cent for whites and 4.4 per cent for blacks in the same year, would show increasing disparities thereafter (Paterson 1992: 69–72). By 1920, white children were accorded free education to Standard 6, thereby extending their share of the financial resources of the Cape government. At the same time, in curriculum terms there was also a widening divide. Africans were phased into a 'manual' orientation, or training for 'labour', which left industrial and trade training open to white monopolisation.

The application of manual training of a different kind to white children had for some time been considered advisable by the Cape Superintendent General of Education, Dr Thomas Muir.¹ There were concerns expressed over 'high paid imported men' from other colonies rather than white colonial youths moving into artisanal, mechanical and Civil Service posts (Lowden 1907). But most importantly, industrial education was envisioned as a strategy in the rehabilitation and upliftment of poor white classes, many of whose children were not at school. It was on the rural and urban white indigent that General Hertzog was focusing on in 1911. The *Cape Times* reported on a speech by Hertzog, who in 1919 became the first Nationalist Party Prime Minister, as follows:

If General Hertzog's speech may be taken as an indication that the government intends to extend the facilities for technical education, which will give scope for employment in the skilled labour market of those who are otherwise fated to eke out a miserable and useless existence either as bijwoners or derelicts in the towns, it foreshadows a policy at once more honorable to the ruling race ...²

This education was envisaged as a means of teaching the poorer class of white the 'dignity of labour' as much as it was intended to teach Africans this precept though it will be shown, with different ends in mind.³

The lobby for industrial education for whites brought significant changes in policy. The first appropriations to trade and industrial institutions for whites were made in the 1890s. This funding rapidly rose to exceed the allocation to black institutions. A new class of school, 'Trade Schools for Poor Whites', began receiving funding in 1895. Subsequently, the trade stream for whites was broadened with the introduction of trade classes in connection with ordinary day schools, which began receiving funds from 1905. The combined grants allocated to trade and industrial schools for whites began to rise steeply (Paterson 1992: 71-81,105-109). As early as 1909 the new South African Association of Manual Training Teachers was strong and big enough to convene a conference in Johannesburg, evidence of the speed with which the industrial and manual training was integrated into the curricula of white education institutions. These initiatives were extended also to take in white adults with little or no prior education. For example, the Cape Education Department planned evening classes for white labourers employed by the Railway Department to begin in 1911.⁴

Forms of industrial training accessible to Africans had been part of the mission school tradition since the 1850s and before. But this industrial training was concentrated in only a few mission institutions. The missionary schools were extremely diverse in terms of the quality of their instruction and curriculum. This was the direct consequence of the freedom of the competing missionary societies to strategically allocate resources both so as to maximise conversions and increase membership, and to provide educational opportunities. Nevertheless, a tiered pattern of provision emerged which endured well into the twentieth century. The two tiers of school consisted of: a small number of elite places of learning referred to as 'mission institutions', which offered a broad curriculum of reasonable quality, and a large number of 'outstation' schools, which served the masses of African converts and their children. These were predominantly one-teacher schools, with an average size of about 60 learners, very rudimentary equipment, with many lacking even the most basic of supplies.

In terms of funding, the missionary churches depended on the flow of money from their metropolitan headquarters, but there was not enough to underwrite expansion. So the establishment of the majority of 'outstation' schools depended on grants-in-aid from the Cape Education Department, which were allocated to mission schools on a pound-for-pound basis depending on the local contribution (Paterson 1992: 56–136). Impoverished rural communities struggled to sustain their contribution, leading to privation among teachers and instability of their schools.

The mission societies ensured that the main 'mission institutions', which included Lovedale, Healdtown, Lesseyton and Tigerkloof, were financially secure. Each institution would traditionally have departments for teacher training and training for the priesthood, as well as secondary and high school opportunities for matriculation. There would sometimes be a good quality elementary mission school on the institution campus, which taught learners frequently recruited from among the best pupils in outlying outstation schools. There would also be one or more Industrial Departments where the following skills and trades were taught: carpentry, woodwork, masonry, bricklaying, telegraphy, plastering, leather work and shoe-making, wagonmaking and so on. To this group, a handful of 'industrial schools' or purpose built state-aided schools for teaching Africans technical skills with varying difficulty levels must be added.

The various educational opportunities in the mission institutions catered for a small fraction of the total number of African students in all mission schools. Their influence on the labour market in terms of output of skilled Africans was therefore strictly limited, except perhaps in their own local area. In 1912 in the Cape, those attending this form of mission institution represented less than one percent of the total number of African and coloured students at mission schools (Table 1). Yet it was the more sophisticated and developed curriculum opportunities at these mission institutions that was under attack, because a small cohort of African learners were obtaining skills that gave them a competitive position in the Cape labour market. The skilled version of the 'industrial curriculum' offered in the mission institutions would decline steadily, and the lower grade manual training approach go through a phase of expansion across the majority of ordinary outstation mission schools.

The years between 1890 and 1910 proved critical for mission institutions that had 'industrial schools and departments'. Funding dropped from £6 387 in 1890 to £1 338 in 1910. The long-term decline in the mission institutions and their industrial training capacity is reflected clearly in the decrease in the number of such facilities from 27 to 15 between 1912 and 1935 (See the 'Industrial schools and departments' row in Tables 1 and 2). This trend was in

direct contrast to the rapid increases in white industrial training opportunities.

The majority of the mission schools, which numbered 1 680 in 1912 (Table 1), were ordinary outstation schools operating at elementary (primary) level with progression up to Standard 4. Hardly any learners advanced beyond the elementary level. The Cape Department of Education provided some grant money to a few mission schools for Standard 5 and Standard 6 in 1913, on the understanding that those completing these years would do teacher training (Paterson 1992: 88). In this environment the overwhelming majority of African learners, 99 per cent of all African learners at school in 1912 in the Cape Colony, experienced a form of 'industrial education' characterised by rudimentary forms of manual work and handwork under the tutelage of an assistant teacher.

		Cape	Natal	Transvaal	Orange Free State
Industrial schools	Number	27	5	1	1
and departments	Learners	1 034	±200	27	46
Teacher training	Number	12	3	4	-
institutions	Learners	1 203	72	237	-
High schools	Number	1	-	-	-
	Learners	56	-	-	-
Elementary schools	Number	1 680	232	251	121
	Learners	97 652	18 172	14 954	10 444

 Table 1: The number of educational institutions for Africans in 1912 by territory

Source: Loram 1917: 72

Table 2: Statistics on schools in the Cape Province in 1935

	Number	Enrolment
High schools (offering Std 10)	-	-
Secondary schools (offering Std 8)	8	1 005
Mission schools (offering Std 7)	154	32 559
Boarding schools (offering Std 6)	3	642
Other mission schools (up to Std 5)	1 546	129 337
Industrial schools and departments	15	647
Teacher training	29	5 518

Source: Rogers 1949: 236

Such supervised activities could serve only to habituate the learner to applying him- or herself to sustained labour of a relatively menial kind on the land. Being 'industrious' would merely entail being capable of keeping busy at some task or series of tasks. Accordingly, there would be no need for any specific skilling. Rather, what was envisaged was a programme that induced a general orientation towards labour. This position is clearly articulated in the *Union Handbook for Native Administration* where the purpose of education of Africans in the Transvaal after 1903 was to provide:

... in the first place for the combination of manual training with elementary instruction and, in the second, for the shaping of that elementary instruction so as to equip the Native for a more intelligent comprehension of any industrial work that is set before him. (Rogers 1949: 238)

Colonial attitudes towards industrial education

The nature of the curriculum in mission schools for Africans was the subject of debates among influential groups in white colonial society. These were not exclusively antagonistic to industrial education. Two identifiable groups found no problem with 'industrial' skills for Africans, and the prospect of an influx of skilled African workers on the Colonial labour market. The first group were confident in their own supposed racial superiority which would ensure that blacks remained subordinate participants in the work place irrespective of skill. The second group foresaw that growth in the colonial economy would generate labour demand at such levels that white and black workers would not find themselves in competition.

The first group found its reassurance in the supposed intellectual superiority of whites. From this perspective it was argued that whites would never be challenged by blacks, because the latter were of lower intellect and could not rise to artisanal levels, let alone any skilled positions.⁵ There were other variants of the position that blacks would not challenge whites in the labour market. From some quarters, it was argued that Africans lacked initiative and as a result, would always require white supervision in the workplace.⁶ This was clearly articulated by Dr Roberts of Lovedale before the South African Native Affairs Commission in 1905:

The brown workman would always have to work under a European and therefore there would be no conflict. The cast of mind of the Native is such that he could rarely take charge. His lack of inventiveness and of ingenuity in mechanical work would make him inferior to the European as a trained workman, and at no time would he compete with the European.⁷

The second group had no problem with the injection of technically-trained Africans into the labour market, believing that the growing colonial economy could easily absorb all skilled workers. Member of the Legislative Assembly, George Whitaker, stated that there would be 'plenty of work for all' with the development of the country's economy.⁸ These arguments then were based, less on racist conceptions of African intellect than on a faith in the virility and size of the colonial market.

At the time of the South African Native Affairs Commission of 1903 to 1905, the Cape's Superintendent General of Education, Muir, concurred. He considered that there was little chance of the country being flooded with technically-trained Africans. He was most certainly aware that at least in the short term, the Cape education system did not have the finance or facilities to produce skilled African labour in vast numbers. Given this background, he bluntly argued that white fears of being cut out of work were, 'a little ridiculous in view of the facts.'⁹

This did not prevent the strident expression of strong fears from those who held the opposite view: that African workers could present a challenge to the position of white tradesmen.¹⁰ It was argued that blacks held a decisive advantage through their 'lower standard of living', which would enable them to undercut their white counterparts.¹¹ Whether this position was based on an ethnocentric vision of Africans leading a simple traditional life and requiring minimal access to modern commodities or not, the possible effects were well understood. It was feared that once numbers of skilled Africans entered the job market, market forces could very well lead to changes in wage levels and a lowered standard of living for white tradesmen. Those articulating such an understanding were opposed to any encouragement given to prospective black tradesmen or artisans.¹² At most, they were prepared to contemplate an emasculated form of 'industrial' education, which would produce relatively unskilled black workers who could not threaten the position of technically-trained white artisans.

By the turn of the century, some employers of African labour began to argue strongly for the inclusion of more manual labour in the African schools. This was often combined with a call for further restriction of academic content. In 1905, the Stutterheim Farmers and Fruit Growers Association wanted manual labour taught together with a limit on African exposure to schooling only up to Standard 3. In reference to African education, the word 'industrial' had greater connotations of 'being busy' than of 'being skilled'. Such training was to produce the 'general workman', which the South African Native Affairs Commission members carefully distinguished on apparently racist grounds from the 'skilled artisan'.¹³ Consequently, in the schools any so-called 'industrial education' was restricted to extended manual labour with little academic content.

There were also those who vehemently opposed mission education on the grounds that it made Africans 'unsuitable' for manual labour. Colonists expressed the preference for the 'unspoilt' or 'heathen' black labourers. From this perspective, traditionalist Africans were supposedly more amenable to hard labour. For example the question, 'Does education diminish industry?' was asked in *Christian Express*, implying that schooling in some way reduced the tractability of Africans for work.¹⁴

Those advocating the restriction of access to education of any kind for Africans were appeased by the restriction of mission schooling to low-level labour utilising basic skills. Under these circumstances, Africans would become non-competitive in the skilled sector and 'useful' in the unskilled sectors of the wage labour market. Under such an industrial education regime, the mission schools thus provided a potential instrument for rendering many hitherto uneducated blacks suitably docile and amenable to labour in the mines and on the lands.

The link between 'industrial' education and 'agricultural' education

How then did these debates relate to 'agricultural education'? It should be clear from the foregoing analysis that, what was characterised as the 'industrial' option and as the 'agricultural' option were not understood to be mutually exclusive. Both referred to particularly low-level forms of education that envisaged Africans being trained for participating in a segregated colonial society in which their roles were defined for them.

In the same period, when proponents such as Dr Muir spoke of 'agricultural education'¹⁵ for Africans, they were not referring to any scientific form of agricultural expertise as they did when speaking of white agricultural training.¹⁶ They envisioned an introduction for Africans to the most basic skills for rural life, which would be 'useful' in two very specific ways. Firstly, such training was seen as a useful requisite for life as a labourer on a white farmland. There was also the assumption that Africans should naturally enjoy working land even if it were not their own. Before the South African Native Affairs Commission, John X Merriman expressed this conception clearly while reflecting with apparent incomprehension on the reluctance of Africans to work white farm lands: 'Their business is agriculture ... at present there is a cry for agricultural labour everywhere; why do they not fill that up?'¹⁷

Secondly, agricultural training was strategically bound up with the increasingly rigid apportionment of arable land between white and black in the region. This involved the creation of segregated urban and rural spaces for Africans, such as the rural 'locations' (or villages), 'location commonage' and the 'native territories' under communal land tenure. Here, it was envisaged that Africans could usefully employ basic skills such as ploughing and sowing on the small plots of land they had been allocated by headmen or the chiefs. That these should only be general and rudimentary skills that barely improved on traditional methods, is reflected in the following recommendation by J W Sauer that Africans merely 'be taught intelligently to get the best advantage from ploughing and sowing, and generally a knowledge in agriculture ...²¹⁸ Similarly, proponents of practical agricultural and domestic education at the South African Native Affairs Commission (1905) argued that it should entail such activities as 'spadework' for boys and 'sewing' for girls.¹⁹

Two elements underlay this vision of Africans with 'appropriate' agricultural skills working the land. Firstly, it was partly justified by the racist anthropological stream of thought that categorised Africans as primitive and unsophisticated pastoralists or arable farmers that were naturally tied to the land on a subsistence basis. Secondly, the 'agricultural' option ensured that blacks should not acquire, through education, the agricultural skills or methods that would make them serious competition for white farmers. The missionaries were divided on the extent to which their schooling should be concerned with business and making profit (Hunt Davis 1969; Steinmann 1906; Thompson 1904). In any case, after 1913, there was continual reduction of possibilities that Africans could own any substantial tracts of land outside the designated 'native territories'.²⁰

The curriculum features delineated here coincided with the colonial policy on land ownership, which justified proposals for an extremely rudimentary agricultural education syllabus for Africans. The design of agricultural related subjects for Africans was supportive of the policy of land segregation according to which whites were perceived as progressive, scientific land users²¹ and blacks characterised either as small-scale traditional farmers making marginal use of basic agricultural techniques, or as farm labourers.²²

The discourse of those who wished to provide Africans with the appropriate skills 'to utilise the land', to their 'calling in life', or to their status as traditionalist farmers is clearly recognisable in the evidence before SANAC provided by politicians like J Sauer.²³ With its references to the 'needs' of blacks and to 'appropriate' educational skills, the language bears distinct similarity to the adaptation concept as articulated in the 1920s by the American-influenced C T Loram and others. (Loram 1917; Pells 1938: 130). In this sense, it was deemed necessary to adapt education by reducing its academic and technical content so that it would be suited to the rural circumstances of African people.

Adapted education in Loram's formulation was premised on two assumptions: that whites would continue to rule over Africans, and that Africans were a rural people whose future belonged in the countryside. Africans were therefore to receive an 'education for life' based on manual and agricultural work thereby encouraging small-scale farming and the promise of 'earning a progressive livelihood ... through their own industry and enterprise'.²⁴

The durability of these views is evidenced in concerns expressed by some of those attending the Educational Adaptations in a Changing Society Conference of 1935, that emphasising training in the 'white man's industries, (and) neglecting the indigenous crafts in clay, grass and skin' (Papp 1937: 440) needed to be avoided.

The agricultural curriculum

This chapter has attempted to identify the essential similarity between visions of manual and 'indigenous' agricultural labour as expressed in the Cape. This picture can be elaborated further with reference to curriculum specifications, produced in 1929 by the Cape Education Department, for teachers in 'native primary schools'. What is most significant is the strong focus in the documentation on the supposedly segregated agricultural inclinations and needs of Africans:

For their future prosperity the Native races must look largely to agricultural development. Given improved methods of cultivation ... the fertile native territories of this country could support a much greater population ... The Natives are a conservative people and if teachers can convince their pupils of the advantage of good methods of cultivation they will do much to benefit their race. (Department of Public Education 1929: 272)

In the same document, the time allocations suggested for each subject clearly reveal the emphasis on 'manual and industrial training', which is allocated five out of twenty-five hours per week. The only subject given more time was 'language' with eight hours. 'Arithmetic' was allocated a mere three hours. Signs of the importance given to 'industrial' training were also visible in the expansion of the curriculum by the addition of 'native handwork', 'manual training' and 'gardening' as subjects. These are briefly detailed below.

Teaching 'native handwork' was described as an outlet for creativity, and an opportunity for training observation and memory, hand training and acquiring the habit of 'industry and perseverance'. This curriculum extended from Sub-Standard A to Standard 6. In the lower standards activities included: plaiting of grass; elementary clay modelling; basket making (hats, mats and bags); fashioning tin artefacts; bone or wood carving of 'usable articles (knitting needles, crochet hooks, coat hangers etc.)' and leather work (Department of Public Education 1929: 318–334).

In 'manual training' above Standard 3, boys were expected to take gardening and some other form of manual work. In this instance woodwork included: porridge stick; ornamental stick; plant label; string winder; spinning top; yard measure; model yoke; coat hangers; three legged stool; and wooden salad spoons. However, such activities were limited by the availability of tools.

The 'gardening' course extended over three years from Standard 4 to 6 and included: constitution of the soil; practical use of tools and trenching; crop rotation; manuring; insect pests; soil cultivation for large scale crops such as maize; tree pruning, budding and grafting; and making of roads and drains (Department of Public Education 1929: 272–306).

In addition to general subjects, there were also courses for girls that included: 'needlework' and 'housecraft', to 'raise the natives to a higher stage of civilisation and mental development by improving the homes' and to 'develop vocational work, by giving to girls who have to earn a living valuable training in an important branch of work' (Department of Public Education 1929: 307–317, 347–352).

From this evidence, the agricultural and industrial curriculum forms can be seen to have merged in the elementary mission school curriculum in the Cape Colony. This had perhaps as much to do with curriculum design as with what learning was possible in the surrounds of an ordinary mission school. The common mission outstation school purveyed a form of 'industrial' training that was inevitably 'agricultural' and heavily manual in orientation because most schools were rural and poorly resourced. The education departments recognised that schools did not necessarily have the infrastructure to fulfill the primary school curriculum as documented. The effects of a small rural school environment on how the curriculum was taught is acknowledged in a document on South African Education prepared for the Empire Exhibition in 1936: 'In single-teacher schools, of which there is a large number in each province, this curriculum is generally adapted, and limited to essentials' (Bot 1936: 29). Under these circumstances, the majority of outstation mission primary schools served as acculturating institutions from within defined notions of the role of Africans in the colonial society.

School agriculture: continuity between colonial and apartheid curriculum and practices

There is evidence that the teaching of agriculture at mission schools was implemented on a wide scale in all of the territories comprising the Union by the early 1930s. For example, in the Cape Colony under the Superintendent of Education, Dr Viljoen, the aim of 'giving an agricultural bias to rural primary schools ... proved a great success in Native education' and as a result, between 1922 and 1924 some 700 'native schools' took up 'gardening'. Furthermore, by the mid to late 1930s, agriculture was introduced in Natal as a school subject in all classes and also as a subject of examination in the three teacher's training courses (Huss 1928: 39–40).

The teaching of agriculture in schools also required the development of curriculum materials, and missionaries applied their experience and expertise to meet this need. A succession of textbooks and guides began to appear in different indigenous languages. In 1917, the Revd Father A T Bryant published a brief text on agriculture in Zulu called: '*Imisebenzi Yamapulazi*'. Meanwhile, the Revd Bernard Huss, Principal of St Francis Training College in Marianhill, wrote a book published by Longmans of London called '*Text book in Agriculture*'. In 1923, '*Incwadi Yabalimi*' (Book for Farmers) was published in Xhosa by N A Mazwai, J E East, B Huss and D D T Jabavu (Huss 1928: 41).

Agricultural skilling was considered important enough to be included in the theological curriculum of the South African Native College, later the University of Fort Hare. After the inauguration of the Agricultural Department in 1918 on land given by Lovedale, 'throughout the years, theological students received a one-year course of lectures in elementary agriculture' (Germond 1968: 269). Although the agriculture lecturer doubted the value of this exercise, the insertion of agriculture into the curriculum of African trainees for the priesthood carried considerable value. African churchmen were frequently responsible for supervision of mission schools in their parish, and could therefore advise the elementary teachers in school agriculture activities.

Official documents reflected growing moves towards the standardisation of the curriculum in primary schools throughout the Union. For example, the Cape Education Department manual for the 'native primary school' of 1929 was superseded by the 1936 curriculum for 'native primary schools' which was applied in all the four provinces in the Union. Alongside languages, arithmetic, history, geography, hygiene, physical culture, music and singing (Bot 1936: 29; Department of Public Education 1929: 22–24), the latter document specified 'manual training', which in small rural schools was practised in an agricultural form.

The institutionalisation of agricultural elements in African school curricula and daily practices was of interest not only to the Departments of Education, but also to the Native Affairs Department (NAD). In the years after the promulgation of the 1936 *Native Trust and Land Act*, a policy of 'betterment areas' for the 'development of Bantu agricultural industry' and the stabilisation of agricultural land in the 'tribal' and 'trust' land areas was in the process of evolution (Hobart-Houghton 1956: 26–27). To what extent schools were formally identified by the NAD as a vehicle for shaping agricultural practice in the period is not clear. Nevertheless, the local Native Commissioner could exert direct influence on educational matters in ways that could support the agricultural policy of the NAD. The following incident demonstrates how the agricultural intent and value of schooling was contested between African communities and the colonial departments.

In April 1940, the Moila Reserve Local Council near Zeerust, Transvaal, unanimously resolved to make a grant of £20 each for three main schools in the reserve for the purchase of school books and stationery. These supplies were to be issued to school children whose parents were unable to afford them. This became a matter of some controversy. Despite the fact that the Councillors were 'all satisfied that a hardship exists in schools because some children come to school ill-equipped [with books and stationery]', the Inspector of Native Schools suggested that the amount in question be utilised instead for the purchase of gardening implements (spades) and seeds for school gardens. The Assistant Native Commissioner for Zeerust accordingly refused the book purchase and ordered school gardening implements, on the pretext that there had been insufficient control over the distribution of books in the recent past. But correspondence on the incident clearly reflects his opposition to the use of funding for educative purposes other than habituation to farm and home-based activity. He stated: 'The trouble is that the Moila Reserve Local Council considers that [its] efforts should be directed to fostering a smattering of education on the European model instead of advancing a knowledge of homecraft which would be of some use to the natives'. Councillor Mangope disagreed, stating: 'We appreciate the fact that agriculture is an important matter in our schools, but arrangements for the purchase of implements can be made in the right way without causing another essential service to suffer unnecessarily.²⁵ The prevailing view in the NAD, if the Zeerust Assistance Native Commissioner's views were fairly representative, clearly reveals continuity in colonial policy over the

contribution of agriculture in the education process more than two decades after C T Loram's book on adapted education.

Despite the agricultural intent of the curriculum, this was not necessarily converted into practice in schools for a number of reasons.²⁶ Firstly, the incident in Moila's Reserve recounted above demonstrates that there was a clash of values between the desire for academic schooling among African school communities and attempts to impose practical agricultural work by the authorities.²⁷ Secondly, the conditions in schools themselves would frequently militate against the actual practice of agriculture. Evidence from the Keiskammahoek Rural Survey of 1952 provides an indication of the kinds of barriers to coherent agricultural-based learning activities:

Water ... with rare exceptions [is] entirely absent ... Only about one sixth of the schools have their grounds enclosed with a fence of barbed wire or branches and aloes, and less than one quarter have any type of tree whatsoever in the vicinity ... these are the only ones that are able to arrange for the cultivation of vegetable gardens by the children ... Classroom equipment is entirely deficient ... (Wilson, Kaplan, Maki & Walton 1952: 152–158)

Under these circumstances, teachers frequently opted out of attempting any agricultural or gardening activities with learners, or consigned their charges to desultory labour tasks. This somewhat judgmental view was expressed by an educator teaching gardening under Bantu Education of the period of mission education:

 \dots for a very long time in the past, the period for gardening simply meant in the majority of cases, a period of relaxation for the teacher, the commonest excuse always being that no facilities were provided for the practical side of the subject \dots (Leboho 1957: 41–42)

It is important to bear these conditions in mind, lest the impression be created of a well-entrenched culture of agricultural work in the schools. This point resonates with much of the commentary on school agriculture in the postindependence period in many countries in Africa.

Even though the colonial departments continued to support agricultural elements into the mission school curriculum, during this period the pattern

of employment of Africans in the labour market was changing. While the employment of African males as farm workers on white farms remained constant the most notable changes between 1936 and 1951 were: a significant increase in the proportion of African males finding work opportunities as general labourers in the urban areas; and a corresponding decline in the numbers of African males employed as peasant farmers (Table 3). In this period the justification, originally given in the 1920s, for enforcing an agricultural curriculum in African schools – that of equipping African learners to produce on their own lands for their own communities – was being undone by urbanisation.

	1936	%	1951	%
Peasant farmers	814 282	34.0	437 807	16.2
Other farm workers	621 002	25.9	722 508	26.8
Mining	388 894	16.2	438 029	16.2
General labourers	189 790	7.9	477 947	17.7
Domestic workers	114 502	4.8	145 168	5.4
Not economically occupied	95 649	4.0	155 234	5.8
Other	174 015	7.3	321 188	11.9
Total	2 398 134		2 697 881	

Table 3: Employment of African males older than 15 in the labour market

Source: Hurwitz 1964: 44, 45, 77-78

Under threat of African urbanisation, after 1948 the National Party implemented its policy of Bantu Education. Under Bantu Education, significant growth in enrolments took place. Enrolments increased from 882 700 in 1953 to 1 898 600 in 1965; in effect producing a doubling of the school population within one decade. As a result, primary school enrolments increased to 49 per cent and 78.8 per cent of the population of children aged 4 to 14 between 1960 and 1970 (Unterhalter 1991: 39).

There were two critical characteristics of Bantu Education of relevance to this account of the agricultural component in the African school curriculum. First, the massive enrolment increases observed were restricted to the lower and higher primary school levels (Sub-Standard A to Standard 5) to the extent that even in the mid-1960s, 96.6 per cent of all learners at school were located

in the primary phases. This meant that African learners would only be exposed to rudimentary skills in the agricultural domain.

Second, despite the sharp enrolment increase achieved, expenditure on African schooling did not rise proportionately, contributing to a decrease in expenditure per pupil from R17.08 in 1953 to R12.70 in 1965 (Unterhalter 1991: 37–48). Such a growth path could only be sustained through raising pupil-teacher ratios and implementing double sessions, where two different sets of learners and educators used the same school building at different times of the day. This inevitably produced degradation in school quality.

It was in these conditions that the Bantu Education curriculum gave renewed emphasis to agricultural experience for learners as 'gardening' in the school syllabus (Nutt 1957: 75–88). The Department of Bantu Education was able to implement agriculturally-oriented curricula more efficiently than the disparate mission schools had hitherto been able to. In 1957, a 'garden master' described the intent in the Department to implement gardening:

... with such a detailed syllabus and garden tools and seeds coming from the Department at such speed and in such volume, coupled with the strictness of the Inspectorate in seeing to it that funds are not expended for nothing. (Leboho 1957: 41–42)

Agricultural schooling in the homelands

The focus of this chapter on the relationship between industrial and agricultural education has necessarily focused on the primary school curriculum. This reflects the fact that the overwhelming majority of African learners were only exposed to primary education until the 1970s. However, the situation changed when the opportunities for African learners to continue their studies to high school opened up in the South African bantustans. The process of territorial segregation begun in 1913 culminated in the grand apartheid homeland system with ten 'independent' and 'self-governing' territories proclaimed between 1963 and 1981. The so-called 'homelands' were territories designated to each of the different ethnic communities in South Africa as part of apartheid separate development.

As a result of official policy to develop the homeland education systems, thereby forestalling urban drift, between 1960 and 1987, the proportion of African

primary school enrolments in the homelands in relation to all African schools in South Africa increased from 47.7 per cent to 70.9 per cent. The overwhelming majority of homeland students were registered in the primary school. Only 3 per cent of learners who enrolled in Standard 1 in 1965 reached Standard 10 a decade later, and the enrolment of pupils in the senior secondary school phase (Standard 9 to Standard 10) did not exceed one per cent of total enrolments until after 1975 (Unterhalter 1991: 41–42). Thereafter, enrolments grew rapidly into the 1980s as the apartheid government attempted, under political pressure, to expand access to high school opportunities in the homelands.

This raises the question as to what extent the curriculum in the homeland schools reflected an agricultural orientation, as high school education boomed in the late 1970s and 1980s. Paterson and Arends recently conducted an analysis of the subject 'agricultural science', which is part of the South African Senior Certificate Examination (SASCE). The SASCE is the major school-leaving examination for South African learners at Standard 10 (now Grade 12) level. It provides an important view of the relative importance of agricultural subjects among prospective school leavers. A significant number of learners still choose to take agricultural science as one of their compulsory subjects. In the SASCE of 2001, 93 905 or 19.9 per cent of a total number of 471 821 candidates entered the agricultural science examination, and 58 481 or 21.1 per cent of 276 470 passed agricultural science. These figures show that a significant proportion of all learners reaching Grade 12 elect to take agricultural science. What is striking about the set of schools that currently offer agricultural science to Grade 12 is their distribution, which is overwhelmingly in the former apartheid homelands (Table 4). Fully 82 per cent of all schools where agricultural science was taught in 2001 are located on land formerly designated as homeland territory.

What this means is that the distribution of opportunities to enrol for agricultural science in Grade 12 is uneven. It is a subject that is most commonly offered in former apartheid homeland system schools, which, years after the dissolution of the homelands, are still predominantly attended by African learners. This suggests that there is a remarkable durability in the shape and distribution of curriculum 'choice' within South African rural schools. It would seem that educational structures such as school location and the distribution of educator skills have also conspired to sustain agricultural science as a subject to be taught in African schools.

Province	Total number of schools offering agricultural science	Schools located outside homelands	Schools located inside former homelands	Percentage in the former homelands
Eastern Cape	581	72	509	88
Free State	66	48	18	27
Gauteng	28	28	0	-
KwaZulu-Natal	368	47	321	87
Limpopo	1 040	71	968	93
Mpumalanga	227	100	127	56
Northern Cape	13	13	0	-
North-West	170	31	139	82
Western Cape	34	34	0	-
Total	2 527	444	2 082	82

Table 4: Distribution of schools offering agricultural science at the SASCE by location inside or outside of the former homelands, 2001

Source: Paterson & Arends 2002: 5

Furthermore, out of the 444 schools offering agricultural science that were not located in the former homelands (Table 4), half of these are schools, or 223, were formerly administered by the Department of Education and Training (DET), the education department responsible for administering the education of Africans who were resident outside the homelands in 'white' South Africa under apartheid. This means that, in 2001, of the total number of schools that offered agricultural science to Grade 12 in South Africa, 91 per cent were schools that were formerly designated for Africans under apartheid.

The results of this analysis of the spatial location of South African high schools that offered agricultural science to Grade 12 in the year 2001 show that agricultural curricula were well entrenched in the homelands education systems, and furthermore that the pattern of provision is still visible long after the dissolution of apartheid. This shows that there was continuity in curriculum content between the primary and high school phases. The allocation of agricultural elements in the primary school curriculum from the 1930s to the 1960s was extended by the designers of the curricula for homeland high schools in the 1970s and 1980s. Based on this evidence it appears that the homelands system sustained the implementation of

agricultural forms of education among black South Africans at school. In practice, however, agricultural curriculum components at the primary and high school levels have escaped the subversion of their original purpose.

High school agricultural science as a subject was originally intended to service the extension and civil service requirements of the homelands. In the contemporary period, the pedagogical approach of teachers of agricultural science in the majority of high schools is based on teacher-dominant 'chalk and talk' methods (Njobe 2001). Further, the subject is characterised by limited time allocations for practical experimentation and an overwhelmingly theoretical approach (Mamabolo 1997). As has been observed, the subject is selected by a large percentage of school leaving candidates, but is acknowledged to be a soft option, which students take in order to obtain a school leaving certificate, without the intention to work on the land.

The place of agricultural curriculum forms in South African education is a highly emotive one. This is because 'agriculture' or 'gardening' activities undertaken by African pupils are associated with impoverished curricula under colonialism and apartheid. Even as the apartheid authorities were determinedly advocating agricultural forms of learning for Africans in the homelands from the 1960s onwards, these efforts were undermined by keen popular awareness of the political and economic implications of such curricula.

At the same time, in newly independent Africa, agriculturally-based rural school curricula were promoted as synergistic with national development programmes and socialist political and economic ideals. Yet even these plans for agriculturally driven rural development in a sympathetic political climate failed to mature.

Clearly practical agricultural, and industrial, activities represent an enduring paradox for curriculum policy-makers and rural communities alike. This can be expressed in the following two conflicting perceptions:

... on the one hand education is perceived as failing to contribute to the satisfaction of the local economic needs of the community, and on the other as failing to provide access to the higher status and knowledge that would enable young people to move out of the rural situation into a world of greater opportunities. (Hartshorne 1989: 6)

Conclusion

The period of segregation in the Cape Colony at the turn of the twentieth century enabled the implementation of a separate and different curriculum for Africans: a form of industrial education 'soft' on technical skills and inclined to manual labour. The strictly labour-orientated nature of vocational training for Africans could not equip them with the appropriate repertoire of skills to compete with whites as trained tradesmen or artisans. Accordingly, Africans would be taught the manual skills appropriate to their colonial agricultural context. Such training was calculated to improve the 'industriousness' or work capacity of Africans rather than to give them access to appropriate technical skills. This had as much to do with deliberate curriculum design as with the way in which the material circumstances of most ordinary mission schools constrained learning and teaching opportunities. The common mission outstation school purveyed a form of 'industrial' training that was inevitably 'agricultural' and heavily manual in orientation because most schools were rural and poorly resourced. Under these circumstances, the majority of outstation mission primary schools served as acculturating institutions, informed by a circumscribed notion of the role of Africans in the colonial society.

The unique contribution of this chapter lies in its historical approach to the problem of industrial education. This analysis of industrial education in the colonial context has drawn attention to how important it is to understand the underlying implications for student learning that are implicit in low skills curricula. It has shown how under circumstances of material deprivation, whether this is the consequence of deliberate policy or of neglect, it is extremely difficult for an 'industrial' curriculum to escape operating largely as a mechanism for the inculcation of attitudinal and value orientations. Also, it has exposed how apparently different concepts of the curriculum implied in references to 'agricultural' or industrial education may be almost indistinguishable when implemented within a low skills framework.

This chapter has highlighted the importance of analysing how the context of use determines the meaning of the term 'industrial education'. It has shown how, in the colonial environment, 'industrial' education could appear to be simultaneously under attack from, and supported by, the same dominant social group in the Cape Colony. This was because the same term was used to describe the application of industrial education in two very different institutional environments, namely the flagship mission institutions and the ordinary outstation mission schools.

Two further observations are evident from this account. First, industrial curricula are dependent to a greater or lesser extent on their perceived value among the student populations and social groups to which they are made accessible. The future of the agricultural curriculum in South African schools will depend on the extent to which such curricula are perceived by students, parents and teachers to be consonant with their needs, and by equal measure on the extent to which such curricula are perceived by the architects of South Africa national development to be consonant with sustainable social and economic development strategies.

Second, industrial education curricula can, over time, become leached of practical content and contribute to knowledge transfer purely in the theoretical domain. The irony here being that such elements in the curriculum, such as agricultural education subjects, if presented without reference to practice will make an insignificant contribution towards sustainable agriculture and rural development.

Notes

- Cape Colony (1905) Report of South African Native Affairs Commission 1903 to 1905 (5 Vols) Minutes of evidence with written replies to questions and supplementary memoranda Cape Town (Hereafter SANAC). SANAC Vol 2 Evidence of Muir, T: p 154 [1876–1877].
- 2 Labour and Education *Cape Times* 12/8/1911.
- 3 Poor Whites The Journal 26/7/1906; Industrial Schools Cape Times 25/6/1906.
- 4 Cape Archives. PAE Cape Provincial Administration Education 227 E13 Memorandum nd.
- ⁵ 'He has not got the brain that the white man has, nor the master mind.' SANAC Vol 2 Evidence of Strachan, D: p 1131 [15512]. The intellectual capabilities of Africans was a core point of discussion in this period. This broadened to include a conceptualisation of so-called 'native mentality' as expressed in the work of Dudley Kidd and contemporaries (Dubow 1989: 16–22).
- 6 SANAC Vol 5 Appendix D Written replies to Circular Questions. Respondent Hammersley-Heenan, R H: p 43.

- 7 SANAC Vol 2 Evidence of Roberts, A W: 804 [11036]; SANAC Vol 2 Evidence of Ely, F H: p 656 [8964].
- 8 SANAC Vol 2 Evidence of Whitaker, G: p 608 [8391].
- 9 SANAC Vol 2 Evidence of Muir, T SGE: p 154 [1874].
- SANAC Vol 5 Appendix D Written replies to Circular Questions. Respondent Tillard, R RM Fort Beaufort: p 93; SANAC Vol 2 Evidence of Garstin, FCRM: p 877 [12177]; SANAC Vol 2 Evidence of Harper, Revd J: p 707 [9661]; Native Education *Cape Mercury* 2/4/1906.
- 11 SANAC Vol 2 Question put by Commission member Hamilton: p 60 [8388], SANAC Vol 2 Evidence of Whitaker, G MLA: p 604 [8344].
- 12 Some were opposed to the industrial institutions believing that the products of students, if sold on the market would adversely affect trade. SANAC Vol 2 Evidence of Ely, FH: p 655 [8960], SANAC Vol 5 Appendix D Written replies to Circular Questions. Respondent Barrett, Revd E J: p 4.
- 13 SANAC Vol 5 Appendix D Written replies to Circular Questions. Respondent Stutterheim Farmers and Fruit Growers Association: 92, SANAC Vol 2: p 169 [2000–01].
- 14 Does education diminish industry? Christian Express 1/4/1887: p 61-65.
- 15 The common idea was to have students spend time gardening on small plots of land at the schools. Muir refers to the fact that most school properties extended to one morgen, but this was probably for the teacher's garden lot. SANAC Vol 2 Evidence of Muir, T SGE : p 57 [1898].
- 16 SANAC Vol 2 Evidence of Sauer, J W MLA: p 915 [45004].
- 17 SANAC Vol 2 Evidence of Merriman, J X : p 396 [5181]. Similarly, Dr Jane Waterston argued that it was wrong to 'apply education of an old civilisation to Red Kaffirs'. SANAC Vol 2: p 237 [2918].
- 18 SANAC Vol 2 Evidence of Sauer, J W MLA: p 915 [45005]; SANAC Vol 5 Appendix D Written replies to Circular Questions. Respondent Ellis, W R INL East London: p 32.
- 19 SANAC Vol 2 Evidence of Ely, F H: p 659 [9017-20]; SANAC Vol 2 Evidence of Kawa, Revd P: p 615 [8512].
- 20 The size and extent of all African farms in 'white' areas was carefully monitored by the SANAC Commission. See: SANAC Vol 2: p 932 [13026–33], p 770 [10540–47]. After 1913, it became difficult for Africans to rent, purchase, or maintain land holdings outside of areas designated in that year.
- 21 By the mid-1890s, there were two agricultural schools for whites at Stellenbosch and at Somerset East. Interest in supporting agricultural occupations in the white population resulted in the commissioning of two Select Committees on Agricultural

Schools (1894) and on Technical Education in Agriculture (1895). The scientific curriculum included: chemistry, physics, botany, anatomy and physiology of farm animals, breeding, surveying, cropping, viticulture, diseases of plants and animals, and carpentry and woodwork, over two years. Keen to eradicate popular fallacies about agricultural training – at least for the white population – that anyone however devoid of intellect could become a farmer, and that manual work is the practical work of the farmer (Wallace 1896: 497–502).

- 22 The missions did also have problems with this form of education; they were concerned about the connections with business and making profit, and about what this form of education had to do with missionary activity (Thompson 1904; Steinmann 1906).
- 23 SANAC Vol 2 Evidence of Sauer, J W: p 915 [45004].
- 24 Adapted education admitted two different though not contradictory interpretations, in terms of which Africans would not compete with Europeans and serve their own communities, or directly serve European interests largely as workers on white-owned land (Hunt Davis 1984: 114).
- 25 'Transvaal Archives' NTS (Naturelle Sake) Vol 8537 37/360/G 'Education Moila Reserve Local Council' Assistant Native Commissioner, Zeerust, to SNA Pretoria 27 September 1940; Assistant Native Commissioner, Zeerust, to SNA Pretoria 21 March 1941; Extracts from minutes of a meeting of the Moila Reserve Local Council held on 15 September 1940. I would like to thank James Drummond, from the University of the North West for showing me this evidence, which raises important questions regarding the relationship between agricultural education and models of rural development.
- 26 The literature shows that whatever curriculum colonial governments asserted would not necessarily be acted out as intended. Many Africans still desired the classic academic or literary curriculum (see, for example, Foster 1965).
- 27 In an earlier period, Kallaway provides an account of how resistance by Africans was partly responsible for the foundering of a government industrial school in Natal between 1886 and 1892 (Kallaway 1987: 17–33).

4 High skills: the concept and its application to South Africa

David N Ashton

Introduction

In order to understand the concept of the high skills economy we have to examine its origins in the debates that took place in the older industrial economies about the most appropriate way in which they should respond to the consequences of globalisation. The high skills route was seen as one way of dealing with the loss of low skill jobs resulting from the flight of capital to low labour cost countries. The low skilled jobs which had formed the backbone of the old economy were now seen negatively as something to be got rid of and avoided.

The problem facing South Africa is very different to that found in the older industrial countries. Rather than being faced with a loss of low skilled jobs, the situation in the South African economy is one of no jobs for a substantial proportion of the population. We therefore need to be careful when applying concepts derived from outside the South African experience. This is especially the case with the concept of low skills, which also has negative connotations in South Africa but for very different reasons, namely the racial connotations created by the old apartheid regime.

We therefore argue for the need to re-visit the high skills debate and reexamine the concept of low skills especially in the light of the positive use of low skills work by the new industrial countries. There it was used to solve problems of unemployment and poverty as a precursor to a move up the value-chain to the creation of higher skilled jobs. Finally, we examine the possible role for the government in South Africa to adopt a similar strategy, namely to initiate a low skills route to full employment and facilitate a subsequent move into a high skills society.
The origins of the high skills concept

Until the Second World War, the USA, European and other Anglo-Saxon economies such as Australia and New Zealand had dominated world markets and had been successful in exporting all their manufactured goods, whether this was high value-added products such as sophisticated engineering products or low value-added products such as clothes and footwear. These were exported not only to each other, but also to the developing world.

This situation changed after the Second World War as the old European colonial powers lost their empires and their privileged access to colonial markets. Moreover, the new independent governments of countries such as Ghana, Singapore, Malaysia and South Korea were desperate to develop their own industries as a means of taking their citizens out of unemployment and poverty.1 For many of these countries, such as Singapore, with no material or mineral resources, the only source of competitive advantage was their cheap labour. It therefore made sense for them to develop those industries that could make good use of low-cost, relatively unskilled labour, using techniques of mass production. These Fordist systems of production were used to produce textiles, footwear and plastic goods, which enabled these countries to compete in world markets and undercut the manufacturers based in the older industrial nations. These second wave industrialisers, for example Hong Kong, Singapore, South Korea and Taiwan, were particularly successful in their use of this strategy. They were soon to be followed by a third wave of countries such as Malaysia, Indonesia and, more recently, China.

It was this process of industrialisation in the developing world that led to the destruction of traditional industries in most of the older industrial countries, sometimes referred to as a process of de-industrialisation. As companies could no longer compete they went out of business and/or transferred production to the low wage economies. Some of the older industrial countries such as the UK and USA were more exposed to this threat than others such as Germany and Switzerland. This is because the UK relied more extensively on these labour-intensive traditional industries whereas Germany had, after the Second World War, sought to compete in industries with a higher skill content, producing quality products for specialised rather than mass markets. Companies in these latter countries found it harder to transfer production as

they were more dependent on supplies of highly skilled labour, at that stage only available in the older industrial societies.

Faced with the loss of millions of jobs and the associated problems of unemployment there was an understandable fear in the 1970s and 1980s as to where the new jobs necessary to replace them would come from. If the older economies were to try and continue to compete in these traditional industries they would have to push wage levels down to those paid in the low labour cost countries or provide huge subsidies to the companies, neither course of action being seen as politically acceptable in the long run. The other course of action would be to develop new jobs in those areas where the new industrial countries could not compete, namely in the higher value-added, more knowledge-intensive industries. Moreover, these industries could afford to pay higher wages, partly because of the higher productivity of their workers and partly because of the higher prices they could charge for their products.

We can see all these features in the concept of the high skills society used by Green and Sakamoto, who define it as follows:

A high skills economy is defined as an economy with a wide distribution of workforce skills where these are fully utilised to achieve high productivity across a wide range of sectors, at the same time producing high wage rates and relative income equality. A high level of workforce co-operation supported by civic trust and social capital is seen as an important part of the model. (Green & Sakamoto 2001: 64)

The emergence of the high skills economy

This high skills argument was given more political weight as a result of the phenomenal growth of the new technology industries in the 1980s and 1990s in the USA. Having struggled with high levels of unemployment, the 'problem' of the loss of traditional jobs was resolved in the USA by the growth of new industries in Silicon Valley. These Information Technology (IT) based industries provided a new source of investment while the application of IT in other industries also improved their productivity. The resultant increase in economic growth in the USA has been well documented.² At a fairly superficial level it appeared that the USA had resolved the problem through

letting 'market forces' operate freely and these had provided the new highly skilled, well-paid jobs in the new industries. Some of the old low skilled jobs had been replaced by highly skilled, highly paid jobs. This then was seen as the answer for countries such as Britain. All they had to do was encourage 'market forces' to generate the new jobs in the knowledge economy and this would result in the creation of a high skills economy.

The start of the academic debate

It is in this context that academics started to enter the debate. Among the first were Finegold and Soskice (1988). They argued, in the context of the UK economy, that there was nothing inevitable about the transition from a low skilled to a high skilled economy, indeed for them, there was a danger that the UK would become locked in a low skills equilibrium. Because the UK had always had traditional low skills industries and continued to have many low skilled jobs in areas of the economy that were not traded internationally, the labour market institutions and expectations of employers and employees were geared to those jobs. The education and training system produced relatively unskilled workers, which was all that employers required for such industries. Because there were few skilled jobs available, workers did not undertake extensive training, as there was no pay-off in the labour market. Because employers were faced with a low skilled labour force there was no incentive for them to enter higher value-added markets, as the skills for these forms of production were not available in the labour force. Thus, we complete the circle and employers continued with their low skilled strategy, a self-sustaining low skills equilibrium.

There are a number of assumptions built into this concept. First that it is possible for the individuals and employers to behave perfectly rationally but sustain a low skills equilibrium in which they became trapped. Second, following the work of Streeck (1989), it is assumed that employers' behaviour is geared to their own short-term needs, unless there are important external institutional constraints which oblige them to act in terms of their (and the societies') long-term interest. Third, to move out of this equilibrium requires new incentives among the institutions and actors to secure a commitment by employers to a high skills strategy. In policy terms it meant that countries such as the UK were in danger of becoming trapped into a low skills equilibrium. This was something that should be avoided as it meant a substantial proportion of the population would be locked into low skilled, low wage employment. In this way the concept of low skills acquired negative connotations. The important policy concern was to find ways to move the economy into a high skills equilibrium. This message was later reinforced by the work of Crouch, Finegold and Sako (1999) who argued that moves by the USA and Britain to de-regulate labour markets and provide more freedom for employers would result in sustaining the low skills equilibrium.

One of the ways in which a move out of this low skills equilibrium could be achieved, would be for employers to change their product market strategy and move into higher value-added forms of production. Here the example usually cited is Germany where the employers compete in terms of what is sometimes referred to as diversified quality production, which requires a high level of skill from their employees to deliver quality products geared closely to customers' requirements. In Germany this concern with the production of high quality, high value-added goods is seen to stem from the impact of a number of institutional conditions which constrain employers to take a longterm view of their business strategy. These include a form of company finance derived from cross-holdings and house banks which place pressure on companies to secure the long-term survival of the organisation. In addition, industrial relations institutions, such as Works Councils are also important in ensuring consultation on staff reductions, thereby enforcing a long-term view on employers. In the field of training, employers and unions are bound together to enforce the apprenticeship system, which ensures high levels of skill formation and a sharing of the costs of training.

All this is contrasted with the UK where finance from the City of London linked to shareholder capitalism places emphasis primarily on the pursuit of short-term profit maximisation. In addition Crouch *et al.* (1999) see government deregulation of the labour market in both Britain and the USA as providing greater freedom for employers in their decision-making. In the labour markets this means they have more freedom to hire and fire at will and in the field of training they are free to concentrate on training only for their immediate needs. These and other recent changes, therefore, help sustain an orientation to low-cost forms of production for which they employ low skilled labour.

Another approach to the concept of high skills was developed by Ashton and Green (1996). Ashton, Green, James and Sung (1999) used the comparative method to reveal that some of the countries which had started as low labour cost, low skilled economies were already moving rapidly in the direction of a high skills economy. In the 1980s and 1990s the four Asian Tigers, Hong Kong, Singapore, Taiwan and South Korea, were moving away from a reliance on labour intensive industries and replacing these with higher value-added, high skilled forms of employment. The high skills route was not just a feature of the older economies; some of the newer industrial economies were already moving in that direction.

This approach, rather than imposing an abstract model of high skills or low skills equilibrium, seeks to identify the different routes societies have taken and are taking to secure high levels of skill formation among the labour force. This approach avoids the problems created by positing an opposition between a high skills and low skills equilibrium, but rather views the route to high skills as one of a balance between low skills and high skills employment with the emphasis more on the distributional aspect of the problem, namely the opportunities work provides for skill development and a more egalitarian distribution of income. It does not envisage a wholesale movement out of low skills work, but rather a shift in the balance of employment opportunities away from low skilled and in the direction of more high skilled employment.

With its origins in sociology and institutional economics, this approach seeks to understand the conditions that generate and sustain high levels of skill formation. It draws more on Marx and Weber than neo-classical economics. The emphasis is therefore more centrally on the struggles and historical forces that are responsible for creating different levels of skill formation in society. It assumes that high skill levels can be achieved in different ways (routes) but that it involves struggles and (class) conflicts between groups. From this it follows that the state and political processes play a central role in determining the route taken and that the level of skill formation is the outcome of a political struggle. The policy options focus more on bringing about shifts in the balance of political power that create the opportunity for introducing the change in incentives for employers and employees highlighted by the equilibrium approach.

Brown, Green and Lauder (2001) have identified a series of different routes, each of which has different characteristics.

- High skilled elites and skill polarisation (UK and USA). These are societies in which there are highly skilled elites: in the UK these are found in the aerospace, financial services and creative arts and media industries. However, these co-exist with a large group of lower skilled workers who have been suffering a relative decline in income over the last two decades. These societies have experienced a 'hollowing out of the middle' with regard to the distribution of skills.
- Countries with a highly skilled elite, a wide distribution of intermediate level skills and relative income equality (Germany).
- Countries with a wide distribution of high and intermediate skills, relative income equality but also high levels of labour intensive production and co-operation (Japan).
- Countries with a rapid but uneven skills formation but high labour intensity and discipline (Singapore).

These two separate but overlapping concepts of the high skills society, while pointing to different policy prescriptions, do have one important assumption in common. They both assume that low skills and low skilled jobs are something to be avoided. In the case of the equilibrium approach there is a danger of becoming trapped or locked into the low skills equilibrium. In the case of the high skilled route approach the emphasis is on minimising low skilled employment and moving the economy in the direction of higher skilled work. However, both attach negative connotations to low-paid, low skilled work.

Policy issues

The advantage of the high skills thesis, in whichever variant, in the Anglo-Saxon world was that it was all things to all people. It appeared to provide a win-win situation for all the vested interests in the society. Politicians, therefore, could use it without fear of alienating significant constituents. For business, the promise of a high skills society offers the prospect of more economic growth, new markets with higher returns to capital. For the middle and working classes, it offers the prospect of more high skilled, better-paid jobs. For the unions, it offers the prospect of a more egalitarian society. This after all had been the experience of Germany and Japan.

Given a general consensus on this agenda the area of debate was centred around whether the market alone could deliver the high skills society. The right-wing political groups, representing the interests of business, assumed that only the free operation of market forces could deliver this goal, as has been the case in the USA. The left-wing groups, representing the unions and employees, argued that more government action was needed to push the economy in the direction of a higher skills society and that left to its own devices the market would only create a more polarised society. This would result in a small elite of highly skilled people and a large mass of low skilled, low-paid employees leading to increasing inequalities in the distribution of wealth (the USA and UK experience).

While different groups struggle over what are the mechanisms appropriate to ensure the delivery of the high skills society, the reality has been somewhat different. In both the UK and USA there has been an expansion of higher paid, high skilled jobs. However, low skilled jobs have also increased leading to a polarisation in the labour market (Green & Sakamoto 2001). What has happened is that the transfer of capital for low-cost, labour-intensive production, has also taken away many skilled manual jobs as well, creating a hollowing out of the middle of the labour market. In these countries the high skills society is a still a long way off.

The South African experience

The political and policy context is very different in South Africa. During the 1970s and 1980s the South African economy was in many respects marginalised from the process of globalisation. It continued to benefit from its rich natural resources, but these were used to sustain an economy with highly-institutionalised racial divisions. While the new industrial economies were developing strategies to catch up with the older industrial nations, attracting foreign capital, transferring the technology or developing their own capital and technical expertise to permit them to compete effectively in world markets, the South African government was preoccupied with an inward-looking strategy. Its policy of apartheid was designed to use the economy to maintain the political and economic dominance of the white community. In the labour force the law was used to reinforce and exacerbate the segmentation of the labour market.

This meant that low skilled jobs and low skilled employment acquired connotations that were virtually unique to South Africa. High skilled jobs were the preserve of the whites. Racial segmentation became a defining criteria of the labour market in South Africa. There was no strategy to expand these jobs to create more highly skilled and highly-paid jobs, accessible through meritocratic criteria, as there was in the Anglo-Saxon countries. Therefore in the South African context low-paid unskilled work was not merely something to be avoided, it was equated with political subjugation. Essentially, the combination of racial segmentation in the labour market and racial discrimination in education and training produced a racially-defined low skills model. There is little wonder then that following the collapse of apartheid, the concept of the high skills society offered the prospects of a new start for all. The whites would maintain their highly paid jobs and new jobs would be created for the blacks previously largely confined to low skilled jobs.

At one level the high skills thesis did make a good fit in South Africa. As the economy moved away from the inward-looking import substitution policy of the apartheid regime to a more outward-looking, export-oriented policy of full participation in the global markets, the high skills thesis seemed appropriate. However, the economy has never generated sufficient jobs to create the full employment which characterised the other economies we have discussed. Levels of unemployment in South Africa have been much higher than anything experienced in the West or the developing countries discussed here. For example in February 2000, the expanded unemployment rate for the labour force as a whole was 35.5 per cent and for Africans 41.2 per cent (Statistics South Africa, 2001: 8). More importantly, over the second half of the 1990s, against this background of mass unemployment, the economy failed to generate enough jobs to match the growth in the number of new entrants, so the situation got worse. As Bird (2002) highlighted, while the economy generated 1.1 million new jobs over the period 1994 to 1999, 3.1 million people entered the labour market.³

In view of these realities of the labour market, it is now appropriate to reexamine some of the assumptions contained in the high skills concept. More especially we need to re-examine the negative connotations attached to lowpaid unskilled work and the exclusive concentration on the need to generate high skilled jobs. With such high levels of unemployment and poverty it is time to revisit the low skills strategy. I start this task by exploring how other countries have used a low skills strategy to tackle problems of unemployment and poverty.

Revisiting the experience of the Tiger economies

A re-examination of the experience of the Tiger economies tells us that in the early phases of their industrialisation the Asian Tigers adopted a very positive attitude toward the creation of semi-skilled and unskilled jobs. We use the experience of Singapore to illustrate the positive aspects of this low skills strategy.

Following the Second World War and political independence, Singapore initially joined the Malaysian confederation, but only for a short period before it was expelled. The government of Lee Kuan Yew then faced a major predicament. Previously it had seen its economic interests tied to those of Malaysia as it acted as the main entreport for the peninsular. Outside the Malaysian federation it was without its natural hinterland. It had no natural resources, little indigenous industry and skills and was then faced with the prospects of the British government closing down its naval base, which accounted for 13 per cent of Singaporean GDP. With existing levels of unemployment at over 14 per cent and a very low standard of living and acute racial divisions, the country faced a crisis (Ashton *et al.* 1999).⁴

Jobs were required to tackle the problem of unemployment and poverty, but these had to be jobs that would be sustainable in producing goods that found a niche in world markets. It was against this background that Prime Minister Lee Kuan Yew went to London to plead with the UK Prime Minister, Harold Wilson, for the British to continue with their naval base in Singapore, as a means of sustaining employment levels. During that visit he was also asked by Lord Sieff, who ran one of the largest department stores in the UK (Marks and Spencer) for help in persuading the Egyptian leader Gamel Adbel Nasser to make peace with Israel. Han, Fernandez and Tan (1998) record the subsequent conversation as follows:

... Sieff, who might have felt obliged to do something in return, said to Lee, 'Look, if you need to create jobs, why don't you make fishhooks? It takes a lot of labour and skill ..., and it's high

value-added.' Nasser did not make peace with Israel, but a Norwegian company, Mustaad & Co., did set up shop in Singapore to make fishhooks, and employed a few hundred workers. It might seem somewhat comical now, 29 years later, that a well meaning businessman in London saw the making of fishhooks as a lifeline for the struggling Singapore economy. But it was no laughing matter then. At stake was nothing less than the survival of a fledgling reluctant nation with no natural resources which had, three years before, been booted out of Malaysia. Fishhooks, motorcar tyres, cameras – what did it matter then, as long as it provided jobs? (Han, Fernandez & Tan, 1998: 107–8)

What was at stake for Lee Kuan Yew was his people's survival, their livelihood and to secure that, he wanted jobs: any jobs, providing they delivered an income which would help take them out of poverty.

The strategy subsequently developed by Lee Kuan Yew and his government was to attract foreign corporations who brought the necessary capital and technological know-how. In return, the government of Singapore promised them an efficient system of administration, a business-friendly environment and a cheap, disciplined and increasingly literate labour force. There were initial struggles between Lee Kuan Yew's Peoples' Democratic Party and the communists, which the former won and from which a stable political and industrial relations system emerged. The strategy worked, numerous foreign corporations sited their production plants in Singapore, and by the 1970s there was full employment.

The use of low-cost labour as a source of competitive advantage was not confined to Singapore. The governments of Taiwan and South Korea both adopted the same strategy although they implemented it in a different way.

In Taiwan they relied more on indigenous small businesses to grow with some assistance from larger foreign firms. In South Korea the government used its control over resources to support the establishment of massive Korean conglomerates, the *chaebol*, which spearheaded economic growth, focusing initially on low value-added forms of production. These were all countries that used their cheap labour as a positive asset to provide them with competitive advantages in world markets.

The very success of this competitive strategy meant that by the 1970s all three faced a similar dilemma. Again we use the case of Singapore to illustrate their response. As full employment was achieved, the labour market tightened and labour became a scarce commodity. The result was pressure from within the labour market to push up wages. Employers were having to bid against each other for these scarce resources. The government now faced a serious problem. Other countries in the region were now following the example of these Asian Tigers. Malaysia had witnessed the success of Singapore, as had Indonesia and Thailand. They were now offering cheap labour to foreign capital, and that labour was much cheaper than that available in Singapore. The Singapore government could either try to contain wage costs or it could let go of those industries which required very cheap labour and direct its attention to creating industries which produced higher value-added goods and use them to increase the standard of living of the Singaporeans.

Over time it became evident that the latter was a more preferable option. However, the decisions were not straightforward. After initially trying to contain labour costs, and finding that this was a difficult strategy, they shifted their attention to attracting companies with more higher value-added forms of production.

Such a strategy had the added advantage of enabling living standards to continue to rise, thereby enhancing the legitimacy of the government. This new 'high skills' strategy was an emergent policy, it did not appear overnight and took slightly different forms in the three Tiger economies. However, once established it did call for the mobilisation of political resources across the whole range of government departments to ensure that actions were coordinated and mutually supportive in pursuit of their common vision.

The original labour intensive industries were encouraged to transfer to the region, especially to Indonesia, and new industries were attracted to the island. Simultaneously the government modernised and upgraded its education and training system to deliver the skills required for the new industries. This ensured that economic growth was not held back by skill shortages. Economic growth continued and the standard of living continued to rise. Today the Singaporeans have a standard of living on a par with that in the older industrial countries; they have caught up. There is a similar story in Taiwan and South Korea.

While the Singaporean government now makes explicit this strategy of continually moving up the value chain, this was not always the case. In the early days, as we have seen, it was primarily concerned with securing jobs, any jobs. It was only when full employment was achieved that it started to move in the direction of the high skills society or the high skills route. Looking back it appears to be one continuous success story but the reality was different. At each stage the government faced a struggle to achieve its objectives and once they were achieved they then formulated new objectives. The other two Tiger economics witnessed the same process of economic growth but the way they achieved their objectives at each stage was different. Each society had to navigate its own route.

The important point is that the low skills strategy can be very positive if it is associated with a subsequent move into more higher value-added activities. Indeed this has now been recognised by the United Nations Industrial Development Organization (UNIDO) as an effective strategy. UNIDO recommends that developing countries adopt a strong industrial policy, and supply labour intensive products through transnationals to world markets, as the basis for industrialisation. The links with foreign corporations are seen as the most effective way of incorporating new technology and improving industrial productivity and performance as has been the case in Thailand, the Philippines, and Ireland.

Adopting such a strategy does not mean that you abandon the pursuit of high skilled jobs. All societies have a combination of the two, it is only the balance between them that differs. The case of China is perhaps the latest success story in this respect. There they are using foreign direct investment (FDI) to create low skilled jobs to mop up unemployment but at the same time developing a high skills sector. They have witnessed an increase in low skilled jobs but they are also developing their high-tech industries in areas such as aerospace and electronics. In addition those firms operating in international markets are also introducing the latest most sophisticated management techniques such as 'high performance workplaces'. These practices are now being taken up by indigenous entrepreneurs (Venter 2002).

The important point is that when we view the process of industrial development over time, then it is clear that almost all the successful 'follower' countries have used low-cost labour as their initial source of development. For

them low-cost labour and the competitive advantages it brings was a stepping stone on the road to industrial growth. Moreover, this initial stage succeeded in tackling the problem of poverty. Large groups were taken out of poverty and provided with an income and the means for maintaining a minimal standard of living.

The role of government and the state – politics

If these societies have been able to use a low skills strategy in a positive manner, the next question is how have they done it? What role has government played? Is full employment something that the government can expect the market to deliver or does it require active government support? Put another way, what is the scope for government action? Can governments make a significant difference in shaping the economy?

Here the experience of those countries that have recently been successful in this respect provides two possible alternative examples. There are some societies such as Hong Kong and Ireland which have used the 'free market' to deliver full employment and a subsequent move into a higher proportion of skilled jobs. However, there is also a contrasting model which we have already touched on, as in Singapore, where the government has been far more proactive in 'shaping the market' (Ashton & Sung 2000). If either of these models is to be of help in the South African context, we next need to establish the conditions under which they were effective and ascertain whether such conditions currently exist in South Africa.

In the case of Hong Kong and Ireland there were relatively fortuitous 'external' circumstances that favoured the rapid growth of the economy, and later the influx of FDI. All the government had to do was to ensure that there were no serious internal obstacles to economic growth; that is, to ensure that the market worked effectively. In the case of Singapore and Korea, they had no such fortuitous external circumstances and had to rely more on the 'internal' strategy of the government to kick-start and sustain the process.

In Hong Kong the fortuitous external circumstance was the displacement of the owners of the textile industry from Shanghai, following the victory of the communists, and their relocation to Hong Kong. They brought with them the capital and expertise to set up the industry, which then absorbed surplus labour in the colony and delivered manufactured goods to the UK and world markets. All the government in Hong Kong had to do was to provide an efficient and stable form of government and ensure that the market worked effectively, leaving the new entrepreneurs to deliver the manufacturing output and the low skilled jobs. The availability of cheap labour and the low price of the goods provided a competitive advantage in the foreign markets and the economy prospered, creating full employment by the 1970s.

With full employment came a rise in labour costs and the emergence of new industrial competitors in Thailand and Indonesia and elsewhere in the region with lower wage costs. Here again there was a new set of fortuitous circumstances. This time they came in the form of the gradual entry of the Peoples' Republic of China (PRC) into world markets and the opening up of the Chinese market to investment from the West. This enabled the manufacturers in Hong Kong to retain high value-added design and development work in Hong Kong then became the provider of business services to the region with the result that the low skilled jobs that were lost to China were replaced with higher skilled jobs in the business services, banking and finance industries. Again, all the government had to do was ensure that there was political and economic stability and the 'market' did the rest.

We find a similar set of fortuitous circumstances in Ireland (Field 2002). For years it had a relatively highly skilled (educated) labour force and a close link to the UK economy providing agricultural produce to the UK market. This generated low rates of economic growth. There was no impetus to economic growth following the success of the independence movement in the 1920s. The conventional explanation was that Ireland's failure to industrialise was due to the impact of the Catholic faith and the belief in the importance of the after-life, as opposed to a belief in the Protestant ethic, which many argued had kick-started the process of industrial growth in northern Europe.

However, in the late twentieth century Ireland also faced fortuitous external circumstances. With entry to the common market and especially the European Monetary Union, the single currency, Ireland now had access not just to the UK market but to the whole of Europe. The result was an inflow of investment funds from the European Union for infrastructure projects and from foreign capital to take advantage of the cheap and relatively highly

skilled labour in Ireland. This FDI resulted in Ireland providing a manufacturing base for high value-added IT and electronic goods in the European Common Market. All the government had to do was to ensure political and economic stability, although it did go further than this and create a consensus between capital and labour around wages and productivity, making Ireland an 'accidental Tiger'. There has been little in the way of an explicit high skills strategy in Ireland, but nevertheless there has been rapid economic growth and a substantial shift in the direction of a high skills economy.

Such fortuitous 'external' events were not available to the three Asian Tigers of Singapore, Taiwan and South Korea. There, as we have seen, all the governments had was cheap labour, there was nothing about any of these economies that would make them act as a magnet to attract foreign capital.⁵ If we take the case of Singapore, the government had to identify which industries it thought would be appropriate to take advantage of that cheap labour and it had to set about attracting them to Singapore. This meant the government had to do more than just provide a stable and efficient political system. The government had to actively seek out suitable multi-national corporations and negotiate attractive tax and support packages to entice them to Singapore and ensure that they had a literate and flexible labour supply. Once full employment was achieved and labour costs rose, there was no foreign capital queuing up to enter the country and introduce higher valueadded jobs. The old industries had to be persuaded to leave and the new higher value-added industries attracted to provide new higher skilled jobs to replace them. What the fortuitous external circumstances had done for Hong Kong and Ireland, the government had to engineer for Singapore and to a similar extent in South Korea and Taiwan.

The crucial factor in all this is the availability of options at the 'external' or international level. In the case of Hong Kong these were available and all the government had to do was to facilitate the process of first generating jobs and then moving into higher value-added activities through its existing policies; for example, expand the education system and introduce skills training. In Singapore, by contrast, the government had to use its resources to re-direct industries; for example, encourage low value-added producers to leave, attract higher value-added producers, as well as raise the skill levels.

Conclusions: implications for South Africa

There are a number of implications which follow from the above analysis. First, the low skills strategy is certainly viable as a solution to the problems of poverty and unemployment. However, in a South African context this would only operate if the remnants of the racial segmentation of the labour market were eradicated. What is crucial at the emotional level is that the previous equation of blacks with low skilled employment is destroyed. This would then permit a low skills strategy to be seen in a positive and constructive light.

Second, such a strategy would provide the material basis for building the skills and training capacity of the country, ready for the subsequent expansion of highly skilled jobs. By taking large groups out of poverty and transforming them into productive workers then the resources are being created for the necessary improvements in the skills infrastructure.

Third, the use of the low skills strategy would not preclude the simultaneous growth of intermediate level and highly skilled jobs. At the moment professional, managerial and technical jobs are growing as a proportion of total employment in most industrial countries.

Fourth, the use of a low skills strategy would not preclude the introduction of the most modern high performance management techniques, as is happening elsewhere. Indeed, if the experience of China is anything to go by, these techniques are already being used there to increase the sophistication of management and the efficiency of the economy.

In the case of South Africa, it may be more appropriate to talk of a skills strategy which targets jobs with basic skills as an essential prerequisite to a subsequent re-balancing of the economy in the direction of a higher proportion of intermediate and higher-level skills.

Finally, we are left with the problem of identifying the appropriate role for political action. Here, at the international level, it is doubtful whether there are any fortuitous 'external' circumstances which would trigger this process of job growth in South Africa. In view of this then the most appropriate model would be for forms of government action to help kick-start the process in South Africa and for it to help shape the market.⁶

Notes

- 1 Not all such countries were equally successful in this task.
- 2 There has been considerable debate of the extent to which the use of IT has made permanent change in the productivity of the US economy but it is widely believed that the impact of IT has improved productivity across a range of industries. See, for example, the ILO, *World Employment Report 2001*.
- 3 The figures quoted were derived from Bhorat (2001).
- 4 The analysis of the Asian Tigers is derived from work with various colleagues, notably Johnny Sung and Francis Green. See Ashton and Green (1996) and Ashton *et al.* (1999).
- 5 The partial exception here was South Korea where the need to sustain South Korea in the war with the North led to substantial US funds flowing into South Korea.
- 6 For a discussion of this see Ashton and Sung (2000).

5 The National Skills Development Strategy: a new institutional regime for skills formation in post-apartheid South Africa

Andre Kraak

Introduction

This chapter provides a detailed overview of the South African Government's new *National Skills Development Strategy* (NSDS), which was formally launched in February 2001. The NSDS is comprised of seven core elements which, when taken together, construct a radically different approach to skill formation. The new strategy replaces the narrow, short-termist and voluntarist model of enterprise training which predominated during the apartheid period (as outlined in Chapter Two of this book), with a new framework based on: greater co-ordination and planning (to be met primarily through new institutions at the national and sectoral levels); greater stakeholder consensus; and improved funding arrangements which cede to the state and the new Sectoral Education and Training Authorities (SETAs) real leverage over the direction of training initiatives.

The chapter is primarily a detailed descriptive exposition of the new training policy. This is intentionally so given the almost total absence of any other academic writing on the NSDS. A more critical engagement with the NSDS is delayed until Chapter Ten where the author interrogates the feasibility of some of its core elements.

However, the analysis is not purely descriptive, because it interprets many of the features of the NSDS as having much in common with some of the key characteristics of high skills systems elsewhere in the world – for example, the emphases in the NSDS on: 'joined up' state policy and co-ordination; the importance of intermediary institutions (the SETAs) in obliging stakeholders to invest further in enterprise training; and on the importance of social consensus in the regulation of the skills regime. Again, a more thorough conceptual engagement with the specific skills regime typology represented by the NSDS and its relationship to the high skills debate is delayed until Chapter Ten. The discussion here, then, maps out the descriptive elements of the NSDS and lays the basis for a much wider and more critical engagement in Chapter Ten.

Improving co-ordination through a new institutional environment

One of the first reforms proposed by the Department of Labour (DoL) in its Green Paper of 1997 was the construction of a new enabling institutional environment 'for an expanded strategic investment in education and training' which would not necessarily happen if left to market forces alone (DoL 1997: 52). The new institutions which have been set up are seen as intermediary structures between government and organisations in the private sector that will assist in providing the necessary co-ordination, financial incentives and social obligations to invest in training. Macun (2001: 178), who was appointed Director of the DoL's Skills Planning Development Unit at its inception in June 1999, views the new institutional environment as a hybrid structure of public-private interests that attempt to overcome the usual state-versusmarket polarity. These are 'collective action' agencies run by stakeholder representatives with differing interests who will collectively decide on how best to govern and implement skills development. They will work in partnership with the state, which, through the National Skills Fund (NSF - to be discussed later), will retain significant powers of intervention in shaping skills development in specific sectors.

The Green Paper argued strongly for the co-ordination of training, entailing an enabling environment of intermediary institutions and regulatory mechanisms that link training activities at the enterprise level with the sectoral level, all within the context of a single national regulatory framework. The *Skills Development Act* of 1998 (RSA 1998c) put such a national regulatory framework in place. One of its key components was the establishment of 25 SETAs, which were launched on 20 March 2000. A further component of the Act allowed for the establishment of the National Skills Authority (NSA) in April 1999 – a body that has as one of its main functions the development of a NSDS.

There are continuities here with past structures, particularly the Industry Training Boards (ITBs, which have been collapsed into the SETAs) and the National Training Board (NTB, which has been dissolved into the NSA). However, the Green Paper argues that these bodies in the past were ineffectual, based on a voluntarist model of enterprise training. The main differences between the old and new institutional forms are:

- ITBs had a narrower focus of training apprentices. The SETAs will expand training at all occupational and qualification levels.
- The new institutional environment to be set up around 'Learnerships' (to be discussed in a later section) is intended to turn around the decline in training due to the demise of the old apprenticeship system.
- 'Sectors' are larger than 'industries' and include a number of industries previously untouched by ITBs or demarcated by separate ITBs.
- 'Sectors' are more inclusive than 'industries' as they incorporate work that is not part of formal organised industry, most notably, the small, medium and micro enterprise (SMME) sector.
- SETAs are also responsible for including people who are not in formal employment, for example, in SMMEs, in job creation programmes, pre-employed youth and the unemployed.
- There were 33 ITBs in March 2000, but the potential future growth could have exceeded this number, making for a massive institutional bureaucracy characterised by duplication, inefficiency and a general lack of co-ordination.
- Some ITBs were setting standards, providing training and conducting quality assurance, whereas the new South African Qualifications Authority (SAQA) legislation specified that these functions needed to be performed separately.
- The ITBs were not consensual bodies, and they only included trade union representation in the dying moments of the apartheid era.
- Government departments were not represented in the ITBs closest to their line function activities and no public-private partnerships were encouraged in the old training regime. (DoL 1997: 53; DoL 1999b: 2)

The core functions of SETAs, as defined by the *Skills Development Act* of 1998, are to:

- Develop a Sector Skills Plan;
- Promote the implementation of the plan in the sector;
- Promote learnerships;
- Register learnership agreements with the DoL;
- Acquire accreditation to function as a Education and Training Quality Assurance (ETQA) body;
- Collect and disburse the skills development levies in the sector;
- Liaise with the DoL and the NSA;
- Report to the Director General of Labour on income, expenditure and the implementation of the Sector Skills Plan; and
- Improve information flow about employment opportunities in the labour market. (RSA 1998c: 12–14)

SETAs have additional responsibilities in their sectors. They need to assist and encourage employers to prepare workplace skills plans and pay a mandatory grant to employers who prepare such a plan. SETAs will also be involved in the implementation of the key targets of the NSDS in their sector. They will need to reach agreement on the sector's contribution to the achievement of each national target. But most importantly, SETAs will need to establish 'awareness raising strategies to enable links with employers, trade unions, providers and other groupings to be established' (DoL 1999a: 24). These networks will take the shape of both formal and informal partnerships across a wide array of public and private institutions. These networks (between employers, ET providers and government departments) will be the institutional vehicles for learnership programmes and other shared training activities in the sector.

This associational or networking role is at the heart of the new institutional regime for skills formation. Success here will determine whether skills development will take off or whether the status quo will remain. Underpinning the construction of this new institutional environment is the assumption that collective institutional pressures will oblige individual employers to increase their investments in and co-ordination of skill formation (see Streeck 1992; and Crouch, Finegold & Sako 1999 for studies of the critical role played by nationally-distinctive institutional arrangements in promoting skills formation and economic growth across the globe).

The NSA

Co-ordination at the national level is now concentrated in the activities of the multipartite NSA which emerged from a revamped NTB. The NSA has stronger advisory powers than the NTB. Firstly, the NSA is responsible for defining national skills development policy in consultation with the DoL. Secondly, the Minister will approve the NSDS every four years only after consultations and advice from the NSA regarding priorities and targets. And thirdly, the NSA will approve the allocation of monies from the NSF on the basis of recommendations from the DoL. In performing these three critical functions, the NSA will also benefit from quantitative and qualitative labour market information to be assembled and collated by the Skills Development Planning Unit in the DoL.

Learnerships – a new 'labour market-education training' institutional regime

South Africa's past training regime failed dismally at providing training for the three key categories of learners in the labour market: the pre-employed; the currently-employed; and the unemployed. For example, technical colleges provided poor pre-employment training with very low placement rates. In addition, the apprenticeship system, as a form of employment induction, is in severe decline. As observed in Chapter Two, enterprise training and the training of the unemployed have, for different reasons, been of low quality and have impacted on insignificant numbers. Such training also did not lead to greater portability through the acquisition of qualifications and credits.

As a response to this legacy, the 1997 Green Paper and 1998 *Skills Development Act* proposed a very ambitious new framework aimed at impacting on each of these learner constituencies through the creation of a new institutional regime with strong links forged between learners, employers, government and the new intermediary training bodies, SETAs. This new institutional mechanism for delivering training has been termed 'learnerships'.

The Green Paper and Act defined learnerships as having a three-fold purpose. Firstly, they are aimed at providing workplace learning in a more structured and systematic form. Formalised learning will be provided by an accredited education and training (ET) provider (for example, a college, technikon or private provider). Secondly, learnerships seek to link structured learning to multiple sites of work experience. Learnership agreements need to be drawn up between the employer, ET provider and learner to specify the conditions of employment and practical work experience, and when the learner will be released to attend training classes. And finally, all of this training and practical work experience must culminate in a nationally-recognised qualification (DoL 1997: 3).

These features differ markedly from the previous apprenticeship system, which had very loose requirements regarding the linkage between theoretical training and work experience. Most often in the past, apprentices would undergo a minimal level of theoretical training at a technical college (acquiring certificates N1 to N3 [equivalent to Grades 10 to 12], which were often unrelated to their practical training) with little supervision or structured induction into skilled work at their places of employment. After serving a particular period of time as novices, apprentices would then write trade tests and progress to becoming certificated artisans. This entire system was restricted to a limited range of intermediate level trade skills.

In contrast, learnerships are intended at all levels of the National Qualifications Framework (NQF) and are not restricted to the intermediate levels as has been the case with apprenticeships. Nor are learnerships restricted to specific age cohorts as was the case with apprentices (where youth over the age of 24 were excluded). Learnerships in the General Education and Training band (equivalent to the first nine years of schooling and NQF Level 1) will provide foundational competencies to those workers who were denied the development of these competencies at the primary and junior secondary school level. They will have a redress function to ensure that there is a proper foundation for further learning. Learnerships in the Further Education and Training band (equivalent to the last three years of secondary school and NQF Levels 2 to 4) will develop both general and specific competencies, preparing learners for intermediate level employment. And learnerships in the Higher Education and Training (HET) band (NQF Levels 5 to 8) will develop specialised, para-professional and professional competencies in co-operation with technikons and universities (DoL 1999b: 34-36).

The main differences between learnerships and apprenticeships are:

- *Learnerships are demand-led:* they are offered in response to social or economic needs that are more broadly based than formal sector needs alone.
- *They appeal to a wider range of learners* including the pre-employed, unemployed and currently-employed.
- *They are more diverse than apprenticeships:* the new approach seeks to expand the economic boundaries of sectors beyond formal enterprises by proposing learnerships in occupational areas and in multiple sites where SETAs have not previously had access or been present.
- They have a differing curriculum content to apprenticeships: learnerships aim to integrate theoretical education and skills training. Learnerships may not provide theoretical tuition without practical experience – as is currently the case in technical colleges – nor vice-versa, as is the case with narrow industrial training in many enterprises at present. (DoL 1999b: 13–14)

The expansion of the applicability of learnerships to widening boundaries and new contexts is central to the ambitious thrust of the new skills development model. A publication by the DoL defined four expanded employment contexts in which learnerships could be set up. These comprised, firstly, the traditional medium to large enterprises in the formal sector; secondly, SMMEs in both the formal and informal economies; thirdly, the volunteer and non-governmental development sectors; and lastly, public sector job creation schemes (DoL 1999b: 17–22). Differing learnership models would need to be constructed in these highly divergent contexts, including partnerships with other agencies such as Ntsika (a government support agency for small business located in the Department of Trade and Industry [DTI]) with regard to SMMEs, group training schemes where learners are placed with a range of smaller employers, and support strategies which lower barriers to entry for emerging SMMEs (DoL 1999b: 45–49).

Getting learnerships up and running will be a mammoth task and will involve significant efforts from a range of players. This ambitious plan requires a complex new institutional environment to emerge and interlock, involving:

• *Public and private employers* from at least four different types of potential employment contexts (the formal sector, SMMEs, the volunteer/NGO service sector, as well as public sector job creation schemes);

- *ET institutions* (such as colleges and technikons) as providers of structured learning;
- The SETAs, ETQAs and SAQA structures as funders, quality assurers and regulators; and
- *The learners* themselves.

It is not yet evident that government and the new institutions have the operational capacities for steering such a large project. Nor is it clear that employers will commit themselves fully to this new initiative. Although much of the NSDS has been negotiated in the multipartite National Economic Development and Labour Council (where employers and unions have a strong input into government policy) and in regular public stakeholder forums, and although employers are equally represented on all the new SETA institutions, there is no clear evidence that a significant paradigmatic shift has occurred amongst employers – away from their previous short-term, narrow and voluntarist views on training, towards a more expansive recognition of the value of skills development to economic growth in the medium- to long-term.

However, the biggest limitation of the new strategy may be its reliance on learnerships as the major vehicle for upgrading enterprise training. In the past, short-course semi-skilled training programmes were by far the major focus for the training of workers. However, in the new framework, these kinds of training programmes receive less prioritisation, at least in terms of the new policy discourse. All energies have been put into outlining the specifications of learnerships, with little effort going into emphasising the importance of on-going short-course training programmes.

The 1998 Act does make provision for 'skills programmes', which are more job specific, emphasising skills and underpinning knowledge rather than general education, but which will also generate credit points towards a qualification on the NQF. Skills programmes are eligible for SETA funding (DoL 1999b: 29–30).

However, there are risks in hoping that, on the one hand, learnerships will peak beyond 80 000 learners by March 2005 (as targeted in government plans), whilst, on the other, paying less attention to the expansion of ongoing short-course training programmes across a wider social base and failing to see to their more effective articulation with whole qualifications registered on the

NQF. South Africa can learn from the experiences of the United Kingdom and Australia where the learnership (or modern apprenticeship) system has also been implemented. Given the high levels of institutional and legal complexity placed on employers by these new schemes even in these first world contexts, modern apprenticeships have not as yet achieved dramatically increased levels of graduate output.

A new funding framework

A new funding system has been introduced as a further cornerstone of the new skills development regime. In the past, employers who trained, qualified for tax concessions from the state. However, because of the high levels of tax abuse, this system was phased out in 1990. An ITB-led voluntary industrybased levy system was introduced in 1990, but it failed to stimulate training because of the implicit voluntarism in the system. Not all economic sectors established ITBs or levies, and many employers were reluctant to train, preferring to poach their high skill labour needs from other companies. ITBs also experienced difficulties in collecting levies from individual companies and poor quality delivery permeated much of the system (NTB 1995). These conditions led the NTB to acknowledge 'market failure' and the clear need for state 'intervention in the training system' (NTB 1995: 75).

The levy-grant system

The 1997 Green Paper proposed a bold new funding framework that attempted to break with past voluntarist models. The proposals were approved by government in the *Skills Development Act* of November 1998 and the *Skills Development Levies Act* of February 1999. At the heart of the new strategy is a compulsory national levy-grant system based on one per cent of payroll as from 1 April 2001. The payroll levy is collected monthly by the South African Revenue Service (SARS) alongside the normal tax regime. All tax-paying companies must pay the levy, and must register with the SARS for levy-paying purposes. Government motivated its choice of a levy-grant system in the following way:

A grant mechanism enables targeting of funds to areas of strategic skill need against clearly defined criteria. Grants act as incentives

for enterprises to train in those areas targeted. A levy-grant scheme is an efficient mechanism to the extent that those that pay the levy are able to benefit directly by claiming the grant to compensate them for costs incurred whilst training in defined areas ... The levy-grant scheme enables government to leverage better enterprise training through the conditions which they are required to meet in order to access the grant – a leverage which is strengthened when [the state] provides a matching fiscal contribution in priority areas. (DoL 1997: 67)

The levies collected by SARS move from the National Revenue Fund to two destinations, based on the division of the funds as specified in the Acts. Of total levy revenue collected, 80 per cent is re-allocated back to the sector via grants to enterprises that train. The SETAs administer the levy-grant income, and are allowed to spend no more than 12.5 per cent of revenues on administration (RSA 2001: 6). Of total revenues collected, 20 per cent is retained by the state to form a National Skills Fund (NSF) to be used for strategic priorities identified by government and the NSA.

The NSF

As mentioned earlier, 80 per cent of the levy goes back to SETAs for the disbursement of grants to employers for training completed. The remaining 20 per cent is transferred to the NSF. This is an important innovation that cedes real leverage to the state over the market. The NSF, according to the *Skills Development Act*, may only be used for national priorities as identified by the NSDS and through the advice of the NSA (RSA 1998c: 30). The Green Paper identified three priority areas: strategic industry training programmes; learnership programmes which incorporate adult basic education and training, pre-employment training, SMME training and target group training; and finally, infrastructural development programmes for private sector providers of ET.

The NSA has developed the concept of 'funding windows' in which NSF grants can be allocated. In the financial year 2001/2002, these 'funding windows' sought to support social development initiatives, bursary schemes for scarce skills, strategic industry projects, research to improve labour market

information systems, as well as the capacity building of stakeholders (DoL 2001d: 4, 9).

The NSF is now a substantial financial resource for the state. It received R180 million in 2000/1 and double that in 2001/2 (DoL 2001b: 51). The income generated by the levy for the SETAs was R720 million in 2000/1 and just over R2 billion in 2001/2. The combined investment in future will be in excess of R2.75 billion a year on training (DoL 2002c: 24; *Pretoria News*, 16 April 2002).

Tax breaks for learnerships

A further arm of the new financial regime in support of skills development entails tax breaks for firms offering learnerships. These were launched in April 2002 by the Minister of Finance, Trevor Manuel. The core components of this tax incentive are: a R25 000 deduction for an employer when a learnership agreement is signed and another R25 000 deduction when the learnership is successfully completed (*Pretoria News*, 16 April 2002).

Complementing demand-driven training with strategic supply-side initiatives

At the heart of the 1997 Green Paper is a demand-led enterprise training policy which is underpinned by appropriate supply-side measures. A demandled model is essential, according to the Green Paper, to develop greater responsiveness to employer skill needs at the enterprise level. Training systems need to be sufficiently flexible to remain in touch with the constantly changing skill needs of industry. They need to be closely linked to the requirements of work and need to be of sufficient quality and relevance to support increases in productivity in the workplace (DoL draft version, 1996: 21). International experience shows, the Green Paper suggests, that the market mechanism is best suited to establish this 'responsiveness'. State training infrastructure should provide incentives to optimise private sector training and the effective functioning of the market. However, this opens up a potential discontinuity with the policies of the Department of Education (DoE), which are predicated on the further development of public sector provision, as Chapter Seven illustrates. The new policy texts are very careful that their advocacy of demand-led training does not suggest sympathy with neo-liberalism's absolute faith in the effectiveness of the market. This becomes evident in the Green Paper's critical review of past training practices that were predominantly market-led in the 1980s and early 1990s:

Some parties acknowledge the problems identified, but argue that market forces will address these problems over time as international and domestic competition increases and the importance of skills development is realised. While the government recognises the important role the market has to play (as is evidenced by the focus on demand-led training), it nevertheless believes that a more proactive strategy is required. If we wait for market reaction, there is a danger that it will be too little too late. There is also a danger that certain economic opportunities will be missed because the skills to exploit them were not pre-determined and developed. We also need to acknowledge that our base of departure is very low and needs to be raised. The core strategy is to create an enabling environment for expanded strategic investment in education and training to achieve these objectives and results. Central to this enabling environment is the institutional and regulatory framework needed for implementation and monitoring. (DoL 1997: 52)

Indeed, the policy documents argue that the emphasis on demand-led training does not suggest 'that the supply-side of the system should be disregarded or neglected, but rather that it be improved within the context of demand-led training' (DoL 1997: 13). The next section describes five key supply-side measures which are stressed throughout the Green Paper.

Being proactive in terms of creating new skill demands

Simply focusing on an efficient training provider system that slavishly follows industry skill demands is insufficient to achieve this shift to a new skills profile. Old occupational and skill categories no longer hold and firms are required to become more proactive in consciously using skill creation as a vehicle for achieving competitive advantage. To achieve this there will need to be a paradigm shift in which the actual demand for skills within firms and industry changes (DoL 1996: 22; see also DoL 1997: 14).

Both the draft and final Green Papers advocate a critical role for government in supporting this shift to a higher skill paradigm. This role includes establishing SETAs in each industrial sector to create a 'thicker' institutional environment of intermediary structures linking government, industry and enterprises together in a joint venture to promote continuous skill formation (DoL 1997: 14).

Long-term planning of skill priorities in strategic industries

Another key role for government is to facilitate the availability of strategic information on new industry growth points, declining industrial sectors, and the skill priorities and labour market changes that will arise as a consequence of these shifts in the medium- to long-term (DoL 1997: 14).

Acquiring state leverage through the levy-grant funding scheme

The proposed levy-grant funding scheme provides the state with critical leverage in the economy and in the formation of skills, which it previously did not have.

Market failure and social protection for vulnerable groups

The Green Paper justifies its recommendations for the creation of new institutional forms at two levels. On the one hand, 'each institution and regulation proposed needs to be justified in terms which identify the (market) failures which would result if it were not introduced'. On the other hand, 'where market mechanisms are recommended, the effect on vulnerable members of society needs to be addressed' (DoL 1996: 29). The Green Paper's proposals for revamped Employment Services and the establishment of a NSF are specific mechanisms designed to introduce some form of 'social safety net' in cases where dramatic shifts in the market trigger severe social dislocation. Specific mechanisms proposed include target group training (of previously disadvantaged communities), retrenchment 'social plans', and state assistance in the formulation of community 'development plans'.

Articulating government policies across interrelated policy domains

The pinnacle of any supply-side strategy is the effective articulation of government policies across interrelated domains such as education, training, labour market regulation, industrial restructuring and macroeconomic policy such that each of these policy initiatives fully capture the reciprocal, mutuallyreinforcing and ultimately beneficial effects of the other policy domains so as to optimise their combined impact on economic performance. This complementarity is stressed throughout the Green Paper.

Underpinning all of the above is the concept of market failure and the shortterm horizons of South African capital (and those of the previous government), which necessitate a careful balance between demand-driven training and supply-side initiatives. The Green Paper notes that effective skills development cannot be driven solely by short-term, market-led imperatives. The creation of a high-quality training system requires 'a stable infrastructure to both support a competitive training market and to provide more technically advanced capabilities which have long lead times and require substantial investments in plant, equipment and technology' (DoL 1997: 15) – qualities not delivered in the short-term through market considerations alone.

Macun (2001: 175) notes that the role of the state should be proactively to stimulate demand, and not merely rely on current demand as generated by employers. He sees the levy-grant system as a key lever to contribute to the stimulation of demand for skills, and the introduction of planning as a means of ensuring improved co-ordination between labour market skill requirements and investments in training. Macun also flags the importance of an industrial policy that is able to indicate new areas of future economic activity and the consequent stimuli required in the demand for, and supply of, new skills in the medium- to long-term.

Planning

A further key feature of the new skills development regime is its emphasis on national and sectoral planning, co-ordination and management information systems. Successful planning and co-ordination require sophisticated national, sectoral and localised data. As a consequence, many of the policy texts on skill formation have emphasised the development of labour market and education information databases. The 1997 Green Paper, for example, envisaged four areas of labour market information retrieval, these being:

- *Labour market trends analysis* entailing the identification of trends in: the rate of growth of different industries and occupations; possible skills shortages, surpluses or quality gaps; and making recommendations regarding skill priorities in the economy.
- *Sectoral studies* aimed at identifying strategic initiatives through industrial studies that examine the present state and future possibilities of each industry over the medium- to long-term.
- *Skill audits of government development projects* particularly those within the ambit of the Reconstruction and Development Programme (RDP) and other public sector developmental initiatives that are likely to require substantial skills development and training infrastructure.
- The *evaluation and monitoring* of the extent to which national skill priorities and targets have been achieved over a given period of time. Such information would provide a crucial feedback into the policy refinement process benefiting later policy phases.

The *Skills Development Act* of 1998 took this further and proposed the formation of a Skills Development Planning Unit which would co-ordinate and commission research on 'the labour market in order to determine skill development needs' at national and sectoral levels as well as within the public sector (RSA 1998c: 26). The Skills Development Planning Unit would also assist in the development of Sectoral Skill Plans and a national strategy on skills development. The Skills Development Planning Unit would provide information to the Minister, the NSA, the 25 SETAs, other organs of the public sector, and ET providers (RSA 1998c: 26).

Macun argues that the approach to planning adopted by the DoL is significantly different from the 'manpower planning' methodologies favoured in the past but which subsequently have been discredited for being seriously flawed predictors of future skill needs. The new planning approach, as outlined in the Green Paper, is to focus on a combination of quantitative and qualitative tools, the use of monitoring and evaluation methodologies which would 'signal' new trends emergent in the labour market, alongside consultations with experts and stakeholders, 'all of which should form the basis for setting out strategies and broad priorities which would guide decisions at industry, enterprise, or local levels' (DoL 1997: 20). The new approach has abandoned the pretence of earlier models of manpower planning of being able to forecast accurately into the future. Rather, it seeks to identify the broad parameters of national and sectoral skill priorities and strategies.

The Skills Development Planning Unit has been instrumental in setting up and co-ordinating a national planning cycle of four year's duration. The NSDS is to be published every four years. The same applies to Sector Skills Plans, with annual updates. Workplace Skill Plans will be produced each year. The logic of the overall planning cycle is as follows: the Skills Development Planning Unit provides guidelines for Sector Skills Plans and Workplace Skill Plans. It sets national targets and priorities, which are then responded to by employers through their Workplace Skill Plans, which feed into the Sector Skills Plans, which in turn feed into the NSDS drawn up by the NSA with significant input from the DoL. The Sector Skills Plans and the NSDS are then approved by the Minister on the recommendation of the NSA. Provincial Skills Development plans are to be developed by the DoL's provincial offices, which also feed into the whole planning process.

Success indicators and meeting planned targets

The planning imperative has been developed even further with the inclusion of several performance objectives and success indicators in the NSDS released in February 2001. Similarly, the push for planning has been further advanced with the publication of government's *Human Resource Development Strategy for South Africa – A Nation at Work for a Better Life for All* (DoE and DoL 2001) on 23 April 2001. It outlines their new Human Resource Development Strategy (HRDS).

The NSDS

The NSDS has five objectives. Within each of these objectives, the DoL, in consultation with SETAs and a wide range of stakeholders, has set very specific success indicators that need to be achieved by March 2005. Badroodien in Chapter Six of this book interrogates these indicators in great detail, so only the key indicators will be listed here:

- Blacks constitute 85 per cent of training beneficiaries; women 54 per cent; and the disabled 4 per cent.
- Of the formally-employed workforce, 70 per cent possess qualifications at NQF Level 1.
- A minimum of 15 per cent of the formally-employed workforce have moved up one level on the NQF.
- Of enterprises with more than 150 workers, 75 per cent are receiving skills development.
- At least 40 per cent of enterprises employing between 50 and 150 workers are receiving skills development grants.
- At least 20 per cent of SMMEs are being supported in skills development initiatives.
- A minimum of 80 000 people have entered learnerships.
- A minimum of 50 per cent of those who have completed learnerships are, within six months of completion, employed, in full-time study or further training, or are in a social development programme (DoL 2001c).

These targets are very ambitious. For example, in a HSRC survey of training conducted in 2000, it was shown that blacks constituted 68 per cent of the beneficiaries of training (Kraak, Paterson, Visser & Tustin 2000: 122) – reflecting a significant gap which will have to be closed if the target of 85 per cent is to be attained. The same survey showed that women constituted only 30 per cent of the beneficiaries of training. Attaining the target of 54 per cent remains a major challenge in the next four years. Training of the disabled by firms is almost non-existent. However, some of the targets are attainable. For example, 64 per cent of employees surveyed in the HSRC study possessed a qualification at NQF Level 1 – coming close to the target of 70 per cent set. However, the HSRC survey only really collected data from large, medium and small firms in the formal sector, leaving unanswered the extent to which workers in the informal economy have attained NQF Level 1.

The HRDS

The primary function of government's HRDS is to emphasise the need for cross-sectoral planning and co-ordination. It brings together a wide range of government departments that have an interest in HRD, with the lead departments being Education and Labour. The strategy has five major objectives. These are:

- Improving the foundations for human development.
- Improving the supply of high-quality skills (particularly scarce skills) which are more responsive to societal and economic needs.
- Increasing employer participation in lifelong learning.
- Supporting employment growth through appropriate industrial policies, innovation, research and development.
- Ensuring that the main objectives of the HRDS are properly integrated. (DoE and DoL 2001: 2)

The HRDS is less specific about actual targets than is the case with the NSDS. Rather, it suggests the need for improving delivery or resolving difficulties in a wide range of key indicators which include: placement rates: labour migration; higher education participation rates; changing labour market structure; new skills requirements; unemployment; public sector skills; research and development (R&D) output; and science–industry partnerships. The HRDS has selected seven priorities for 2001 and beyond. These include: improving public sector skills; resolving scarce skills; meeting the NSDS targets for learnerships; supporting SMMEs; improving and expanding delivery in Adult Basic Education and Training (ABET) and Early Childhood Development (ECD); and improving South Africa's R&D infrastructure.

The key message of the HRDS is that making progress in each of these priority areas cannot be achieved in isolation of the others, because they are all transversal in character – they shape and are shaped by the other factors. This places a huge challenge on separate government departments to work more closely together than ever before.

Social development initiatives and employment promotion

Training systems in most industrialised and developing economies tend to be biased towards formal sector skill needs to the detriment of the peripheral sectors of the economy and society. However, the Green Paper displays a consistent concern for the plight of the most vulnerable groups – a very large segment of South African society. Vulnerable groupings include the rural poor (especially women), the youth, workers in the informal sector, those who are unemployed, and persons with disabilities. The Green Paper was highly critical of past Department of Manpower training programmes aimed at these target groups. The report cites the lack of a common approach to training target groups as the main cause of poor delivery. Training programmes for vulnerable groups were run by many former apartheid government departments (for example, Manpower, Public Works, Trade and Industry, Water Affairs and Agriculture) without the necessary expertise to design and monitor these programmes. Little attempt was made to articulate training policy initiatives across these related policy domains.

The new strategy is to expand the boundaries of employment beyond the traditional confines of the formal sector, to include the informal as well as the non-governmental development sector – which in a recent survey was recognised as constituting a significant resource of societal capacity in South Africa today (Swilling & Russell 2002). South Africa's non-profit sector is worth R14 billion annually and employs more than 600 000 people, making the sector's workforce larger than other traditional economic sectors such as mining which employed 487 000 workers in 2001 (*Mail & Guardian*, 21 February 2003) According to the DoL, the development sector:

... describes a range of organisations that belong to either the public or private sphere of the economy but differ from classical private enterprises because they are not primarily dedicated to profit making for private shareholders: they may have economic, or social or cultural development aims, and of particular interest in this context, they can be used to provide skills development in conjunction with temporary job creation without displacing existing private sector activity. From the Government's viewpoint, initiatives for job creation in the development sector are less likely to displace existing workers than similar initiatives in the private or informal sector ... Development sector initiatives address infrastructural and poverty alleviation tasks that are outside the private sector market place and normally would not be undertaken without government intervention. (DoL 2000c)

Government's aim across this diversity of employment contexts would be to provide unemployed people with a combination of skills development and work experience (either through skills programmes or learnerships) in order
to bridge the gap for those unemployed who lack a track record of formal work experience and skills.

The Green Paper warns that, given the problems of similar schemes in the past, these initiatives must train people to be job-ready, they must run for a reasonable time span, they must be linked to related formal sector activity, and in many cases, they need to be complemented by further 'after-care' support (DoL draft version, 1996: 62). This would include further training, financial services (in the case of SMMEs), mentoring and strong links to local employment services.

Types of development activity cited by the DoL include: securing basic services and infrastructure such as the building of houses and accessing of water, upgrading of schools and roads; community-based public works; SMME initiatives linked to local opportunities; and youth community services (DoL 2000c).

The DoL proposes to intervene in the development sector, as defined above, in four ways:

- Through its employment services agencies in the provinces, renamed Labour Centres;
- Through its provincial offices, and in particular their social development initiatives;
- Through the NSF; and
- Through encouraging SETAs to take on board the task of training the unemployed and those in the informal sector.

A very encouraging development in 2002 saw 18 SETA-driven project proposals approved for funding by the NSF to a total value of R1 billion that aimed to benefit nearly 400 000 people over the next three years. Many of the projects are aimed at skills development and job creation for the most vulnerable in the labour market, for example: strengthening the microfinance sector; developing the capacities of small contractors in the construction industry; providing in excess of 70 000 former combatants with self-employment skills outside of the defence sector; increasing the number of ECD and ABET practitioners to work in these poorly-resourced corners of the education and training system; increasing the number and skills of small-scale miners in the mining industry; equipping workers in the informal taxi and small boat fishing industries with formal qualifications, business skills and the capacity to improve the quality of their service delivery; and finally, growing the number of SMMEs operating in the secondary agricultural sector, particularly those with the potential to export (DoL 2002b).

Many of the above projects have to do with SMME development. These initiatives are important because SMMEs constitute the large majority of enterprises in many sectors, for example, financial services, insurance, retailing, building construction, IT, media and advertising, services, tourism and transport. In fact, just under 72 per cent of all private sector enterprises in South Africa employ four people or fewer (DoL 2000b: 11). Many of these firms are in the formal sector and are high skill (financial services, IT, media and advertising), but many are informal and very low skilled (for example, in the transport, building, services and tourism sectors). The NSDS has set certain targets for the greater participation of these firms within the new skills development system. By March 2005 it is hoped that 20 per cent of small and very small enterprises will claim skills development grants (DoL 2000b: 11).

In seeking to do all of this, the government is sufficiently realistic that its policy is not seen as a magic wand for the removal of all deprivations facing vulnerable communities. Indeed, the Green Paper warns that:

... the Skills Development Strategy cannot achieve these objectives alone. The general economic climate, broader poverty reduction strategies, effective policing and changes in employment practices will all impact on the success of skills development in addressing these problems. (DoL 1997: 85)

Nonetheless, the Green Paper undoubtedly outlines a package of supply-side strategies that seek to ameliorate the lot of vulnerable groups which consciously strive to reduce the inequalities that exist between the core and periphery of South African society.

Increased consensus

A final characteristic of the new skills formation environment is the increased consensus and high levels of stakeholder participation and agreement – particularly in contrast to the high levels of distrust and conflict in the apartheid past. There are several dimensions to this increased consensus.

The key element is clearly the political settlement forged between the African National Congress (ANC) and the apartheid government in the period February 1990 to April 1994. Webster and Adler (1999) suggest that the political compromise forged in this period provided a mutually-beneficial 'class compromise' in the double transition of consolidating democracy alongside economic reconstruction: 'compromise requires a mutually shared sense of stalemate. It also requires parties to accept that the costs of not compromising outweigh the benefits to be had from standing firm' (Webster and Adler 1999: 2).

The negotiated settlement achieved in the period 1990 to 1994 did not only represent an end to war. It brought with it a necessary moderation of the key political propositions of the opposing parties in the South African conflict. The politics of reconciliation and consensus-building were most forcefully entrenched by the establishment of the Transitional Executive Council (including leadership from both the apartheid government and the ANC) in the period immediately prior to the elections of April 1994 and, more importantly, by the post-election formation of the Government of National Unity that consisted of the ruling ANC and the two leading opposition parties, the National Party and the Inkatha Freedom Party. Elements of the Government of National Unity continue today with Inkatha and Azanian Peoples' Organisation leadership still represented in the national Cabinet and with an ANC–National Party alliance governing the Western Cape province and an ANC–Inkatha alliance governing KwaZulu-Natal.

These more formal political developments had reverberations in the negotiations around a new training policy. As Chapter Two in this book has shown, the reform proposals of the apartheid government, released in 1991 as the National Training Strategy (NTS), were rejected by the mass democratic movement for several reasons. The key objections included the unilateral way in which the proposals were developed; the privileging of employer interests over other interest groups in civil society; and the absence of trade union representation on several of the key institutions proposed. However, the mass democratic movement did not simply reject the NTS, but negotiated for its resurrection as a continuing policy process with ANC and black trade union participation. This happened through a reconstituted NTB with representatives for the first time drawn from the black progressive trade union movement, Cosatu. The NTB then set up a task team and eight theme

committees with inputs from a wide array of stakeholders and individual experts. This consensual process was very successful, culminating in the National Training Strategy Initiative, which was published in April 1994.

The significance of the National Training Strategy Initiative was that it was the first multipartite stakeholder forum – including both the ANC–Cosatu alliance and government departments of the previous regime – to formally propose the creation of an integrated ET system. Reporting as it did at the exact moment of apartheid's demise in April 1994, the National Training Strategy Initiative was never formally adopted by the incoming ANC government. However, because of the multipartite consensus developed around its key proposals, its recommendations were taken forward by the newly-constituted DoL as part of its new policy development initiatives (Macun 2001).

The proposals of the National Training Strategy Initiative and the policy processes initiated by the DoL led to the publication of the Green Paper in 1997. The final phase of this consensual process were the negotiations over the details of the skills development strategy which occurred at the National Economic Development and Labour Council, itself a co-determinist body bringing together representatives of organised business, labour, community and development organisations and government. The National Economic Development and Labour Council has substantial influence on the formulation of economic and social policy. Both the *Skills Development Act* and the *Skills Development Levies Act* were subject to negotiations in this forum. As Macun (2001: 173) argues, this process ensured 'legitimacy, understanding and support from key stakeholder constituencies'.

A further area of improved co-determination is the tripartite or multipartite composition of the governing boards of all the new institutions, for example, the NSA and SETA governing boards. In addition, the new NSDS requires strong stakeholder input in the development and design of Workplace Skills Plans and Sectoral Skills Plans (DoL 2000a: 16, 36). In short, consensus and widespread support of the NSDS is viewed as the primary prerequisite for its eventual success:

If this is to be a *national* strategy it must be shared and owned by government departments, employers and the community, and by the organisations and structures that represent them. The targets,

too, must be commonly accepted. It is not enough that people know about them. There must be a shared commitment to their realisation and achievement. (DoL 2000b: 3)

The durability of this consensus has not been tested yet. It has only been two years since the start of the implementation of the NSDS. However, as mentioned earlier, there is little evidence so far that a paradigmatic shift has taken place in the approaches of employers to enterprise training. The extent to which this limits the feasibility of the NSDS will be discussed further in Chapter Ten.

Conclusion

The NSDS is a very ambitious attempt to undertake a dramatic transformation of enterprise training in South Africa. As Chapter Two highlighted, the new political order in April 1994 inherited an extremely poor skills regime based on voluntarism, poor quality and narrow employer-led definitions of skill. The NSDS seeks to turn all of this around through a new institutional environment where skill is viewed as a collectively-derived production input that the market mechanism on its own will not effectively achieve. A new institutional environment is proposed. This is structured around learnerships and the 25 SETAs, and places social obligations on all stakeholders to seek consensus on joint initiatives to upgrade the skills of the populace, including employed workers and the unemployed as well as first-time entrants in the labour market.

It is clear that the NSDS shares similar features with the high skill models of skill formation in Europe and East Asia as described by David Ashton in Chapter Four of this book. Whether its application in South Africa succeeds or not is a difficult question to answer here. The implementation roll-out of the NSDS has been too short for a critical assessment of its chances of success.

What is feasible at this stage, however, is to raise certain conceptual as well as structural and institutional constraints that may limit the successful implementation of the NSDS. This will be done in Chapter Ten, which concludes by suggesting appropriate amendments to the high skills thesis to make it more applicable to developing country contexts such as South Africa.

• Understanding the size of the problem: the *National Skills Development Strategy* and enterprise training in South Africa

Azeem Badroodien

Introduction

This chapter will explore the extent to which the ambitious goals of the National Skills Development Strategy (NSDS), as described in Chapter Five, are being realised. It does so by examining the findings and trends of six research studies or surveys,¹ conducted between 1999 and 2002, which have tried to capture volumes of training (of different sorts) in the private sector. The chapter suggests key indicators that characterise enterprise training in the country, indicators that will ultimately determine the success of the NSDS.

South Africa has certainly suffered from the lack of a coherent, consistent, national data collection point on skills training developments. In that respect, the data provided in recent Department of Labour (DoL) documents has become an invaluable source of information about training. Such DoL documents summarise the wealth of information located within the various Sector Education and Training Authorities (SETAs), information that will help in the future to understand the differences across sectors with regard to levels of provision, levels of employer participation neatly disaggregated by size and sector.

Unfortunately, SETA level detail remains unavailable for scrutiny and analysis. For this chapter a wider variety of sources were thus consulted to understand key features of training and training rates. And although each of the studies had their own unique limitations, there are no better, more comparable data sets presently available in the country. The chapter has three main parts: the first tracks the progress of the success indicators for the NSDS; the second focuses on features of training with regard to type and variance, size, sector, mode and duration; whilst the third explores the potential of the micro and (very) small enterprises (MSE)² sector, given the very different needs and characteristics of such firms when compared to larger enterprises.

Government-driven success indicators

Levels of training in South Africa are presently measured through skills levy payments and the disbursement of training grants to firms/companies that develop workplace skills plans. The DoL noted in its *Preliminary Annual Report* for 2001/2002 that a little more than R3.2 billion was collected from 120 225 firms through skills levies for the year 2001/2002.

Updated figures released by the DoL in *The National Skills Development Strategy: Synthesis Report* of November 2002 indicated that the total number of firms paying the skill levy had risen to 143 770 (DoL 2002a: 5). It was observed that approximately 10 per cent of firms in South Africa paid roughly 90 per cent of the collected skills levies (DoL 2002b: 16).

Of the total of R3.2 billion, almost R2 billion is available for grant disbursement and 87 per cent (R1.7 billion) of the available funds have already been allocated to SETAs. However, the disbursement of funds back to firms who train appears to be very slow. Only 21 per cent or 26 228 of the 120 225 eligible firms in South Africa claimed back levies by September 2002 through the accessing of skills training grants (DoL 2002d: 16).

Given that many other firms may be training workers but not yet either paying or claiming back their levies (thus treating the skills levy as a form of tax), and that others may be training workers but are not registered because their annual turnover is less than R250 000, it is not yet possible to accurately predict the number of workers presently being trained in South Africa.

However, the success indicators identified by the DoL to monitor the progress of the legislation and ensure that skills levels of workers are increased, serve as useful ways of understanding current skills training levels. It is notable in this regard that a number of the indicators are already close to success, while there are still significant gaps in others. Table 5 provides the list of success indicators published in the *National Skills Development Strategy: Implementation Report* of September 2002 (DoL 2002d) to be met by March 2005, and the extent of success achieved thus far (DoL 2002d: 3–12).

Importantly, while the skills levy scheme has made it possible that enterprise training can be measured in terms of the number of firms participating in the levy-grant system, this measuring mechanism remains somewhat inaccurate given the low percentage of participating firms and the predominance of large firms claiming back levies. Moreover, the success indicators only provide a partial picture of the much more complex training situation in South Africa.

Furthermore, the Human and Social Sciences Research Council (HSRC) study of 2000, the *Baseline Survey of Industrial Training in South Africa*, noted that the broad conception of the term 'training' (Kraak, Paterson, Visser & Tustin 2000: iii) in South Africa made it difficult to accurately predict enterprise training levels in firms. Indeed, without ways of measuring training activities against external standards, the term 'training' could easily be understood to include virtually any activity that involves one person inducting another into a given work environment or culture (McEvoy 2001: 19).

Also, two data problems need some elaboration. Firstly, DoL *Quarterly Synthesis Reports* tend to cite higher levels of training achievement and performance than are reported in this chapter. It appears that the DoL is adding up all training undertaken cumulatively as it takes place in each quarter over two financial years, resulting in exceptionally high aggregated figures that do not give an accurate sense of annual training achievement rates. The figures in Table 5 provide training data for a single financial year so as to achieve this important analytical requirement. A second data problem in Table 5 is that the percentages given by the DoL for small, medium and large firm training are not backed up by actual numbers of enterprises involved, grants awarded and trainees enrolled, so it is difficult to verify the validity of the percentages cited.

Six success indicators from the NSDS, 2002

The DoL has identified six key measures of progress for the NSDS. The indicators are discussed in Table 5, with commentary provided about their individual performance. The key observations here are that there has been

much progress in kick-starting a new and complex training regime in South Africa, and that reasonable progress has been made in actual training in certain limited areas. However, there is much work to be done in closing the huge training gaps and meeting the March 2005 targets as set by government in the NSDS. In that regard, the implementation momentum that has been generated to date, as reflected in the figures below, will be insufficient to achieve the skills development, employment creation and economic growth goals of the NSDS if they are not dramatically speeded up.

Indeed, the participation of employers in the levy-grant system remains extremely disappointing. Of the 208 697 employers who are required by the Skills Development Levies Act to participate in the levy-grant system by virtue of the size of their payroll, only 65.5 per cent of firms actually pay the levy as of September 2002 (DoL 2002a: 5). Amongst those 136 645 firms who pay the levy, only 14 261 grants were disbursed to them in 2002 (DoL 2002a: 10). These participation levels are inadequate if the NSDS is to have any real chance of success.

Indicator	Extent of success
<i>NQF Level 1:</i> 70% of workers must have at least a Level 1 qualification on the National Qualifications Framework (NQF) by March 2005.	<i>Background</i> : About 5.6 million workers presently have a NQF Level 1 qualification and a further 900 000 workers still need to be assisted in order to achieve this 70% goal. The DoL reports that a total of 170 061 workers participated in NQF Level 1 structured learning programmes from the first quarter of year 2001/2002 to the first quarter of year 2002/2003 (DoL 2002e: 8). <i>NSDS performance:</i> The progress so far constitutes 19% of the increase that needs to be achieved. Also, these trainees have not as yet completed NQF Level 1 training nor acquired the qualification level. They have merely begun such training.
Large firms: At least 75% of enterprises with more than 150 workers have to be receiving skills development grants by March 2005.	In March 2002 almost 67% of enterprises in this category were providing workers with skills training (DoL 2002d). It should be noted that although only 0.7% of all enterprises are large firms, they employ 42.7% of all employees (see Table 2).

 Table 5: Measures of progress against key success indicators from the NSDS, 2002/2003

Indicator	Extent of success
Medium firms: At least 40% of enterprises employing between 50 and 150 workers should be receiving skills develop- ment grants by March 2005.	By March 2002 about 38% of levy-paying medium-sized firms were accessing grants through developing workplace skills plans (DoL 2002d). Thus, this target is close to achievement.
Small firms: At least 20% of new and existing registered small businesses have to be supported in skills development initi- atives by March 2005.	Only 7% of levy-paying small employers were providing training in March 2002 (DoL 2002d). This small number provides a significant challenge for the NSDS.
Structured learning: A minimum of 15% of workers have to have embarked on a structured learning programme by March 2005.	<i>Background</i> : During the financial year 2001/2002, a total of 1 002 201 workers have participated in structured learning programmes. This is out of a total workforce of 9.3 million people (DoL 2002a: 9). <i>NSDS performance</i> : The above data suggests that roughly 10.7% of the total workforce have received some form of training in financial year 2001/2002 (DoL 2002a: 9) – that is, 67% of government's target of 15% has already been attained. Reports for the first two quarters of 2002/2003 indicate that 1 166 216 employees have been trained (DoL 2002a: 9). It is clear that the training rate is increasing significantly year by year. <i>Commentary:</i> 1 002 201 employees trained during 2001/2002 compares very favourably with the very low levels of training reported under the old apartheid training regime – which hit an all-time low of 152 870 persons in 1998 – representing a training rate of below 3% as a proportion of the total workforce in 1998. However, the apartheid era data reflects only officially-reported data, signifying a massive undercount of all unreported training. The NSDS data is more likely to peort total levels of training via SETA information systems. The reported structured training is also most likely to be of the variety that can lead to whole qualification acquisition and significant upskilling of the workforce along the NQF ladder.

Indicator	Extent of success
<i>Learnerships:</i> A minimum of 80 000 people have entered learnerships by March 2005.	<i>Background:</i> A total of 14 948 learnership agreements have been registered between April 2001 and June 2002, 10 277 of whom are people already employed and 4 682 new entrants into the labour market (DoL 2002e: 14). By March 2003, the number of learnerships registered had reached 23 517, with 8 159 of these learners previously unemployed. <i>NSDS performance:</i> The achievements obtained so far constitute 29% of the success indicator. It is not clear how many trainees have completed their learnerships and how many have acquired employment after training. <i>Commentary:</i> The achievements above need to be compared with training rates achieved for apprentices during the old apartheid training regime, where 16 577 apprentices were being trained in 1998. In contrast 23 517 learnerships and 10 872 apprentices (DoL 2002a: 17) were reported in 2002 (a total of 34 389 trainees). This represents a 107% improvement of training at this critical intermediate level.

Furthermore, understanding enterprise training in South Africa requires an analysis of the degree of variability in the volume and types of training on offer in South Africa. Factors such as the size of firms, the existing levels of available education and training, and technology change all determine in varying ways the degree and nature of enterprise training in the country. In that regard, the chapter focuses only on enterprise training provided for the currently-employed in South Africa (see Kraak in Chapter Five for an outline of the various categories of labour participants).

Key features of training in South Africa

It was reported in 1999 that there were approximately 900 000 enterprises in South Africa (Ntsika 1999: 4), although it appears that this refers to establishments rather than companies, the figure for the latter being significantly lower. Nonetheless, this is the most reliable figure we have and makes clear that the majority of enterprises fall into the survivalist (selfemployed), micro (only owner) and micro (1 to 4 employees) categories. According to the Ntsika figures, these firms constituted about 650 000 firms or about 72 per cent of the total number of firms in South Africa in 1999. If firms with between six and ten employees were included, then the micro and very small enterprise category (largely comparable with international notions of micro and small enterprises [MSEs]) constituted 92 per cent of all firms in the country (Ntsika 1999: 4–5). In 1999, the MSE sector employed about 28 per cent of workers in South Africa (Ntsika 1999: 4).

This can be contrasted with the 76 239 small, medium and large (SML) firms, which constituted just 8.4 per cent of the total number of companies in South Africa, yet employed 5.3 million workers or 72 per cent of the total workforce (Ntsika 1999: 5). Of the total number of SML firms, 2 785 large firms in the manufacturing, mining, finance and business services, and retail/trade sectors employed almost two million employees or 27 per cent of the total workforce in South Africa in 1997. Large firms constituted less than one per cent of the total number of the total number of enterprises in South Africa but employed about 43 per cent of the total workforce in the private enterprise sector (Ntsika 1999: 4).

Table 6 condenses the main data regarding firm size and employment distribution.

Enterprise size	Number of enterprises	Percentage of enterprises	Employment number	Percentage of employment
Survivalist (self employed)	184 400	20.3	184 400	2.5
Micro (owner)	283 300	31.2	283 300	3.8
Micro (1–4 employees)	182 800	20.2	565 200	7.6
Very small (5–10 employees)	180 000	19.9	1 068 400	14.4
Small (11–50 employees)	58 900	6.5	1 226 000	16.6
Medium (51–100 employees)	11 322	1.2	909 900	12.3
Large (100+)	6 017	0.7	3 159 900	42.7
Total	906 739	100.0	7 397 100	100.0

Table 6: Distribution of private sector enterprises by enterprise size and employment in 1997

Source: Ntsika 1999: 4-5

Table 6 highlights the challenge that is faced in getting a 'skills revolution' to permeate across South African industry. International evidence (for example, Johanson 2002: 63) suggests that larger firms are more likely to train. Whilst this may account for the majority of workers in South Africa, it does mean that a large number are likely to be excluded from changes in skills training,

locked as they are into MSEs, the vast majority of whom neither train nor participate in the levy-grant system.

Crucially in that regard, other than progress reports on success indicators and an overview of the shape of the enterprise sector, very little further analysis is available on training in the private sector in South Africa. However, results from five further training studies surveyed for this chapter do suggest key ways of understanding and capturing notions of training and training rates in South Africa. The various surveys indicate that the NSDS is unlikely to provide effective intervention in South Africa unless training is better understood according to size, sector, mode of training, duration of training, and race, gender and occupational segmentation.

Further, an aggregate training rate is understood as the average rate of training across the total employed population where both the size of firm as well as the levels of variance across economic sectors influences rates of training.

Size

Table 7 describes the predicted training rates of five surveys undertaken after 1999.

Training Rate	P-E Corporate Services (2001)	Human Sciences Research Council (2000)	First World Bank Report (2000)	Bureau for Market Research (2002)	Second World Bank Report (2002)
Estimated training rate for SMLs	91%	16%-44%	33%		
Estimated training rate for SMMEs				18%–29%	24%-30%

Table 7	7: Aggregate	training	rates	according	g to	five	entert	orise	training	surveys*
	1 188, 08,000				5.00	,,,,,	errer p			000000

Sources: Chandra, Moorty, Rajaratnam & Schaefer 2000a and 2000b; Kraak et al. 2000; Martins & Van Wyk 2002; P-E Corporate Services 2001

* The rate of training in Table 7 is calculated by dividing the number of workers trained by the total number of employed for any given sector.

Taken together, these surveys are broadly supportive of the international evidence that larger firms are more likely to train. Even within the SMME category there are size differentials. Chandra *et al.'s* study of formal SMMEs in Johannesburg, for instance, found that between 24 and 30 per cent of firms with five and more employees invested in training, but less than 10 per cent of firms with less than five employees (2000b: 25). Moreover, it is likely that the figures for informal enterprises will be lower.

Across the range of surveys, it would appear that the mean training rate for South Africa in reality will lie somewhere between 20 per cent and 30 per cent. Training does vary however between sectors, being higher than the mean in some and lower than the mean in others, as the next section illustrates.

Sector

There is significant training variance across economic sectors in South Africa. Some industries are characterised by labour-intensive, low skill and low-paid jobs; others like the wholesale and retail and financial services sectors require more high-level skills, while a sector like energy remains dependent on technically skilled artisanal and operative labour. In Table 8 the estimated training rate was determined by dividing the total number of persons trained by respective firms by the total number of persons employed in the various firms.

Economic sector/SETA	Training rate
Banking	64.2
Chemical industries	31.9
Clothing, textiles, footwear and leather	41.7
Construction	22.3
Energy	57.2
Financial and accounting services	56.6
Food and beverages	34.1
Forest industries	24.9
Information systems (IT), electronics and telecommunication technologies	35.8
Insurance	80.0
Manufacturing, engineering	34.4

Table 8: Percentage levels of training by sector

Table 8 continued.

Economic sector/SETA	Training rate
Media, advertising, publishing, printing and packaging	30.5
Mining	39.8
Primary agriculture	16.2
Secondary agriculture	14.8
Services	38.3
Tourism and hospitality	40.6
Transport	33.7
Wholesale and retail	57.0
Total	44.9

Source: Kraak et al. 2000: 45

Table 8 indicates very low training levels in the construction, agriculture and forest industries compared to high levels of training provided in the insurance, banking, energy, and wholesale and retail sectors. More training is thus provided in those sectors dependent on high and intermediate skills (Kraak *et al.* 2000: iii).

The quarterly reports from the DoL confirm this great variability in training rates. The average number of employers paying the levy during July 2002 to September 2002 was 65.5 per cent. However, seven SETAs registered that 70 per cent or more of their registered employers were paying levies (including wholesale and retail, manfacturing, secondary agriculture and chemical industries), whereas three SETAs reported that their average levy paying participation rates were well below 60 per cent, the lowest being the public sector SETA at 43.4 per cent. This poor and uneven participation rate is a major problem, which will require serious government intervention in the future (DoL 2002b: 6).

Mode of training – internal versus external

The training practices of firms in South Africa are informed by the types of training they choose to provide for their respective employees. Enterprises generally use three types of training, namely:

- External training;
- · In-house training by external trainers; and
- In-house training by company staff.

External training programmes are regarded as more appropriate when:

- Equipment is costly and risk of damage is high, thus requiring the use of special and expensive training devices;
- Numbers of trainees are small and their occupational levels high;
- Technology is new and there are few technical specialist trainers; and
- The primary concern is with the acquisition of knowledge rather than the application of skill (Greig 1997: 186).

In-house enterprise training programmes (whether provided by company staff or external trainers) are more prevalent when:

- The equipment on which training must be given is large, expensive and complex but not subject to risk of damage;
- Large numbers of employees have to be trained;
- Occupational levels of employees are relatively low in skill and knowledge content;
- The work is neither simple nor routine, is highly job-specific or industry specific; and
- The purpose of training is to improve the performance of existing supervisory or management staff, or to develop skills needed by staff for promotion (Greig 1997: 187).

Given the firm-specific nature of training, and the ways in which training varies according to worker skill levels and rank within respective firms and across branch locations, it remains impossible to describe in accurate quantitative terms the proportion of in-house versus external training in South African firms. This is further complicated by differences between the kinds of training provided within respective in-house or external training programmes for different occupational levels. Alternatively, Table 9 seeks to describe in percentage terms only the proportion of in-house versus external training provided in firms. It is clear, however, that the percentages provide very little insight into the preferred mode of training and in explaining which occupational groups receive particular modes of training.

In South Africa, there is certainly a high preference for the in-house mode of training. While large firms tend to use in equal degree both in-house and external training programmes (P-E Corporate Services 2001: 11), the majority of small, medium and micro firms use in-house training programmes when providing training (Chandra *et al.* 2000b: 25). This appears to be of particular

significance given the policy push towards whole courses accredited within the NQF system.

		SML firms	SMME firms		
	P-E Corporate Services	Human Sciences Research Council	World Bank Report 1	Bureau for Market Research	World Bank Report 2
In-house training	68%	63%	35%	10%	72%
External training	32%	Unavailable	24%	Unavailable	22%

 Table 9: Percentage of in-house versus external training per survey

Sources: Chandra et al. 2000a and 2000b; Kraak et al. 2000; Martins & Van Wyk 2002; P-E Corporate Services 2001

Duration of training

The HSRC study of 2000 raised deep concerns about the disproportionate amount of short courses offered as enterprise training. It noted that over two-thirds of in-house offerings in South African firms were less than five days long and generally focused on fulfilling particular internal training needs. In that regard, it was asserted that short courses are not a good substitute in the South African context for substantive 'long-course' qualification upgrading, as advocated in the NSDS (Kraak *et al.* 2000: 52; McEvoy 2000: 26).

Race, gender and occupational segmentation

Training in South Africa is still racially framed and very gendered. Many occupations remain male- and white-dominated. Table 10 reveals a preponderance of whites receiving training in high skills occupations. In 2000 about 71 per cent of employees trained in the managerial/professional category were white, and only 16 per cent were African (Kraak *et al.* 2000: 44–46). This finding was also evident in the World Bank Study of 2000 which found that 80 per cent of managerial and 70 per cent of professional and technical workers being trained by small, medium and large firms in the Johannesburg metropolis were white (Chandra *et al.* 2000: 40).

Occupations	Percentage	Gei	Gender		Race				
	trained	Male	Female	African	Coloured	Indian	White		
Professional and managerial	10.9	71.9	28.1	16.4	4.9	7.4	71.3		
Technicians	11.1	82.9	17.1	27.8	8.6	8.6	55.1		
Clerical/ administrative	23.2	41.2	57.9	30.9	15.8	15.3	37.9		
Service and sales workers	14.4	67.0	33.0	44.3	17.3	16.2	22.2		
Craft and related workers	11.4	93.5	6.5	49.0	8.8	2.6	39.6		
Plant and machine operators and									
assemblers	14.0	77.9	22.1	83.6	9.3	2.3	4.9		
Unskilled labourers	14.9	79.1	20.9	89.4	9.6	0.6	0.4		
Total	100.0	69.9	30.1	47.5	11.5	8.6	32.4		

Table 10: Summary of findings on enterprise training by occupation, race and gender

Source: Kraak et al. 2000: 42-46

Table 10 also indicates that the majority of those trained in semi-skilled operative tasks in 2000 were unskilled African workers. Only 5 per cent of those trained in lower level occupations were white, while 85 per cent were African (Kraak *et al.* 2000: 49). This finding was supported by the World Bank study of 2000 that noted that 81 per cent of plant operators and 91 per cent of unskilled labourers being trained in the Johannesburg metropolis were African (Chandra *et al.* 2000a: 40).

With regard to the training of women in enterprises in South Africa, Table 10 shows that women continue to dominate feminised jobs such as clerical and administrative positions (58 per cent) and are significantly underrepresented in the professional and management categories (28 per cent). At the lower skill levels only 7 per cent of craft workers and 17 per cent of the technical occupational workers being trained were women (Kraak *et al.* 2000: 48).

The potential of MSE training

Defining the MSE sector

Micro and small enterprises in South Africa can be broken up into two categories, namely:

- Formal sector small, very small, and micro enterprises;
- Informal sector small business enterprises that are mostly survivalist. This sector comprises two main categories of workers: self-employed workers and employees (those who work for 'self-employed' owners of firms) (Muller 2002: 14).

Whilst definitions of informality vary, registration, payment of taxation, firm size, turnover and technology level are typical elements of most definitions.

Training in the MSE sector

It has often been argued that the MSE sector is an important vehicle for resolving South Africa's long-term employment and poverty problems. However, there is a need to be clear about what is being claimed here. In particular, it is important to distinguish between employment and selfemployment dimensions of job creation. This has a number of implications for enterprise training initiatives in the sector.

The formal component

It is important to note that formal MSEs are rarely started up successfully by the young or the unemployed. This is illustrated by the World Bank study of 2000, which observed four trends among SMMEs³ in the Greater Johannesburg area in 2000, namely that:

- About 70 per cent of surveyed SMME owners had had previous formal sector work experience;
- Such owners only chose to start their own firms when a lucrative business opportunity presented itself;
- Of SMME owners, 12 per cent became owners when they joined the family business;

• Fewer than 5 per cent were unemployed and tired of searching for their first job when they started their own businesses. Very few owners of SMMEs were from the unemployed strata (Chandra *et al.* 2000b: iii).

Race continues to be a critical marker within the formal SMME sector. The World Bank study of 2000, for example, noted that the race factor was a particular and unique feature of the South African small business environment (Chandra *et al.* 2000b: iv). African-owned SMMEs were found to be the most severely disadvantaged within the sector, often encountering problems or drawbacks associated with apartheid-era attitudes (Chandra *et al.* 2000b: vi).

The World Bank study of 2000 observed that about 50 per cent of African, coloured and Indian SMME owners indicated in 2000 also that they could not borrow from a bank because of lack of collateral, the right kind of credit history or because they resided in an area deemed dangerous (thereby denying them the right to use their homes as collateral). Many such owners noted that they were further disadvantaged or prejudiced because of their low education and training levels (Chandra *et al.* 2000b: vi).

The World Bank study further noted while white-owned SMMEs were located across the range of economic sectors and occupations, about 64 per cent of African SMMEs were service-orientated. This was ascribed to the service sector typically requiring less business experience, shorter gestation periods and less investment capital (Chandra *et al.* 2000b: vi).

Evidence against the likelihood of successful youth self-employment is presented in the Bureau for Market Research (BMR) study, which reports that the majority of SMME owners were male and found in the age category of 35 to 45 years (Martins & Van Wyk 2002: xviii).

A key issue is the way in which SMMEs provide access to jobs. It was reported in the World Bank study that a large percentage of Africans in the semi-skilled category seemed to be accessing jobs more easily with SMME firms (Chandra *et al.* 2000b: 12). This is significant given the current low absorption of workers into the labour market. This suggests, further, that the impact of SMMEs on job creation can come more from successful enterprise growth rather than from the creation of new enterprises.

The informal component

Devey, Skinner and Valodia estimate that between 25 per cent and 30 per cent of those working in South Africa presently are engaged in the informal economy (Devey *et al.* 2003: 10). Furthermore, with 70 per cent of the population consisting of young people with limited skills and schooling, vast numbers of potential workers will be obliged to turn to the informal sector for economic survival. The sector will thus serve as an important access point for future employment. Individuals that engage in the sector will thus require training if they are to succeed in their respective jobs and positions (Martins & Van Wyk 2002: 6).

There are a number of trends that define the sector with regard to future training schemes:

- Informal employment is concentrated in the retail and wholesale trade with just over 50 per cent of all informal workers located in this sector of the economy.
- Employment in the informal sector is dominated by semi-skilled work such as shop work and craft-related work, and unskilled work described as elementary occupations.
- Only about 11 per cent of informal enterprises are registered with a SETA. This means that very few such enterprises can access skills training programmes through SETA funding and support (Devey *et al.* 2003: 11–13).

The contribution of the National Skills Fund

A very encouraging development with regard to SMMEs in 2002 saw 18 SETA-driven project proposals approved for funding by the National Skills Fund (NSF) to a total value of R1 billion. These projects are intended to benefit nearly 400 000 people over the next three years. Many of the projects are aimed at skills development and job creation for the most vulnerable in the labour market, for example:

- Strengthening the micro-finance sector;
- Developing the capacities of small contractors in the construction industry;
- Providing in excess of 70 000 former combatants with useful selfemployment skills outside of the defence sector;

- Increasing the number of Early Childhood Development and Adult Basic Education and Training practitioners to work in the poorly-resourced corners of the education and training system;
- Increasing the number and skills of small-scale miners in the mining industry;
- Equipping workers in the informal taxi and small boat fishing industries with formal qualifications, business skills and the capacity to improve the quality of their service delivery; and finally,
- Growing the number of SMMEs operating in the secondary agricultural sector, particularly those with the potential to export (DoL 2002c).

Conclusion

The key observation about the new NSDS institutional regime is that it has great potential to reverse the low skills levels of the past few decades in South Africa. The greater networking between employers, education and training providers and government departments that is at the heart of the new institutional regime for skills formation should facilitate the participation of individual employers and hopefully increase their investments in and coordination of skill formation in South Africa.

It can be argued that as more and more firms participate in enterprise training and as more funds become available for training, that lower level staff invariably gain greater access to skills training programmes and so increase their chances of securing higher-level employment. The key problem in South Africa though is that while a fair degree of enterprise training has clearly been taking place in South Africa in the period 1998 to 2002, there remains very low employer participation in training.

Furthermore, firms that train in South Africa seem to prefer in-house training, especially for lower skilled workers. Given that such training is generally of short duration and tends to focus on basic workplace competence rather than high levels of skills development, unstructured training could work against the overall goals of the NSDS in the long-term.

Finally, current training practices within firms in most high skill economic sectors seem to reinforce key racial and gender characteristics of the segmented labour market of the apartheid era (see Chapter Two). One of the

key purposes of the NSDS was to undo the systems of training that reproduced working cultures and networks of the past. This is perhaps the most disconcerting observation on current training practices in South Africa.

Certainly, if the NSDS is to make a difference, it will require greater state intervention to turn around the structural inequalities in the labour market and the 'low skill' impediments in the new skills regime. It will also need a greater commitment from employers to view training as an asset that can contribute to increased productivity and growth, and not simply as a burden which negatively impacts on cost structure, which is how the current training dispensation is commonly perceived amongst many employers. The task of implementing a new skills regime in South Africa has certainly not yet made huge leaps forward, but it has begun.

Notes

- 1 Recent documents emanating from the DoL are regarded here as one source or study.
- 2 There is considerable definitional inconsistency and confusion in this area, which is reflected in the different definitions used by the surveys that were consulted for this chapter. In South African official definitions: micro and very small would cover firms of size 1 to 10. Including small takes the definition to size 50; whilst the catchall South African definition of small, medium and micro enterprise (SMME) includes firms with up to 100 employees.
- 3 The category SMME is used here as this reflects the terminology of the World Bank and BMR reports.

The state of the South African Further Education and Training college sector

Simon McGrath

Introduction

In the previous two chapters, Kraak and Badroodien took us into the world of contemporary South African skills development, as seen from the perspectives of Department of Labour (DoL) policy and enterprise-based training. In this chapter, I want to develop this story further through an exploration of the relationship of those elements of the story of skills development with policy and practice surrounding public Further Education and Training (FET) colleges led by the Department of Education (DoE). This analysis will show the emergence of these policies and practices and highlight key strengths and weaknesses of the current position. Most importantly, it will point to the very serious weakness in policy coherence across FET-skills development. It will show that this is not just between the two policy processes of DoE and the DoL, but that it also includes the policy development processes of bodies set up jointly or separately by the two departments, including the South African Qualifications Authority (SAQA), the Sector Education and Training Authorities (SETAs) and Umalusi, the Council for General and Further Education and Training Quality Assurance.

Before embarking on this analysis it is important to be clear about some of the issues the chapter will not discuss in any detail. As I will argue below, in spite of considerable borrowing from neo-liberal ideas about college transformation, the policy and interests of the DoE remain largely focused on the public sector and neglect the development of private providers. I will follow this approach. Whilst research has begun on the nature of private providers

(Akoojee 2003), it remains at a very early stage and it is not easy to address without further empirical work.

What I mean by FET is also important. Strictly, FET encompasses all provision at Levels 2 to 4 on the National Qualifications Framework (NQF). Some of this is more relevant to the previous two chapters. However, the majority of such provision takes place in the school sector. This is outside the scope of this chapter and the book as a whole. There is an ongoing process of curriculum development for the school-based elements of the proposed FET Certificate that seeks to deal with the continuing role of schools in vocational education and training. This will be touched on briefly later. However, the focus of this chapter is squarely on the policy process that led to the promulgation of 50 new FET colleges in 2001 (DoE 2001) and on practical developments within these colleges. It is in this restricted sense that I will use the term FET in this chapter.

A very brief history of the South African technical college sector

Badroodien, in Chapter One, argues that technical education in South Africa originated in a desire to have coloured workers do an increasing element of the craft work in the Cape, albeit often at semi-skilled levels. However, with the mineral revolution of the late nineteenth century, the formality and racial composition of technical training shifted. Although much of the skilled labour for the rapidly-industrialising South African economy was supplied by immigrants from Europe, Chisholm (1992) and Badroodien outline how formal provision for indigenous whites developed in the early part of the twentieth century.

Particularly after the *Apprenticeship Act* of 1922, the technical college sector was expanded and further formalised to provide theoretical training for those already engaged in practical, on-the-job learning in apprenticeships. The college sector thus became tightly aligned with the needs of industry in a racially-defined model. It also came to reflect a specific set of skills and knowledges for a particular set of crafts that owed much to the historical development of craft training in Britain (Gamble – see the next chapter).

By the 1960s a significant shift of white labour into management and service employment led to growing pressure on the colour bar in the workplace, and

on the technical college sector (Chisholm 1992). Chisholm shows how a set of leading metropolitan colleges were allowed to begin to move into the tertiary sector in the late 1960s through the *Advanced Technical Education Act* of 1967, resulting in the emergence of technikons. By the early 1970s, the moving upwards of the colour bar and the 'white flight' from craft work led to a growing corporate investment in technical training for blacks. However, prior to the *Manpower Training Act* of 1981, Africans were excluded from apprenticeship. Moreover, numbers of black apprentices never became large and colleges remained racially segregated. At the same time, there was a growth in non-college provision in the homelands in manpower centres and other institutions that were not part of the national certification system of the college sector.

The increasing delinking of colleges from apprenticeships was highly significant. The older white colleges' historical articulation with employers declined, whilst many of the newer black colleges never had such links, a situation that was exacerbated by the location of a number of colleges in homelands far from industry. This situation worsened as the numbers of indentured apprentices began to fall in the second half of the 1980s.

By 1994 the college sector remained racially fragmented. Colleges were weakly linked to the labour market. Many students had no access to practical training. As a result, South African colleges increasingly resembled their counterparts across Africa, with a major problem of graduate unemployment (King & McGrath 2002). Of course, this problem was not primarily of their making, being reflected in the broader global crisis of youth unemployment.

Analysis of policy developments since 1994

Although the college sector has not received the same attention as schooling, higher education or, even, skills development, there has been a steady process of policy development over the past decade. The process began with a report by the National Committee on Further Education (DoE 1997), followed by a Green Paper (DoE 1998) and White Paper (RSA 1998a), culminating in an Act (RSA 1998b). Subsequent to the new legislation, the DoE has also developed an implementation strategy (DoE 1999) and a landscape document (DoE 2001). I have discussed many of these in considerable detail elsewhere (for example, McGrath 2000; King & McGrath 2002) and return to them, with a

focus on small, medium and micro enterprises (SMME), in Chapter Nine. Therefore, I will not provide a step-by-step description of their development and detail. Instead, I will attempt an overall analysis of this policy process.

The South African FET policy debate clearly mirrors international debates in a number of key ways (King & McGrath 2002; McGrath 2003a). At the most general level, it displays a tension between a neo-liberal discourse of college transformation into autonomous, efficient and market-led institutions serving the needs of industry and a continuing espousal of broader educational values around learning, personal development and citizenship.

The language of FET policy throughout the documents listed above draws heavily, though almost always implicitly, from the dominant neo-liberal discourse about college transformation. The broad transformational challenge for colleges is located within an assumption that South Africa must respond through its educational institutions to the pressures of globalisation. The heart of such a response is held to lie in greater national competitiveness. This, in turn, depends on better skills development. The international argument that public providers are not delivering against these goals is taken for granted. This leads policy to propose ways of making providers more efficient and more responsive to the needs of industry.

However, whilst it has appropriated this language from neo-liberal sources, the DoE remains a firm believer in the merits of public education over private. Although private FET is accepted as part of the landscape, it is clear that the DoE remains focused on a reworking of the public, not an encouragement of the private. Thus, the greater autonomy given to the new merged colleges, with their Chief Executive Officers (CEOs), is constrained by their continued accountability to both national and provincial FET officials.

Equally, the economism of the policy process is superficial in important ways. Although the accepted wisdom of globalisation and competitiveness was adopted, the policy process failed to ever develop a clear picture of what specific types of skills the new colleges were to deliver. There is no clear analysis of South Africa's overall skills needs, nor of what this amounts to at the level of intermediate skills. The role of colleges in promoting selfemployment or basic rural skills development is also left undeveloped and uncertain. Crucially, the last decade has seen an effective moratorium on curriculum development for the college's flagship National Certificate programmes. It is still unclear when these will become NQF-aligned and how they will respond to the above issues about the economic role of the college sector. As Gamble cautions in the next chapter, it is dangerous to assume that colleges can unproblematically shift to developing skills and knowledge in new curricular areas given the very specific groundings of skills and knowledge in practices within different sectors.

The role that colleges can play in community development also remains underdeveloped. Here, the process appears to have been distorted by a mid-1990s debate around the desirability of adopting the American community college notion (McGrath 1998 and 2000). In the defeat of that notion, the continued weakness of the Adult Basic Education and Training (ABET) sector, and the weakness of DoE–DoL relations, there has been an unfortunate constraint to development of a worked-out vision of colleges as key providers of skills development at all levels, particularly in more rural locations.

In spite of the neo-liberal tone of much of the language of FET policy, the DoE has retained a strong belief in the broader purposes of FET as education. The Department is strongly of the view that FET must be educationally rigorous and must build learners as individuals, members of communities and as citizens.

However, the development of this educational vision also remains frustratingly limited. Although there is a clear commitment to building academic support systems and strengthening learners' English, mathematics, science and technology capabilities, the lack of progress in developing the new college-oriented FET Certificate makes it impossible to judge the depth and power of the Department's educational vision for the sector. The relationship of the college FET Certificate to those based in schools, and to awards certified by SETAs, is an issue I will return to at later points in this analysis.

There is also considerable uncertainty about the extent to which colleges should be encouraged to be a second-chance route to higher education. This is already happening in practice as a number of college graduates move on to technikons, in particular. Equally, it is happening in the sense that college programmes at N4 to 6 are officially classified as higher education. However, there has been a lack of detailed consideration of the benefits and problems likely to accrue from such progression and how it can best be managed and nurtured. FET policy clearly aims at building responsive public institutions that should address education and skills development goals for both individuals and industry. This marks an important step forward in the development of the FET sector. The new policy has spawned 50 new institutions that are charged with delivering on these goals. However, as I shall argue in the rest of this chapter, the ability of these colleges to deliver is affected both by their own internal challenges of quality and by the uncertainties provided by FET policy and its limited articulation with other relevant policies. I turn now to a consideration of college quality.

A critical perspective on the quality of FET colleges at the point of merger

Some pointers from the quantitative data

The above discussion of the neo-liberal turn in the FET sector highlights the growth of managerialist and technicist understandings of the functions of the sector. Allied to this is a heightened emphasis on quantitative measures of college performance. Whilst it is impossible to conceive of quality in simply quantitative terms, it is clear that a series of quantitative indicators have received increased attention as part of the attempt to analyse and improve college performance.

Arising out of current policy concerns, the following are important quantitative indicators of how the South African college sector is performing:

- The number of learners served by the system, disaggregated by race and gender;
- Their distribution across learning programmes;
- The number of teaching staff, disaggregated by race and gender;
- Pass rates;
- Throughput rates (reflecting the proportion of those initially enrolled who complete successfully);
- Employment rates; and
- Cost per learner (disaggregated by programme).

The most recent statistics collected by the National Business Initiative (NBI) for 2000 (Powell & Hall 2002), suggest that colleges have considerable room for improvement. The overall pass rate nationally stood at 53 per cent in 2000

and throughput rate at 47 per cent (Powell & Hall 2002: 77).¹ Whilst the student body has shifted strikingly to reflect overall national demography quite strongly (for example, 13 per cent of students were white; 79 per cent African); white staff still represented 51 per cent of the total numbers (derived from Powell & Hall 2002: 88–9). Gender disparities continue to be stark. Only 38 per cent of learners were female, falling to 18 per cent in Engineering Studies (Powell & Hall 2002: 90–1). In contrast to the race statistics, it is in staffing that more gender equity appears, with women comprising 44 per cent of the academic staff (Powell & Hall 2002: 88).

However, there are at least two issues with these statistics. First, the NBI was unable to get data for some of the most important indicators, such as cost per learner and employment rates. From interviews at college level for the Support to Education and Skills Development (SESD) Programme,² it appears that the former is an area of relatively good performance in international terms. The latter is far harder to judge. A survey of the 1999 cohort of graduates from nationally-accredited college courses at the FET level reveals that only 34 per cent were employed or self-employed two years later (Cosser 2003: 48). It is difficult to interpret how bad this figure is. The same study reveals that a further 35 per cent of this cohort were engaged in further studies (Cosser 2003: 38). It is likely, but not certain, that much of this further study is motivated by high unemployment levels, but it also appears that employers prefer students with N4 to N6 qualifications (Maja & McGrath 2003). If we look at those who declared themselves to be neither working nor studying, then the figure of 31 per cent is slightly better than the overall unemployment rate of 35 per cent for new matriculants entering the labour market in 1999 (McCord & Bhorat 2003: 16). Whilst there is clearly a need for employment rates of college graduates to increase significantly, it could be argued that colleges are doing as well as the labour market allows. However, this is a proposition in need of far more rigourous testing.

Second, recent fieldwork in colleges for the SESD Programme suggests considerable college-level dissatisfaction with the quality of the data presented in the 2002 *Quantitative Overview*. Nonetheless, these statistics are a valuable starting point for analysing the state of colleges at the point of merger. The greater challenge, however, is to develop a more complex picture of the quality demands on colleges and a sense of where these institutions are positioned in

relation to these. This is what the next section of the chapter will attempt to do.

Building a more complex picture: what are the key questions about college quality?

To these quantitative indicators of college performance, I want to add a series of five questions that need to be addressed in terms of current college quality and strategies for quality improvement in the sector.³ It will be clear as I discuss these that the responsibility in each case does not lie solely with college management and staff.

1: Are colleges responsive enough to what the labour market needs?

As I have argued already, colleges are widely criticised for their alleged weak responsiveness to the needs and realities of the labour market. The evidence here suggests that there is indeed a significant problem in this regard. However, it is important to consider this somewhat more carefully than is often done. Responsiveness is closely related to employability in the contemporary discourse about college quality (McGrath 2003a). Employability suggests that colleges should be doing more to improve labour market outcomes for their students but implies that there is also a labour market demand element to the equation. Thus, quality issues about responsiveness and employability tend to shift from a direct measurement of placement rates (important though this is) to a series of other, proxy, measurements.

First amongst these is the nature of colleges' relationships with employers. It is assumed that if colleges have better communications, and ideally partnerships, with employers then they will be better able to meet employers' needs and to ensure that their programmes meet employers' needs. Elements of a quality relationship here include an active role in providing in-service training for employees, as well as the traditional apprenticeship and pre-service type of programmes; sharing of facilities and staff; and active engagement in college operations through participation in councils, sponsorship, and so on. However, it is clear that colleges are not the only actors in building such quality relationships. Maja and McGrath (2003) highlight the responsibilities of employers in this regard. There is a danger that many employers are only too happy to make demands of colleges without actively seeking to build good and mutual relationships, as has been found in Britain (Wolf 2002; Unwin 2003).

Currently, there also appears to be a particular issue about curricular responsiveness. A number of colleges appear to be responding to industry needs by adopting qualifications established by SETAs. However, it is unclear whether such qualifications will be seen as sufficiently educationally grounded by the DoE when it produces its own FET Certificate qualification. College responsiveness to industry, therefore, may be constrained by policy decisions taken by the DoE about an appropriate curriculum.

Second, there is a growing concern that colleges should address the needs of the SMME sector and, particularly, should focus on self-employment (see Chapter Nine and Gamble 2003b). However, international experience (King & McGrath 2002) suggests that there may be tensions in trying simultaneously to meet the needs of wage employment and self-employment. Moreover, it is clear from international evidence that placement in successful and sustainable self-employment is very unlikely for those leaving college, given the importance of factors such as experience, networks and capital (King & McGrath 2002; McGrath & King 1995).

Third, it is important that colleges also serve community development needs. Altman and Meyer (2003) argue that an export-led growth strategy should be coupled with a focus on expansion of employment in non-tradeable goods and services and basic needs. It is important to consider, therefore, what role colleges can play as skills providers in building employment and incomes in the lower reaches of the economy. However, as Badroodien (2003) and Gamble (2003b) both caution, there is a danger of this becoming the sole focus of some colleges or campuses, potentially in ways that reproduce older racial inequalities (Badroodien 2003).

In a seven-country study of vocational education and training, Crouch, Finegold and Sako (1999) argue that a similar tension between addressing youth unemployment (related to the SMME/community focus) and the needs of the knowledge economy (related to industry responsiveness) pulls colleges in conflicting directions but tends to leave them addressing only the first.

Fourth, colleges need also to be articulated with key elements of industrial policy. There has been considerable interest in South Africa in issues of spatial development. A key role has also been identified for SMMEs in the area of

business linkages with large, established firms (King & McGrath 2002). Skills are seen as an important constraint on developments in these areas, so it is relevant to ask what colleges are, and can be, doing to support such strategies. Such a focus has not been adequately developed in policy and practice.

Fifth, one of the widely-accepted roles of colleges internationally in placing students into employment lies in the effective operation of guidance and counselling systems. Are colleges doing enough to give learners good advice and sound information about possible employment opportunities, both as they enter colleges and as they prepare to leave them? This has been a particular area of college weakness (Cosser 2003; King & McGrath 2002) although it is now receiving attention (Gamble 2003a).

These challenges for colleges raise issues about the adequacy of institutional resourcing in order for them to meet such demands. They also point to the important roles of other stakeholders, of other government departments and of policies in making it easier for colleges to maximise the labour market and development relevance of their activities (Gamble 2003a; McGrath 2003b).

The imperative that colleges should make their learners more employable also raises another set of crucial questions about the measurement of the quality of employment achieved and its timing/duration. Should the focus be on getting any job, or should there be an additional concern with the relevance of the job to the training, or with the wage level or occupational category? What about selfemployment? Should all those self-employed also be included or, again, should there be some distinction made about the quality of the self-employment?

2: Do colleges have sufficient information on which to base decisions?

All of the above assumes that colleges have a good evidential base on which to make decisions. However, this cannot simply be assumed. It is important to ask whether colleges have effective management information systems. Crucially, colleges need to know where their graduates are going and how they are faring. One possible element of this is a programme of tracer studies. In all of this, it is likely that the better linkages are to local employers, the better information colleges will have. However, for colleges in more rural parts of South Africa, there remains the likelihood that graduates will migrate to one of the main industrial centres in search for work.

3: Are colleges doing enough to provide quality learning?

It seems obvious that quality learning will have a positive impact on labour market insertion, although there is a clear danger in making the linkage too simple, given the range of other factors that can intervene. Moreover, quality learning is clearly central to any educationally driven vision for the FET sector. It is important, therefore, to consider what colleges are doing to promote quality learning.

First, the nature and quality of staff and their teaching are important factors in quality learning. The qualifications of staff and the resources that they are given to support their teaching are clearly crucial. However, it is apparent that new pedagogical and curricular requirements are placing new demands on lecturers that mean that qualifications are a poorer than usual proxy for quality. It is a matter for empirical testing whether new modularised and outcomes-based approaches actually are improving learning. Even if they are, then it is necessary to interrogate whether staff are developing the relevant skills for the new approaches. Colleges are being asked to take on far more curricular responsibility than before. Thus, it becomes necessary to ask whether they have the resources, skills and experience to do this well, and whether there are appropriate staff development strategies in place to support them. It is apparent that the NQF has generated huge amounts of 'staff development' but not that staff capacities to provide quality learning opportunities are greatly increased.

Second, there are concerns about whether academic support programmes are in place and are functioning adequately (Gamble 2003a). How do colleges support the achievement of core educational goals? How are they dealing with the challenge brought by the reality that the vast majority of learners are learning in a second language? How are they dealing with the historical problem of poor Mathematics and Science attainment amongst college entrants? Are colleges explicitly trying to develop a set of core skills for life and work, and should they be?

Third, one of the perennial criticisms of colleges after the decline of apprenticeships is that they have an inadequate balance between theory and practice. Even though survey evidence suggests that employers (Maja & McGrath 2003) and graduates (Cosser 2003) are generally satisfied with the balance, it does seem clear that many colleges could improve their practical facilities and programmes.

Fourth, colleges internationally have been faced with a shift in their clientele. The issue of a preponderance of second language speakers has already been raised but it is important to consider the particular needs of other segments of the new FET college learner body. Colleges are being encouraged to increase female enrolments in non-traditional areas. However, there is a need to examine what resources need to be devoted to this and how important changes in attitudes of lecturers and male students will be. The *National Skills Development Strategy* (DoL 2001a) commits the Government to meeting a target of disabled people comprising 4 per cent of all those in structured learning. It is important, therefore, to consider what role colleges are playing in this regard. The DoE has been at the forefront of South Africa's official response to HIV/AIDS and it is relevant to consider what colleges are doing both in terms of supporting learners who are HIV positive and in the way of HIV/AIDS prevention programmes. Evidence to date suggests that there is still only the beginning of a college-level response (Gamble 2003a).

It is also important to remember that all these dimensions of better quality bring with them time requirements. Is there any space in the college timetable for such things as the development of information and communication technology (ICT) skills or for additional language programmes?

4: Are colleges adequately resourced and maintained?

All of the above necessitate that colleges are adequately resourced and maintained. It becomes important to analyse whether colleges are adequately funded. Clearly, this depends in large part not on the colleges but on the DoE and the provincial departments. However, as I noted earlier, the discourse of efficiency brings with it a heavy emphasis on cost recovery and income generation. Are South African colleges doing enough to generate income? If not, can they increase income without impacting negatively on learning outcomes? The international evidence on training with production, for instance, suggests that there are considerable dangers in emphasising activities that generate income without regard for what they do to learning processes (McGrath 2002). If colleges increasingly do have more complex income and expenditure flows, then it will be essential that adequate financial systems are developed to manage these.

The question about the adequacy of practical training, noted above, relates intimately to that of the adequacy of equipment. It is widely argued that rapid technological change has made colleges increasingly irrelevant to the labour market as their equipment becomes increasingly outdated (for example, Johanson & Adams 2003). However, it is important to ask how valid and serious such a criticism is in the South African context. Whether learners need the latest equipment in order to learn the basic principles and techniques of a trade, depends on the extent to which new tools and techniques are revolutionary rather than evolutionary. Nonetheless, it is important to examine whether colleges' equipment is fit-for-purpose. Many colleges have been undersupplied with laboratories and workshops, but this is not a universal situation (Badroodien 2003; Gamble 2003a). Again, it is important to explore the quality implications of the presence/absence and quality of such facilities.

There has been a growing international emphasis on the importance of new learning approaches and skills for vocational education. Learners are being encouraged to develop skills and attitudes of lifelong learning. ICTs are increasingly seen as important both as an area where skills need to be developed and as a tool for more effective learning. All of these imperatives suggest that colleges need to develop new facilities such as computer laboratories and libraries/resource centres. These are valid elements of judging college quality but it is also important to ask whether colleges are being adequately supported in developing such facilities.

5: Are colleges sites of good governance?

Finally, I want to raise a set of questions about the governance quality of colleges. Here I am grouping together a set of elements that have discrete but interlocking operations. The newly-merged colleges face a crucial challenge in becoming new, merged institutions in reality as well as on paper.

For this to succeed, the leadership role of the new CEOs will be crucial. In keeping with neo-liberal thinking about colleges, they have been given far greater autonomy than was exercised by old-style rectors. The way that they use this will be crucial for college performance.

The management teams that are built around these CEOs will also be crucial. They are likely to have to play an important part in building responsive
relationships with external players and in building a common identity between campuses. Exploration of the functioning of management teams, therefore, becomes an important measure of quality (Gamble 2003a).

The newly-constituted college councils also have a central role in guiding the development of the new colleges. How these councils function; their practical as well as symbolic representativeness; and their ability to ensure transparency and due process will also shape college quality profoundly. The role of staff and learners in the establishment and operationalisation of college vision and mission are also important tests of quality (Gamble 2003a).

Greater college autonomy is seen by some authors as a measure of quality (for example, Johanson & Adams 2003). However, this issue is far more complex than neo-liberal dogmatism suggests. It is important to balance autonomy against the legitimate concerns of provincial and national departments that colleges should contribute to overall strategies for education, skills and development. Where college autonomy takes them into undesirable levels of competition and short-termism, and away from national priorities, then it seems perverse to see it as a sign of quality. However, this is what has happened in Britain (Unwin 2003; Wolf 2002).

Broader issues of policy coherence and institutional relations

The ability of colleges to deliver quality learning and promote quality labour market outcomes is affected profoundly by the actions of the state. Policy coherence, resourcing and facilitation of learning and knowledge sharing across the sector are areas where the state can play an enabling role, but also where it can undermine quality. Employers and communities can expect much from colleges, but also need to address the roles that they can play in supporting college quality and relevance.

A number of points made already in this chapter relate to one of this book's major themes, that of policy coherence. I want now to bring these points together to look more critically at the extent of policy coherence around FET and how this is affecting practices.

As the previous two chapters showed, the challenge of intermediate skills

development in South Africa is a matter that cuts across the mandates of the DoE and the DoL. However, the creation of the NQF and SAQA was meant to ensure coherence in such areas. Nonetheless, it is apparent that policy coherence is weak.

Although the FET legislation allows the possibility for colleges to access the DoL's NSF, there continue to be serious problems here. Public colleges are being hampered in accessing these funds and in delivering learnerships. It remains unclear whether they can use existing staff and resources to deliver such programmes or whether this leads to them being paid twice by different parts of the state for the same resources. Although the colleges are potentially the key public provider institutions for delivering on the NSDS, there is a widespread perception that the DoL has not sought to privilege their role, and, indeed, that it prefers to use private providers. In Chapter Nine, I will argue that there is a specific non-coherence issue around skills development for SMMEs, although practice here does appear to be running ahead of policy.

I have already mentioned the emerging policy tension around the college version of the proposed FET Certificate. The NQF was built on the notion that all awards at a particular level were equivalent. In order to promote this, it made it clear that all awards needed to have core skills and general educational content embedded within them. However, there is a growing sense that many of the awards already developed by SETAs and accredited by SAQA at NQF Level 4 contain less educational content than is deemed appropriate by the DoE. This issue has already surfaced in comments from the DoE that all awards should include development of competence in two languages rather than only one, as is the case in some learnerships. As the DoE begins to develop the college version of the FET Certificate, this disagreement is likely to take on great significance for the college sector. Potentially, colleges may find themselves being pulled two ways: towards an educationally-oriented set of qualifications developed by their core funders in the DoE; and towards a set of more training-like certificates offered by the industries to whom they are supposed to become more responsive. Moreover, disagreements in this area are also likely to highlight and legislative inconsistencies around the relative roles of SAOA, Umalusi and the SETAs.

The role of public colleges as lead providers of intermediate level skills development is made even more crucial by evidence that suggests that

technikons are reducing their emphasis on technical awards at NQF Level 5 (Subotzky 2003), apparently due to academic drift, which the current National Plan for Higher Education is only likely to exacerbate. Colleges have been important actors at this level through N4 to N6 programmes. However, official policy statements from DoE encouraged colleges to reduce their delivery of these programmes as they were seen as part of higher education. Whilst it appears that the Department is not acting upon this recommendation, it is apparent that there is still a crucial boundary issue between NQF Levels 4 and 5 (between FET and Higher Education and Training) that needs to be resolved in order for colleges to have a clear mandate. This does not only relate narrowly to issues of skills development but also to the role of colleges in preparing learners for higher education.

The relationship of FET colleges with the school system also contains problems of policy uncertainty. Colleges are essentially post-school institutions and the vast majority of their learners have completed Grade 12. However, the principal exit certificates they present are at the same NQF Level 4 as schools. This leads to two key issues. First, how can equivalence between school- and college-oriented versions of the FET Certificate be developed and managed? Second, how should progression from school to college be viewed? This leads on to three subsidiary questions. Does it matter that the sense of progression contrasts with their location at the same point in the NQF system? How far do colleges have to serve as remedial institutions for the failures of schooling? What should be done about the existing provision of college-like curricula in the school sector? That all of these questions are pertinent points to the limits of policy coherence within the larger FET system.

Conclusion

FET policy has developed a new institutional landscape in which 50 new nonracial colleges show signs of progress towards education, training and development goals. However, the policy development process leaves unanswered a crucial set of questions about the focus of these institutions and about their coherence with other elements of the education and training landscape. Without clear and consistent answers to these questions, the future progress of the colleges and of intermediate skills development in South Africa is made even more challenging and uncertain.

Notes

- 1 This is for DoE-recognised courses at the FET level.
- 2 This is a joint DoE–Danida programme where the HSRC is playing a monitoring and evaluation role see Gamble 2003a.
- 3 These qualitative questions are influenced by discussions with Bent Holtzmann and Jeanne Gamble leading to a set of indicators for the SESD Programme (see Gamble 2003a).

A future curriculum mandate for Further Education and Training colleges: recognising intermediate knowledge and skill

Jeanne Gamble

Introduction

A successful Further Education and Training (FET) system will provide diversified programmes offering knowledge, skills, attitudes and values South Africans require as individuals and citizens, as lifelong learners and as economically productive members of society. It will provide the vital intermediate to higher-level skills and competencies the country needs to chart its own course in the global competitive world of the 21st century. (RSA 1998a: 14)

This chapter addresses the nature of intermediate knowledge and skill. It is particularly concerned with issues of curriculum in Further Education and Training (FET) colleges, given that colleges are currently being required to move away from what they have traditionally done and take on a much broader curriculum mandate. At a time when the high skill–low skill dichotomy occupies centre stage in economic and educational debates concerning the links between modern education and training systems and modern capitalist economies (Ashton & Green, 1996; Brown, Green & Lauder 2001), little is being said about what intermediate knowledge and skills might mean in this new dispensation. Are they lower-level versions of high skills, or are they higher-level versions of low skills? Do they exist somewhere in the middle as a route from one to the other, or do they stand in their own right? Answers to these questions are crucial to understanding the role that FET colleges must play within the broader array of education and training institutions in South Africa and indeed in any country. What is taught and how it is taught are directly related to the reasons for the supply of knowledge and skill. Senior secondary schools, as one component of the South African FET system, have traditionally concentrated on general academic education, with preparation for work as one of a number of educational aims; moreover, an aim that has been subject to ongoing contestation. On the other hand, colleges, as the other major public provider of education and training in the FET system, have always been deemed to have a more direct relation to the world of work, both in terms of subjects offered and processes of teaching and learning. This makes them more receptive to the current global focus on workforce development, but at the same time more vulnerable to the dictates of policy which, no matter how well intentioned, often operate in utopian mode, with insufficient cognisance of what new policy directions may mean at the level of implementation.

The theoretical framing of the chapter is influenced by Young's (2002) use of Raffe's (1992) concepts *intrinsic logic and institutional logic* to distinguish between what a policy stands for in terms of goals and purposes of reforming governments, as well as people's aspirations (intrinsic logic) and the power relations and social interests involved in the implementation of policy (institutional logic). What is left out in such depictions of curriculum is a consideration that can be called the *epistemic logic* of curriculum. Epistemic logic refers to requirements for teaching and learning posed by the form of the knowledge to be transmitted. It points to a deeper rationality than the one posed by a simplistic view of curriculum as a statement about subjects and their content. It also argues against the instrumental external rationality to which education and training are deemed to respond in human capital theory (Ashton & Green 1996) and more recent skills formation theories (Ashton 1999; Brown 1999).

While not denying the importance of understanding curriculum in political, economic and social terms the chapter takes a different path. In the first section the epistemic logic of knowledge and skill at the intermediate level is explored. The distinction between knowledge and skill, made in this section, is intentional and signals a rebuttal of progressive trends in education that reduce all types of knowledge to skill sets (Muller 2001: 68). In such a

reductionist approach, knowledge becomes invisible and fundamental epistemological issues are ignored. Young (2001a) argues, for instance that this has happened throughout the history of vocational education and training (VET).¹ In the second section the shift from VET to FET is examined as a realisation of new policy intent (see Chapter Seven) that may either strengthen or weaken publicly funded provision at the intermediate level. The concluding section argues for a FET curriculum of the future that recognises intermediate skill in its own right, albeit in a shape and form that bears little relation to trade apprenticeships, traditionally the backbone of skill creation at the intermediate level.

Knowledge and skill at the intermediate level

Vocational/academic divisions

While the separation between general education and VET is a well-known feature of educational systems in many countries (OECD 1996), young people and their parents tend to view the general education route as providing a wider array of life chances – and this despite official discourses that highlight the social and economic value of vocational preparation for work at both early and later stages of working life. The historical association of work-related curricula with low attainment and the social control of deviancy (Badroodien in Chapter One and Sultana 1997) have certainly contributed to this perception. On its own terms VET covers a wide spectrum of occupation-directed activities. These range from preparing individuals for initial entry into employment; to additional training for those already employed; to the retraining of those who have been employed but who may have lost their jobs, or who seek new careers; to remedial vocational preparation for individuals who are in some way marginal or out of the mainstream work force, with little or no labour market experience and low levels of basic skills (Grubb & Ryan 1999).

Classifications of this kind do not, however, explain the nature of the *vocational*, or its forms of institutionalisation – especially not at the intermediate level. For such an explanation we need to turn to artisanal or craft work, which lies between unskilled or low skilled work at the bottom end and managerial and professional work at the top of the occupational ladder.

Craft workers have traditionally held a level of knowledge and skill very different from that held by workers in mass-production enterprises, and different again from that of engineers and technologists in various fields. It is in craft or the artisanal trades that we find the historical antecedent of what the literature now calls 'intermediate skilling'.

Craft as 'on job' knowledge

There are many descriptions of crafts or traditional trades (Coy 1989; Lucie-Smith 1981; Pye 1968). What they have in common is an emphasis on the relationship between worker, materials and tools and a depiction of the craft worker as being responsible for producing the whole item. The craft worker performs in succession all the operations necessary to produce a specific item, using a wide range of tools and mindful of the inherent qualities of the material used. The relationship between part and whole is crucial as the craft worker must be able to see how the parts fit into a whole and how the whole consists of a series of interlocking parts. What relates the parts to the whole is an 'embodied principle of arrangement' (Pye 1978). Principles operate at a general and non-empirical level, but craft workers grasp the relationship between part and whole through the act of visualisation (Gamble 2002) rather than through formal reasoning, talking, reading and writing. They understand the principle in a practical manner and they pass on this knowledge through modelling rather than through verbal instruction. This explains the marginal role of language in the master-apprentice instruction process (Gamble 2001; Nielsen & Kvale 1997; Singleton 1989).

Craft, therefore, has something in common with general principled knowledge as we find it in the natural and social sciences (and in formal secondary and tertiary knowledge) but it is also very different. What is similar between the two kinds of knowledge is that both have an epistemic logic that links *procedures* with *principles*. Their differences lie in the nature of the principles involved, as well as in the directionality of the epistemic logic. In craft the principle is particular; it is embodied in the item that is being made. In the natural and social sciences, principles are abstract and non-empirical; they can only be grasped through formal reasoning. Progress in science knowledge has, however, irrevocably affected the nature of vocational knowledge and a shift from particular to general scientific principles now characterises knowledge at intermediate and higher levels of technical and technological expertise.

In higher-level knowledge the epistemic logic can be characterised as *principle through procedure*. At the intermediate level, where the emphasis is on the practical rather than the conceptual, the movement is reversed and the epistemic logic can be characterised as *procedure through principle*.

The distinctive features of intermediate knowledge and skill are explored further in the sections that follow.

A revised form of vocational knowledge

Vocational knowledge has never been static. Mumford, writing in 1930, (as quoted in Pye 1968: 11) describes the relationship between maker, materials and tools (or sources of power) as a continuum of 'technical complexes', which inter-penetrate and overlap to this day. The Eotechnic phase, extending from about AD 1000 to 1760 was a 'water-and-wood complex'. The Paleotechnic phase of the industrial revolution was a 'coal-and-iron complex', succeeded by the Neotechnic phase as an 'electricity-and-alloy complex'. We can update the last phase by extending it to the microchip and nano materials, where tiny particles of materials are manipulated.

In more general terms the history of industrial development shows how late nineteenth-century technology started drawing more strongly on general scientific principles (Layton 1984), resulting in increasing specialisation and division of labour. Colleges, as technical institutions, were established around the time when increasing specialisation and the speeding up of work processes were limiting the apprentice's experience of different branches of craft under the tutelage of the artisan. Supplementing limited practical experience with instruction in the general scientific principles underlying various crafts was deemed a resolution to the loss of all-round craft knowledge and skill (McKerron 1934). It is from this time onwards that we find traditional workbased apprenticeships shifting to a theory–practice combination of either evening classes, or day- or block-release for apprentices indentured in workplaces. This curricular arrangement has characterised trades training for well over a hundred years. The South African system of trades training is directly descended from the English system. However, it should be borne in mind that the system of technical education which evolved in England also differed markedly from systems of technical education that developed on the European continent in countries such as France and Germany, which industrialised later and, therefore, needed to develop a competitive edge based on technical expertise. In a comparison between the development of scientific and technical education in nineteenth-century England and France, Green has the following to say about England:

Technical education had been cast in a mould that subsequent legislation would find hard to break. Growing up as an extension of the apprenticeship system and reliant on employer initiatives, it developed in a fragmented and improvised manner: perennially low in status, conservatively rooted in workshop practice and hostile to theoretical knowledge, publicly funded technical education became normatively part-time and institutionally marooned between the workplace and mainstream education. A century later we have still not overcome the deep divisions between theory and practice and between academic knowledge and vocational learning which were first entrenched in these nineteenth-century institutional structures. Nor, would it seem have we quite outgrown the voluntarist reflex which gave rise to them. (Green 1995: 139)

Green's analysis may be overly negative if one bears in mind the significant numbers of artisans in both England (and South Africa) who have traditionally attained artisan status through this route, but he is right in pointing to the difficult relationship between theory and workshop practice as a feature of certain types of vocational systems. The City and Guilds of London Institute for the Advancement of Technical Education, founded in 1878 and generally acknowledged as providing the curriculum base for technical colleges as we have known them, offers but one example of how difficult it was to combine practical 'know-how' with scientific knowledge. Although now an awarding body rather than a provider, the 'City and Guilds' originally attempted to come to terms with a modernising world through offering scientific and technical education. The main offering, of mathematics, chemistry, physics and mechanics, with third year specialisation in pure or applied research, ended up being aimed typically at young people with a special aptitude for mathematics and science and at persons training as technical teachers. Tuition for apprentices and artisans, as well as for those already employed in industrial and technical occupations, was offered through evening classes, summer schools and specialised short courses; thus separating the supposedly academically-inclined from the more practically-inclined student (Gaye 2000: 390–393). This distinction between two forms of technical education can be attributed to the lack of provision of sound general education, on which technical education could rest, available to working class people in England at the time (Green 1995: 126).

Nevertheless, the combination of theory taught in a college linked to on-job apprenticeships became the model for what Young (2001b) calls a 'knowledgebased approach' to vocational preparation. A particular feature of this curriculum mode was the exclusion of practical application. In the English Technical Instruction Act of 1889, technical education was defined as being 'limited to instruction in the principles of science and art² applicable to industry' and *not* to include 'teaching the practice of any trade or industry or employment' (original emphasis). This definition fitted well with the requirements of professional scientists who were teachers and examiners in the new system, but there were also other reasons. One was that industries did not want their trade secrets opened to public teaching. A second was that state-aided instruction in the practice of any particular industry could also be seen as a direct subsidy by government, considered unacceptable in the *laissez*faire economic regime of the time (Layton 1984: 25). Learning how to apply scientific knowledge was thus left to apprentices and employers and not included in college tuition.³

The epistemic logic of intermediate knowledge and skill

Since those early days advanced theoretical instruction has remained a core feature of preparation for science-based crafts or trades in the electrical, engineering and chemical sectors in all countries. Trades, such as cabinetmaking and certain trades in the building industry, which still largely rely on manual manipulation of tools, have, however, tended to emphasise practical rather than theoretical instruction. The theory component of these trades, as taught in a college, relates to trade theory and technical drawing, without a foundation in mathematics and science. This differentiation in the knowledge requirements of various trades has resulted in a tension between traditional syllabus-based approaches and more recent occupation-based approaches that assume that vocational knowledge is implicit in competent performance and that there is little or no need to teach and assess knowledge separately. In the latter variant the logic of instruction comes, not from an epistemic rationale, but from work itself, with functional or job analysis as the basis for curriculum design (Young 2001b).

Occupation-based approaches may sound similar to the logic that governed traditional craft/trade, but this is not so. They are similar in that they both emphasise the practical, but the traditional crafts or trades preceded the breaking up of an occupation into discrete parts as we find in the 'unit standards' approach underpinning the National Qualifications Framework (NOF) in South Africa; where units are assessed separately and then added together to obtain the required number of credits for a particular qualification. The very fact that scientific knowledge was introduced into the trade curriculum to compensate for loss of the kind of holistic relational knowledge that craft workers possessed when the entire work process was still under their control, shows that knowledge and skill at the intermediate level was never a restricted form of work. 'Procedure through principle' has been and remains the basis of intermediate knowledge and skill. Procedures divorced from principles refer to the logic of Fordist production systems where workers can learn to perform one or more procedures in a chain of operations and become highly skilled in those particular procedures, without needing to know what came before or what comes after. This is what constitutes 'low skill'.

Having distinguished 'intermediate' knowledge and skill from 'low' skill leaves the requirement of exploring the distinction between 'intermediate' and 'higher' levels of knowledge and skill. We have established that the combination of theory and practice is a constitutive characteristic of intermediate knowledge and skill, but the same could be said of the knowledge base of higher-level professions – and here it is appropriate to think of a field such as Engineering. Although there are differences in both the level and content of the knowledge component, particularly as it relates to the management role that engineers play in the workplace, the crucial difference pertinent to the argument made here has been depicted as a difference in *directionality*. Artisans are not managers; they are doers. Intermediate knowledge is rooted in the practical or everyday. From this basis it moves to the conceptual and then back to the practical, with the emphasis always on practical problem solving. The link between practice and theory in the acquisition of higher-level knowledge is the converse. It begins at the other end, with the acquisition of a high degree of theoretical knowledge. Practical work is included, but aimed at building strong cumulative conceptual frameworks that develop with experience and represent growing expertise (Hodson 1992). The workplace component is added in the form of an internship at the end; or, in practical blocks introduced at intervals, as we find it in the technikon system.

Layton (1993: 148) offers a conceptual picture of the relation between practical and theoretical when practical knowledge lies at both the beginning and the end of the learning process.



The movement is not one of theory to application; it is one of reinterpretation. The process of translation or reworking commences after scientific principles have been grasped in their own right. Once we understand the principle we make trial assumptions about what might work and what might not and then we test our assumptions in practice. We are able to think beyond well-known concrete situations and we look for solutions in terms of similarity at the level of type or class. It is this ability that provides the basis for technological innovation and adaptation.

This is different to the kind of problem-solving described by King in the *Jua Kali* sector in Kenya where artisans take a machine apart to understand how it works and then use ingenuity to make a 'local', cheaper version of the same thing. This capacity to design, copy and improvise is, in many cases, grounded in experience built up over 10 to 15 years of employment in the formal sector. Here we find practical knowledge, rooted in everyday experience, being put to work in a creative manner. King goes on to argue, however, that rapid technological change is undermining this strategy of adaptation. Technical

capacity learned on the job is no longer sufficient and has to be linked to a more formal understanding of the principles of mechanical engineering, electronic systems and materials science, if younger generations of artisans are to make the transition from the basic manufacture of machines to the manufacture of higher-order machine tools (King 1996: 113–121).

To sum up: the epistemic logic of vocational knowledge and skill at the intermediate level cannot be equated to practical know-how only. Its directionality locates it firmly in the practical, but from the earliest days of holistic craft practice it has been knowledge of procedure interpreted through principle. The crucial shift from particular principles acquired through visualisation to general scientific principles has radically changed the nature of its constitutive components and has resulted in a requirement to move between context-dependent meanings and abstracted meanings that function independently of context – thus crossing a hard boundary between two very different kinds of knowledge.⁴ Pye (1978: 63) recognises this difference when he argues that it is the prepared mind that can envisage a desired end result and persistently search for it through tinkering or fiddling (play), as well as through trial and error (direct experience). This combination distinguishes intermediate and higher-level work from 'mindless' doing according to prespecified procedure - or expertise based on repetition. Intermediate-level technicians cannot rely on trial and error, or on pre-specified procedures only. Ongoing advances in science and technology demand that they have access to general principles that allow them to envisage a 'class of result' rather than a particular instance – hence the requirement for both the practical and the scientific.

Transmission of intermediate knowledge and skill

How is such a combination to be acquired? The answer is elusive – not because it is not known and practised, but because it is both a cost issue and a political issue, with the political coming to the fore when one asks whose purposes define vocational knowledge priorities. What is required in terms of teaching, though, is transmission of formal conceptual knowledge, enhanced by practical work selected for its 'conceptual relevance' (Muller 2001: 70). Practice needs to be related to theory in the same way as laboratory work is linked to the acquisition of scientific principles. Teachers have to be able to teach and instruct and students have to be able to render concepts in words, as is the case in all instruction concerned with the preparation of mind. It is not the non-languaged transmission through modelling that has long characterised traditional apprenticeship.

This kind of expertise is not to be accomplished through linking formal teaching with work-based practice. Workplace experience is necessary yet, in itself, not sufficient to allow a grasp of the concepts from which general principles are obtained. Workplace experience gives students the opportunity to 'see' and solve problems using conceptual frameworks already developed; it does not enable their development. What it does do, even within the restrictions of what relative novices are allowed to do in the workplace, is to enable the development of practical know-how, socialisation into particular work practices and the formation of occupational identity. These are all crucial ingredients of preparation for work but they can never be seen as a sufficient foundation for the mixture of practical and scientific knowledge required in contemporary work practices.

When we think about the intermediate level in these terms it becomes clear that, far from being a tragedy and a cause for lamentation, the demise of the old apprenticeship system provides the impetus for rethinking this level. Referring to nineteenth-century England, Green (1995), in fact, makes the point that it was exactly because technical education was linked to work-based apprenticeship instead of developing an institutional character of its own that technical education in England fell so far behind its continental counterparts. A counter to this argument may be to refer to the dual system in Germany as a model of effective linkages between education and industry. It is, however, not feasible for a country like South Africa to look to Germany, with its complex corporatist approach, for a model that could be applied here. In an extensive exploration of the political economy of skill creation in seven advanced industrial countries, Crouch, Finegold and Sako (1999) even caution countries, which by virtue of their advanced economies could be considered to be in a far better position to emulate Germany, against 'policy borrowing' that neglects questions of context.

Until the early 1990s there was enthusiasm in a number of countries ... for imitations of German apprenticeship, though rarely did those advocating the imitation appreciate how the German institution was embedded in other elements of socio-economic structure. More recently, particularly following post-unification difficulties, Germany has become generally unfashionable. There is now less talk of the advantages of apprenticeship, and policy-makers, including in Germany itself, talk of the advantages of general academic education over vocational preparation. There is, however, little evidence that they are coming to grips with the implications of inviting all students to pursue academic course when eventually most will fail to gain access to the kinds of occupation to which they believe such courses lead. (1999: 250)

This quotation shows the dilemma of policy-makers in all countries: how to organise education and training to prepare people for labour markets where conditions are constantly in flux, where security seems to lie in achieving the highest possible general qualification before entering an occupational stream. It is precisely for these reasons that there is a need to rethink the preparation of middle-level technicians and para-professionals. In the next section the move from VET to FET will be considered to show the dilution rather than the strengthening of intermediate knowledge and skill as the outcome of neo-liberal economic policies.

From 'vocational' to 'further' education and training

The establishment in South Africa of a FET sector can be traced back to the first White Paper issued by the newly-elected Government of National Unity in 1995:

The Ministry of Education considers that the Further Education level needs to be planned as a comprehensive, interlocking sector which provides a purposeful educative experience to learners at the post-compulsory level (post-GEC phase), irrespective of age, place and time of delivery. There is immense scope, within the flexible structure of the NQF, for a modular curriculum of great variety comprising core general education and optional vocational or academic courses. The scope for well-functioning distance education is considerable. This mode of learning is well suited to the huge numbers of out-of-school young people and unemployed adults for whom conventional school-type instruction is unappealing and inappropriate. (RSA 1995a)

The broad inclusivity spelled out in the 1995 White Paper is taken further in the 1998 White Paper that deals with the transformation of FET, as the quotation with which the chapter started shows. FET is intended to provide both initial and second-chance opportunities for young people and adults, in furtherance of broad policy goals of reducing, if not eliminating, pressing social problems of unemployment, income inequality and poverty. While South Africa's legacy and current condition in this regard is well-known, the policy move is by no means particular to this country. Lucas (2000), for instance, goes back to the 1970s to identify a similar shift in England. With the decline of heavy industry and the steady rise of unemployment, technical colleges began to transform themselves into colleges of further education, providing a much wider range of academic, pre-vocational, general vocational and vocational courses so that they began to acquire a multi-purpose educational function that severed exclusive links with industry and moved them towards providing for the learning needs of people from the wider community. Full-time enrolment increased as adults and school leavers, who would previously have entered the labour market directly, entered the FE system and colleges increasingly saw themselves as "responsive" institutions catering for a diverse student population' (Lucas 2000: 150).

The shift from VET to FET and the requirement for multi-purpose public FET institutions in this sector needs to be interpreted against a broader backdrop in order to understand what this may mean for knowledge and skill at the intermediate level. Three concomitant trends will be explored that all have an influence on the unfolding of a new curriculum dispensation. They are by no means the only forces that could be taken into account – they are being foregrounded because each has a particular impact on the direction that FET curriculum has taken, or is likely to take.

From employment to employability

There has been a widespread argument in the last quarter of a century that the stimulation of demand to achieve labour market conditions of full employment is a thing of the past. Since the mid-1970s, political rhetoric throughout the world has subtly shifted from promises of full employment to

full employability (Ashton & Green 1996). Individual 'employability' is now seen as the source of economic opportunity, choice and occupational status (Ashton & Green 1996: 7). Brown and Lauder, in their critical examination of alternative interpretations of the relationship between education and economic development, argue that centre-left Modernisers (those in pursuit of social justice and economic growth) see investing in education and training as the only way to enable workers to become fully employable at a time when it is clearly 'a mistake for nation-states to "guarantee" full employment' (Brown & Lauder 1996: 11). The shift from employment to employability not only obscures the need to focus on re-conceptualising the crucial employer/education relationship; it also does something else. It shifts the goal posts, so to speak. Rather than focusing on an economy's responsibility to create sufficient jobs for all, education and training are given the task of making everyone employable, regardless of whether there are jobs or adequate opportunities for self-employment. Responsibility for getting or not getting employment in some form rests with the individual, not with the state.

It stands to reason that education and training policy in South Africa seeks to eradicate previous unequal provision through a series of reforms aligned with a broader national Human Resource Development Strategy entitled A Nation at Work for a Better Life for All (DoE & DoL 2001 – see Chapters Five, Nine and Ten). The policy framework for the new FET college sector recognise this sector as 'the key sector to reach out to constituencies that have, historically, been excluded from education and training opportunities' (emphasis added) (DoE 2001: 6).

Crouch, Finegold and Sako argue that the most likely response to an intensified demand for education and training will be 'an even more desperate search for qualifications, perceived as a means of gaining an advantage in the struggle [for jobs]' (1999: 230), leading to what Brown and Keep (1999: 33) have called over-education and/or over-training. With many more people 'employable' in labour markets that are not nearly creating sufficient jobs, it is a buyer's market. With reference to a number of advanced industrial countries, Crouch *et al.* (1999: 114, 126, 230) show that when employers find that vocational routes do not provide broad problem-solving skills and capacity for communication they recruit people with higher education qualifications instead. The result is that people with vocational qualifications

do not get access to the kind of occupations for which they believed they were being prepared, while graduates from higher education institutions find themselves in occupations below what they anticipated when they entered higher education.

The response from VET/FET institutions to demands for preparation for 'employability' can only be to broaden their curricula as much as possible but - the question must be asked: at what cost? Introduction of additional courses or modules and courses such as communication, information technology (IT), entrepreneurship, life skills and citizenship exert pressure on courses of study underpinned by science and mathematics as knowledge disciplines. where tuition requirements are high and timetabling is already a juggling act of the first order. Many South African colleges are well aware of their obligations to prepare their students in a broad and holistic way, but they typically can do no more than try to ensure that students have at least one 'free' period a day, during which they can make use of the language and computer laboratories, set up to help those for whom English is not a first, or sometimes even a second language, to improve their basic proficiency and to introduce IT to those without previous access. Students know that they need to make use of these opportunities but they are often already overwhelmed by the demands of the technical curriculum and they cannot take on more.

Employability may be the new educational aim in FET but an extended curriculum that introduces a broader general repertoire runs the risk of decreasing the time spent on the acquisition of scientific principles as demanded by the epistemic logic of intermediate level knowledge and skill. Far from classroom and practical tuition in mathematics and science being extended to allow educationally disadvantaged students epistemological access to these knowledge disciplines they are likely to be short-changed. This is not through malevolent intent, but simply because the tuition day has limits. It should also be remembered how a racially-based system of job reservation prevented their parents from entering artisanal and trade occupations (DoE 2001: 3-4), which means that these students mostly do not come from 'tinkering' environments that provide practical grounding as the first step in the movement between practical and theoretical knowledge. The stark reality that emerges is that preparation for employability rather than for employment may disadvantage rather than assist those who at last have an opportunity to enter middle-level employment.

'On-job' training as curriculum model

It is well-documented that many college graduates in South Africa complete their programmes of study without having had access to practical on-the-job training deemed vital for occupational preparation (Kraak & Hall 1999; DoE 2001). Work-based learning has therefore become not only a desirable but an essential core element of FET college provision.

The decline of the apprenticeship system has no doubt engendered this policy imperative but it is not the only reason. There are also external factors. Ashton and Green (1996: 123) argue that the development of internal labour markets in large corporate bureaucracies has increased the importance of company-specific on-the-job training, but firms tend to train for their own needs. Their responsibility is not towards skill acquisition as a general public good. Crouch *et al.* remain doubtful whether a reliance on firms and individuals in the market can achieve the goal of upskilling most of a working population (1999: 218).

The implication for public FET colleges is that they must increasingly take on responsibility for arranging shorter and longer periods of work placement for their students, while simultaneously investing in transmission technologies that provide opportunities for simulated activities, project-based learning and other experientially-based approaches to close the gap between the college and the world of work. Laudable as these innovations may be, they also have a potentially damaging underside, in educational terms.

If institutions are expected to concentrate their efforts on forging external linkages and or becoming 'proxy' workplaces themselves, it is possible that teaching situations where an instructor requires students to do practical work in order for them to 'see the science behind the artefact' (Unwin 2003a) may receive short shrift.

Vocational preparation at the intermediate level may remain locked into the theory-practice combination that characterised the old apprenticeships system albeit in revised form. The theoretical demands posed by ongoing advances in science and technology may not be met and intermediate knowledge and skill may move towards 'low skill' rather than opening a pathway towards 'high skill'.

A number of factors, such as growth in the hospitality and catering sectors, renewed emphasis on retail and marketing and the need for adequate preemployment training for lower-level clerical and secretarial workers to guarantee proficiency in information technology and raise their ability to be good communicators in a variety of text-based and face-to-face situations, have contributed to increasing curriculum diversification in the FET college sector. These curriculum areas do not require the same theoretical grasp as science-based subjects; yet they are placed within the 'theory-practice' combination that characterises college provision. What results is that procedure is often taught as theory. Students are required to say or write what they would do in a practice - often without actually doing anything that is practical. For instance, it is possible to see students being required to explain how to use a fax machine, rather than demonstrate that they can use one. While such classroom practices may result from lack of equipment for demonstration and practice, they are too prevalent to be dismissed as merely the by-product of under-resourcing.

The inclusion of new curriculum areas in FET calls for a consideration of the longer-term impact on subjects where an increasingly complex scientific knowledge base is crucial for the kind of expertise eventually required in the labour market. Should a 'procedural' form of theory become dominant it may again lead to a dilution instead of a strengthening of the knowledge component of qualifications offered by FET colleges.

Conclusion

The chapter started off by asking what intermediate knowledge and skill might mean in a new knowledge-driven economic dispensation and then developed an answer that placed them neither as lower-level versions of high skills, nor as higher-level versions of low skills. They were shown to have an *epistemic logic* of their own and the argument was made that the move from VET to FET may dilute rather than strengthen this knowledge and skill base. What has to be acknowledged is that the argument pertains to a particular component of FET provision: to occupations commonly grouped under engineering, but also to accounting, art and design and early childhood

development (or educare), as well as to envisaged new areas such as avionics, plastics and agriculture. While these curriculum areas appear very diverse, they share a common heritage in that they all derive from formal bodies of knowledge in the natural and/or social sciences or in the humanities and, because of this, they all require a combination of conceptual and practical expertise for their successful realisation. Should the distinctive knowledge and skill base of these occupational areas not be recognised, they will be treated in the same way as areas that have little or no formal conceptual basis and are driven by the logic of work and not by the logic of knowledge (Young 2001b).

The strong pull towards offering mainly practical instruction without theoretical underpinning is understandable in a country where levels of general education are low, but it is a dangerous road. It leads to downward vocationalisation at precisely a time when all indications point to the need to establish the vocational route as a viable alternative to schooling, without restricting the occupational chances of those who take this option. The distinction between practical work that enables the transmission of theoretical principles, and practical work that transmits particular procedures, needs to be recognised. It is crucial for teachers and lecturers to understand the difference and to reflect on the purposes of engaging their students in practical work.

What counts as theory in different occupational areas is a further important consideration. While different FET curriculum areas have different histories and different relations to the market, none are independent of bodies of knowledge. There is constant movement in what counts as theory. We see, for instance how secretarial work has become management and how retail work is increasingly embedded in marketing and logistics. There is no occupational area that can claim that workplace practice is sufficient preparation for building knowledge and skill, just as there is no occupational area that can claim that instruction without an opportunity to do practical work, both before and after classroom-based work, is adequate. Understanding at the level of principle, or at the level of general procedural rule, is the lens through which particular procedures take on meaning. It is a key ingredient of making people employable/self-employable in occupations at the middle and higher levels.

National policies differ in respect of the direction they take to encourage upskilling of a country's population. Some prioritise higher levels of general education, while others opt for more specific vocational education. Whatever the route taken, the FET college curriculum of the future has a formidable task. Preparing young people and adults for entry into the world of work at the intermediate level cannot be shirked as a public responsibility. The idea of 'workmanship' – which Pye (1968:23) uses in a non-gendered way to refer to the exercise of care plus judgment plus dexterity by those who interpret plans and designs and bring them to realisation – now seems to refer to a bygone era of handwork and craft that has long been surpassed by technology, but it still captures the essence of knowledge and skill at the intermediate level, in a wider sense than only the traditional trades. The world needs designers, managers and all kinds of knowledge workers but they, alone, do not account for the work that has to be accomplished in any economy or society. The challenge for FET lies in strengthening education and training at the intermediate level and making it an option that young people and adults will want to choose – now and in the future.

Notes

- 1 The more widely known term VET (vocational education and training) is used in preference to TVET; or, technical and vocational education and training. VET should be read as including technical education.
- 2 Layton notes that 'science and art' would today be called 'science and design' (1984: 24).
- 3 Again the difference between the English, and by derivative the South African system, and the European continental system should be borne in mind. The French trade schools of the nineteenth century offered a combination of theoretical and practical training. It was not assumed that years of serving as an apprentice, very often doing the same thing over and over, was an adequate 'proxy' for systematic practical training (Green 1995: 137).
- 4 Bernstein's distinction between horizontal and vertical discourse establishes these two kinds of knowledge as taking fundamentally different discursive forms (2000).
- 5 See quotation at the start of this chapter.

Skills development for enterprise development: a major challenge for 'joined-up' policy

Simon McGrath

Introduction

The challenge of 'joining-up' skills development and enterprise development policies and programmes

Skills development policies necessarily must have a strong concern with both the nature of the current and possible future labour markets that they are seeking to articulate with and support. In South Africa, as elsewhere in Africa, it is evident that a large proportion of existing and future employment will take place in smaller, less formal enterprises. Moreover, such enterprises are the likely destination of many of the poorest as well as of innovative entrepreneurs. Given the limited absorption capacity of the South African formal economy, skills upgrading in the informal economy needs to be an integral part of an overall skills strategy. For this reason, the articulation between skills development and enterprise development strategies is an important test for South Africa's ambitions to transform its skills development pathway.

Although there is a widely-agreed international discourse of the importance of articulating skills development and enterprise development strategies, the widespread experience points to the limited capacity of African governments for joined up policy in this regard. Part of the problem has to do with the architecture of government. Often there are several government departments with overlapping, and frequently conflicting, agendas and mandates in this area. These would include Departments of Industry or Small Enterprise, of Education and of Labour. However, on occasion (as in Kenya – see King 1996; King & McGrath 2002), the President's Office or the Department for Technology, or even other players, might also be involved. The main line departments in such a landscape are likely to have their own provider institutions and their own set of donor projects.

In spite of the complex range of official players, the problem is often not that of conflicting policies but of no policies at all. In many cases, enterprise development is a minor element of a far larger portfolio and the same is often true for skills development. The tendency, therefore, is to a conflicting set of programmes, none of which are underpinned by a coherent and comprehensive strategic vision. At the same time, private provision also tends to reflect divisions between educators, trainers and enterprise developers.

African experiences in skills development for enterprise development and their possible implications for South Africa

The first thing to be said here is that this is one area in which South Africa does genuinely appear to diverge significantly from other African experiences. As a result of its very particular path of colonisation and industrialisation, South Africa lacks the large artisanal informal sector¹ of most other African countries. It has neither the continuation of guild- (as in parts of north Africa) or caste- (as in much of west Africa) based systems of skills transfer. Nonetheless, South Africa does have a large informal sector, albeit concentrated in trade and services, and there are potential lessons from experiences in the rest of Africa for South Africa's attempts to bring together skills development and enterprise development.

More developed in west Africa than east, and in east than southern, there is a strong African model of skills development within the informal sector. This model includes geographical or sectoral associations; apprenticeships; and even, in some cases, certification and graduation ceremonies. Such systems provide a strong, socially-embedded model of skills development in which practical experience, socialisation and access to business networks play central roles in successful transitions to self-employment. However, their success in dealing with technological change is less clear, particularly due to the typical dearth of theoretical knowledge that is imparted (King & McGrath 2002).

The strengths and weaknesses of such systems have generated a range of interventions designed to improve the quality of skills development within them. Such interventions are strongly based in a notion that it is more effective to support the skills development of those already working in the informal sector than it is to focus on those who are yet to enter the labour market. This neatly complements a strong strand of the enterprise development literature, with its stress of support for existing entrepreneurs as the most effective intervention (Manu 1999).

Since the late 1990s, there has been a strong interest in the enterprise development field with the notion of Business Development Services (BDS – Gibson 1997). This also focuses on skills development for existing enterprises but sees this clearly as but a small element of an overall strategy to provide non-financial support to such enterprises. This approach accepts that some external interventions are likely to be needed in the area of skills. However, its emphasis is on the stimulation of markets for skills provision, and the development of providers that are business-like, client-centred, demand-driven and cost recovering (Working Group for International Co-operation in Technical and Vocational Skills Development 1997).

However, this focus on skills development for those already in enterprises contrasts strongly with the other main strand of intervention in this field. This is far more supply-side oriented and focused on the education and training system. It takes existing public training providers and seeks to make them more self-employment oriented. Such an approach is entirely understandable. Public training systems across Africa are faced with a crisis of relevance as their existing (and relatively high cost) institutions continue to over-produce workers for formal sector employment. Politically, it would be very difficult to close such institutions and so reorienting them to self-employment has great political attractiveness (Grierson & McKenzie 1996; King & McGrath 2002).

This perspective has spawned a large number of initiatives, typically with considerable donor backing. However, evidence for success has been limited. There are a number of reasons for this. There has typically been an overoptimism about the ability of public provider institutions to reorient themselves in this way, particularly in an adverse resourcing climate. Often, they have found it impossible to pursue successfully a 'dual mandate' (McGrath & King 1995) of self- and wage-employment orientation simultaneously. There has been too little attention paid to the aspirations of students. Here the conventional wisdom is that such programmes fail because students have no intention of becoming self-employed. However, evidence from Ghana (Afenyadu 1998), Kenya (Nishimura & Orodho 1999) and Malawi (Oki 2002) suggests that students are not so negative in principle about self-employment but are very realistic about their limited ability to be successfully self-employed on graduation. This points to perhaps the key issue in programme failure: that it ignores the complex and medium-term nature of the typical pathway to successful self-employment (McGrath & King 1995).

South Africa clearly lacks a meaningful artisanal base upon which to build an informal sector skills development strategy like those in many other African countries. This does not preclude a focus on the skills needs of those already engaged in SMMEs, however. To the extent that South Africa's strategy for skills development for enterprise development is based on the formal provider route, broader African experiences point to a need for caution. The final potentially important lesson for South Africa from the continental experience is that enterprise development and skills development have continued largely in spite of an absence of co-ordinated policies and programmes (King 1996; King & McGrath 2002). This points to the need for humility and caution in any potential intervention strategy.

The scope and structure of this chapter

In the rest of this chapter I will turn to the case of South Africa since 1994. The main focus will be on policy. This will be addressed through an exploration of policy documents from the three key Departments – Trade and Industry (DTI), Labour (DoL) and Education (DoE). Kraak and I have already examined the major policies for skills development of the Departments of Education and Labour in earlier chapters. However, my intention here is to focus primarily on what these policies have to say about skills development for enterprise development.

This examination of sectoral policies will be followed by a brief consideration of where their combination leaves the policy debate on skills development for enterprise development, and how that talks to the broader vision for a higher skill South Africa. Finally, I will address the issue of the challenges that remain for practice.

Industry policy

The DTI's flagship policy for enterprise development remains the *White Paper* on National Strategy for the Development and Promotion of Small Business in South Africa (RSA 1995b), one of the first major policy statements of the post-apartheid era. This in itself is indicative of the importance that the new ANC-led government placed on enterprise development. The foreword to the White Paper made clear some of the rationale for this prioritisation of enterprise development:

Small, medium and micro-enterprises (SMMEs) represent an important vehicle to address the challenges of job creation, economic growth and equity in our country. Throughout the world one finds that SMMEs are playing a critical role in absorbing labour, penetrating new markets and generally expanding economies in creative and innovative ways. We are of the view that – with the appropriate enabling environment – SMMEs in this country can follow these examples and make an indelible mark on this economy. The stimulation of SMMEs must be seen as part of an integrated strategy to take this economy onto a higher road – one in which our economy is diversified, productivity is enhanced, investment is stimulated and entrepreneurship flourishes. (RSA 1995b: Foreword)

The White Paper presented a very positive vision of the possibilities of SMMEs as a means to meeting a range of South Africa's development goals including equity and redress; black empowerment; economic competitiveness; employment creation and poverty reduction. Crucially, it argued for the importance of enterprise development being seen as an integral part of an overall industrial development strategy. Although not constructed explicitly within a high skill discourse, it is clear that there is much resonance between this strategy and the approaches adopted by East Asian development states.

Although the White Paper was positive about the potential of small business in South Africa, it did also acknowledge the range of major constraints faced by these businesses. These included:

- A disenabling legislative and regulatory environment;
- Poor access to markets;

- Poor access to finance;
- The high cost and low availability of suitable business premises;
- Inadequate technical and managerial skills;
- Poor availability of appropriate technology;
- Inadequate infrastructure; and
- A heavy tax burden. (RSA 1995b: 2.3.1)

This list included skills as one of the major constraints on enterprise development. Indeed, a subsequent listing had the following as the first barrier to specifically black enterprises: 'Bantu Education restricted opportunities for the acquisition of technical and professional skills by black people' (RSA 1995b: 2.3.3).

Just as skills shortages were identified as one element of the weakness of South African small businesses, so skills development was seen as part of an overall strategy for enterprise development. Sub-section 4.7 of the White Paper focused at length on the skills development challenge. It recommended the development of appropriate programmes for 'the acquisition of relevant vocational, technical and business skills'. At the level of survivalist enterprises, it argued that 'literacy and entrepreneurial awareness' would be particularly important (RSA 1995b: 4.7).

The White Paper talked of a 'national training strategy for small enterprises' (RSA 1995b: 4.7), mimicking the larger NTS process (see Chapter Two). It argued that the core of this should be a reconsideration by training providers of how they could meet the differentiated needs of the SMME sector, including:

- Survivalist entrepreneurs lacking even basic literacy;
- Micro enterprises in rural areas, where language capabilities are critical for the absorption of experience;
- Women entrepreneurs wanting to focus on particular issues and problem areas and needing particular time considerations to match home duties and training;
- Business and skill needs in sectors like construction, manufacturing, small-scale agriculture, tourism, and so on; and
- Self-employment problems experienced by the youth, where the emphasis will have to fall on awareness about opportunities and development paths.

In addition, it was argued that training should in general help to break with traditional gender roles in business and skill categories. (RSA 1995b: 4.7.3)

The White Paper also stressed the importance of such training being modular and accredited (RSA 1995b: 4.7.4). However, it did not explicitly link such notions to the emergent National Qualifications Framework (NQF) and can be read as being more interested in accreditation of short courses rather than the development of full awards in the NQF model. The White Paper also anticipated in a somewhat critical way the development of the DoL's new skills development strategy, which I shall discuss shortly. Here the White Paper was concerned that the industry training boards would not adequately address SMME-related training needs. This led it to recommend the establishment of a dedicated 'Informal Business Training Board' (RSA 1995b: 4.7.4). In this recommendation too lay a concern about the appropriateness of a system of certification that was for both formal and informal; large and small businesses. It also deviated from subsequent DoL policy with its suggestion of 'business internships and traineeships for SMME managers at well-run enterprises' as a key learning tool (RSA 1995b: 4.7.9). This is a significant difference from DoL's notion of SMME learnerships for potential entrepreneurs. I shall return to this issue when I shift focus to the notion of learnerships later in this chapter.

The White Paper was impressive in its distillation of 'international best practice' in enterprise development. However, it can be subjected to two main lines of criticism. First, that it was not sufficiently grounded in South African realities (King & McGrath 2002). Second, that it provided a complete menu of policy priorities without any sense of prioritisation or operational strategy (Rogerson 1999). This second criticism is particularly pertinent, as the nine years since the policy was promulgated have seen little progress in refining the broad vision. Crucially, the institutional architecture that the White Paper envisaged for the development of consensus and the operationalisation of the policy vision has been little short of disastrous. The National Small Business Council quickly collapsed in the face of governance and corruption issues, whilst the lead agency for business development services, the Ntsika Enterprise Promotion Agency, has struggled to develop vision, capacity or impact. Given the crucial importance of institutions to the high skill thesis, such a serious weakness seems significant for South African attempts to move away from its low and polarised skill path.

DoL policy

Kraak has already shown how the *National Skills Development Strategy* (NSDS) (DoL 2001a) is an attempt to respond to the high skills account as well as the specific needs and challenges of South Africa. I will take his analysis largely as read but will focus specifically on what the NSDS and its predecessor, the *Green Paper on a Skills Development Strategy for Economic and Employment Growth in South Africa* (DoL 1997), said about the SMME dimension of those needs and challenges.

The Green Paper

It is evident from the beginning of the Green Paper that, in its terms, 'small and micro enterprises (SMEs)' were intended to be an integral part of an overall vision for skills development in South Africa:

given the demands of a more complex and changing economy, characterised by increasing use of information, more complex technologies and a general rise in the skill requirements of jobs, people must also have, rising levels of applied competence. The focus on skills development in this Green Paper is about this process of deepening individuals' specialised capabilities in order that they are able to access incomes through formal sector jobs, through small and micro enterprises (SMEs) or community projects which in turn positively contribute to the economic success and social development of our country. (DoL 1997: 1.1)

However, alongside this language of SMEs as an integral part of an overall 'skills revolution' (DoL 1997: 1.1), there was another discourse in which SMEs are talked of primarily in terms of 'target groups'. This gave the strong impression that it was the equity dimension of the DTI vision that was being pursued here rather than the more positive sense of SMEs as engines of growth and innovation. However, this may be rather over-critical of the DoL's vision. What is of more importance is that the SME focus was strongly built

on notions of sustainability of self-employment and on increased standards of living. Indeed, it is clear from the Green Paper's discussion of employment services that there was a desire to avoid labelling self-employment as simply a fall-back position for those who could not access wage employment. Instead, it was affirmed as a valid employment choice (DoL 1997: 5.2.1).

It was also made abundantly clear that SMEs were seen as an integral part of several of the key institutional arrangements of the new skills development strategy, such as Sector Education and Training Organisations (SETOs – later to become SETAs), the levy-grant system and the proposed learnerships. In short, developing skills in and for SMMEs was seen as part of an overall strategy to increase skills for all South Africans. The DoL's high skill strategy, thus, was not one of simply boosting skills with a knowledge-intensive enclave, and seems, on paper, to be an appropriate response to the skills challenge facing the country.

However, the Green Paper rejected the Small Business White Paper's call for a separate Informal Business Training Board. Instead, it argued that there was insufficient organisation within the informal business community to justify such a structure. The alternative proposed was that each SETO must have a self-employment focus and

promote learning in small and micro enterprises within their sector and network with agencies, such as the Ntsika Enterprise Promotion Agency, to ensure that learning is linked to other SME support measures such as credit extension, technology transfer, etc. (DoL 1997: 7.2.3.1)

As the Green Paper did not establish a definitive position on a threshold below which there would be exemption for paying the skill levy, it had to include a commitment to easing SMEs participation both as contributors to and recipients of the system. In particular, assistance was promised for the drawing up of skills plans (DoL 1997: 8.4.3.1.3). Moreover, SME skills development was identified as one of the key uses for the 20 per cent of the levy that was to be retained for use by the National Skills Fund (DoL 1997: 8.5).

I noted earlier that the Small Business White Paper had talked of a form of internships for micro and small entrepreneurs and that the DoL subsequently developed a similar yet different proposal. The Green Paper introduced learnerships as the key delivery mechanism for skills development. It argued that a special form of learnerships was likely to be needed for SMEs. It envisaged that the structured learning element of these SME qualifications would need to combine both entrepreneurial and technical skills. For the structured work experience part, the Green Paper acknowledged the likely problems in getting a placement in a relevant SME. This led to two possible alternatives. First, that SME learners should get work experience across a series of relevant SMEs. Second, that they should be assisted to gain work experience through 'pre-arranged and supervised sub-contracting work' (DoL 1997: 4.5.6.4).

Whilst these were innovative proposals that indicated a genuine desire to engage with the particular needs of SMEs, the difference from the DTI vision is significant. The DTI position represented the archetypal enterprise developers' view that it is most effective to work with those already in the sector. The DoL version appeared to reflect the similarly typical view of trainers that the main challenge is in addressing the situation of the preemployed.

It is also understandable that part of the vision of the Green Paper was one of inclusiveness, manifested in one aspect through the integration of small and micro enterprises into the national training strategy for the first time. However, questions have been raised as to whether this proposed integration is potentially disadvantageous for SMEs as it seeks to force them into an excessively formal qualifications structure, rather than building from their own skills needs (King 1997; King & McGrath 2002). Here again, there is a danger that a training logic (from the formal sector) is being imposed upon issues of enterprise development.

However, ironically, the Green Paper was elsewhere blocked in its attempts to effect radical change in the training system by the nature of the post-apartheid organisation of government portfolios. In spite of the best efforts of the Cosatu training lobby, a major responsibility for the supply side of training remains with a separate DoE (and nine provincial departments), which control the FET college sector. This means that whilst the Green Paper raised the issue of linking learnerships with college programmes, it had to acknowledge that this must be a matter for the DoE to decide upon (DoL 1997: 8.7). As I shall argue subsequently, the degree of policy incoherence

between the Departments of Education and Labour remains a major constraint on any move towards 'joined-up policy' in skills development generally and skills for self-employment in particular. It is also a serious obstacle to the broader attempt to construct a higher skill, more inclusive economy.

The NSDS

The NSDS was very much in keeping with the Green Paper's vision. It came at a point when the institutional architecture proposed by the Green Paper (SETAs, levy-grant and learnerships) had finally come into existence and can be read as a reiteration of the vision that was intended to guide the workings of the new system. The sub-title of the NSDS: *Skills for productive citizenship for all* (DoL 2001a), was indicative of the DoL's strong inclusiveness drive. The NSDS stressed the dual mandate of the skills development system to respond both to the challenges of globalisation and international competitiveness on the one hand and poverty reduction and social development on the other. As Kraak argues elsewhere in this book, this is a version of the high skill account that acknowledges the particularly serious social inclusion challenge faced by South Africa.

It was clear in the NSDS that the formal sector could not be the sole focus of skills policy given its small size and even smaller potential for employment creation in comparison to the SMME/informal sector (DoL 2001a: 2.2; 3.1). One of the five objectives of the NSDS was 'to stimulate and support skills development in small business' (DoL 2001a: 2.4).

The NSDS also appeared to reflect a maturing vision of the nature of the SMME sector within the DoL. Whilst acknowledging that many SMMEs are survivalist, it did not fall into the trap of seeing them as being just a social protection issue, or wishing them out of existence:

Many small businesses in our country are 'informal' and fall outside regulatory and taxation arrangements. In practice, many are trapped at the low-value adding end of the production spectrum. The challenge is to assist these enterprises to climb the value chain and this will require skills. (DoL 2001a: 3.4) The NSDS clearly distinguished between survivalist and sustainable small and micro enterprises and saw skill as an important element of strategies for both (DoL 2001a: 3.26–3.27). It also acknowledged the importance of other elements of enterprise development and called upon the SETAs to collaborate with DTI and its agencies in developing a coherent strategy.

Although the formal sector can be argued to have driven the initial development of the DoLs skills development strategy, the importance of the SMME sector has been an important sub-theme in these key policy documents. Policy has clearly encouraged the SETAs towards inclusivity of both membership and focus. It has also stressed the importance of the articulation between the DoL's policy and those of the DoE and DTI. However, the extent to which these emphases have been successful in practice is something I will return to later in the chapter, after turning now to see what it is in the DoE's policy that there is to articulate with.

DoE policy

My earlier chapter considers key elements of the DoE's strategy for reconfiguring the FET sector, the most relevant part of the education system for this book and for my concerns in this chapter. My story there focused on the main thrust of this policy process, which has been about a reconfiguration of provider institutions. However, I will focus on another element; one that has been surprisingly under-emphasised. In earlier papers (McGrath 1998 and 2000), I have analysed the evolution of South African FET policy at length from the perspective of its account of training for self-employment. I will largely summarise that argument before updating it to take account of more recent developments.

One of the most striking changes in the FET policy as it moved from a report by the National Committee on Further Education (DoE 1997), through a Green Paper (DoE 1998) and White Paper (RSA 1998a) to an Act (RSA 1998b) and later an implementation strategy (DoE 1999) was the diminution of official attention to the issue of training for self-employment and, indeed to any sophisticated understanding of the nature of the skills that the system should be trying to develop (McGrath 2000). Moreover, even at the start of this process, the apparent understanding of these issues was weak.

The National Committee for Further Education Report

Although the report did acknowledge the importance of training for selfemployment, it was not fully developed. Indeed, the report as a whole was inadequately conceptualised in terms of issues about globalisation, work and the likely future trajectory of the South African economy (McGrath 2000). As a result, it failed to address the likely labour market destinations of the learners it was concerned to serve. Thus, no clear picture emerged of the linkage of FET to either formal sector or informal sector employment. The work of the committee was, thus, strangely disarticulated from the parallel processes going on in the DoL.

The reason for this can only be speculated at but it appears that the DoE, and its favoured stakeholders, were determined to emphasise an educational rather than an economic rationale for FET and to stress equity over growth. However, it can be argued that such a position was taken to an extreme in this and subsequent documents that prevented any real engagement with the genuine attempts of the DoL to address skills through the lenses of both equity and growth.

The Green Paper

The Green Paper did contain a more sophisticated reading of the nature and likely trajectory of the South African and global economies. It also stressed the need to work with the DoL on the development of learnerships (DoE 1998: 1.1.3). On the issue of the informal sector, the Green Paper noted:

The significance of the rural and informal economies: Perhaps only 30% of South Africans are the beneficiaries of formal employment. The majority of citizens find themselves systematically excluded from full employment and urban life. Many are engaged in the informal economy, especially in cities and towns. Many others are unemployed. In these local economies, world-class manufacture is likely to have little role to play, beyond the limited possibility of some outsourcing and the growth of small informal sector businesses. (DoE 1998: 4.5.5)
However, this was as far as the Green Paper went on the subject. The issue of the informal sector was completely absent when the 'future challenges' for the funding system were considered (DoE 1998: 3). Indeed, there was only one further reference to SMMEs or the informal sector in the rest of the Green Paper. This can be contrasted with a number of statements that implied a focus on formal sector job creation, in spite of economic realities. None of the DTI's vision of vibrant SMMEs or the DoL's argument that there exist skills needs for all workers and all enterprises can be seen in the Green Paper's account.

The White Paper

I have argued that the Green Paper's attempt to embed FET policy in its economic context was too limited (McGrath 2000). However, the White Paper rejected even this limited attempt as 'economism' (RSA 1998a: 1.5). In the whole of the White Paper, there was only one paragraph that made mention of the economy at all, with one passing reference to the need to develop 'programmes to promote enterprise development, entrepreneurship and job creation' (RSA 1998a: 5.25).

The National Strategy for Further Education and Training

Even this small commitment to training for self-employment in the White Paper disappeared by the time the DoE developed a strategy document for the sector in the following year. Thus, it appears from a strict reading of the policy documents of the DoE that there is no real mandate for a focus on training for self-employment. How this is understood within the provider institutions it controls, however, is another matter, as I shall discuss shortly.

The Human Resource Development Strategy for South Africa

The issue of policy coherence has been a major commitment of the Mbeki Presidency since 1999. This has been manifested in a series of interdepartmental strategy documents on issues of particular national priority. One of these is the area of human resources development, and resulted in the publication of a joint document by the DoL and DoE in 2001 – the *Human* *Resource Development Strategy for South Africa* (HRDS) (DoE & DoL 2001 – see also Chapters Five and Ten).

Given what I have said about policy developments in the two departments, the HRDS gives the impression of having been driven more in the FET/skills development area by the DoL's more sophisticated and inclusive vision.

In keeping with the objectives set out in the NSDS, one of the 22 objectives proposed by the HRDS was 'skills development for SMME sector' (DoE and DoL 2001: 17). Moreover, this was chosen as one of the seven priorities for the first year of the strategy (DoE and DoL 2001: 19). The HRDS also echoed the NSDS's concerns with addressing the needs of both survivalists and sustainable SMMEs (DoE and DoL 2001: 42–3), and reiterated the DoL's view that skills development for SMMEs must articulate with other elements of enterprise development strategy. In the context of skills development for enterprise development, the most striking point made by the HRDS concerned the work of technical colleges:

These [technical] colleges need to become more responsive to the employment opportunities in the SMME sector. This is the only sector where the prospects for employment growth at an intermediate level are strong. (DoE and DoL 2001: 32)

This appears to reinstate a concern that had been lost from the DoE's policy vision. However, its exact status within the DoE remains unclear. Whilst *A New Institutional Landscape for Public Further Education and Training Colleges* (DoE 2001) aligned itself to the overall objectives of the HRDS, it made no mention whatsoever of this element of the HRDS vision. The 'landscape' was for merged colleges but the presence of SMMEs in their local landscapes was not addressed. Equally, the subsequent restatement of overall educational priorities in the *Tirisano Strategic Plan for the Department of Education*, 2002–2004 (DoE 2002) made no mention of this commitment.

Joined up or fallen between the cracks – South African skills-for-enterprise policy

What, then, does South African policy on skills development for enterprise development amount to? This is not easily answered. The policies of both the DTI and the DoL display a clear commitment to the issue. Moreover, they stress the need for inter-departmental policy coherence, and the importance of this issue being seen as part of broader national strategies for skills and enterprise development. Both Departments also have a strong sense of the need for stakeholder involvement and the creation of consensus around national policies, although they differ as to whether skills development for enterprise development requires its own sectoral institution. Nonetheless, there is apparent agreement on the role that SETAs should play in promotion of the skills needs of all enterprises. Equally, both Departments acknowledge the diversity of SMMEs and the need for strategies that address different segments.

This high degree of consensus around the issue is undermined, however, when the DoE is added into the picture. Education policy does not appear to acknowledge the importance of the issue at all. Moreover, it seems unwilling to acknowledge that there is a particular challenge in working with survivalists. Although the HRDS suggests a shift towards a more coherent strategy with the DoL, the extent of such a shift is brought into serious question by the lack of reflection of key elements of the HRDS in the subsequent Departmental strategy document. The challenge of developing a coherent strategy across all skills levels, thus, appears to be undermined by the lack of an adequate educational response.

The enterprise and training policies do contain within them a largely consistent vision of how South Africa can build skills from the lowest to the highest levels and thus upskill all South Africans. They represent an account that is basically in keeping with high skill theory in suggesting that skills at all levels can be developed in ways that promote both competitiveness and equity, and both also see an important role for the state as a catalyst for change. However, the failure of the education policy to engage with a similar discourse has seriously undermined the prospects for a coherent strategy on skills for all being developed across government.

So far, I have been looking at policy primarily in terms of official statements. However, policy can also be understood in terms of how these statements are translated into practices. A detailed discussion of practices is beyond the scope of this chapter but there are a number of important points that can be made about the process of moving beyond the series of policy statements I have examined.

From policy to practice

In spite of the official commitment to inter-departmental co-operation, it appears that this is still weak in practice. In spite of processes such as the HRDS, there is still much more work to be done on developing a conscious and concerted strategy to collaborate on key issues such as learnerships. It was only in July 2001, more than seven years after their establishment, that the DoL and DTI made the first detailed attempt to build a common understanding on skills development for enterprise development.

The positive step of the two departments holding a three-day workshop on skills development for enterprise development reflected the opportunity created by the Cabinet's decision some months earlier to give the Ntsika Enterprise Promotion Agency the official mandate for this field. However, the development of an understanding between the DoL and Ntsika has proved short-lived. After only a year, Ntsika's early attempts to develop strategy in this area were undermined by the DTIs decision to reorganise the work of its agencies, which led to the mandate being transferred to the National Productivity Institute. Thus, the DTI appears to have moved its operationalisation of skills development for enterprise development back onto the starting line.

Part of the problem that arises from the DTIs weakness in moving beyond policy pronouncement is that it has developed neither an effective consensus around key themes, such as skills for SMMEs, nor a set of well-embedded and functioning institutions, whether at the national, sectoral or regional levels.

The DoL has been far stronger in this regard, with the establishment of the SETAs and the strategic use of the National Skills Fund to encourage them to focus a significant part of their efforts on SMMEs (see Chapter Five). Whilst the SETAs remain young and relatively fragile, there are genuine signs of both a consensus and a framework on the importance of supporting SMME skills within the Labour field.

Although I have argued that there is little or no mandate for training for selfemployment in the DoE's official statements, it is apparent that the public technical colleges do increasingly see themselves as having a dual mandate of preparation for wage and self-employment (King & McGrath 2002; Gamble 2003). The DoE's strong encouragement of them to become more responsive to the labour market and to various forms of demand seems to have been widely understood as including a self-employment dimension in spite of the lack of policy support for such a reading. Thus, it appears that a more positive account of the FET dimension of enterprise development is warranted than seems justified from a simple reading of official policy. Nonetheless, the weakness of policy in this area is likely to continue to hamper the efforts of colleges to realign themselves. In particular, colleges have so far played a rather marginal role in the evolution of learnerships and those for SMMEs in particular.

Overall, there have been some important efforts to operationalise policy on skills development for enterprise development. However, inter-departmental co-ordination remains too much of an aspiration rather than a reality. Equally, the DTI's failure to develop a strong lead agency for this policy area seriously undermines efforts to build a meaningful cross-departmental vision or strong societal structures and consensus.

There is an urgent need for a clear vision and practice of building SMME skills that needs to take into account issues of poverty, exclusion and redress as well as those of growth and competitiveness. There are elements of such a vision within South African government positions but there is nothing that brings them together from coherent policies through viable institutions to effective practices. Without these elements, a South African higher skills path cannot be developed.

Notes

1 One of the challenges of writing on this topic is the degree of conceptual confusion and contestation. The South African notion of small, medium and micro enterprise includes enterprises of a size and complexity that would normally exclude them from parallel discussions elsewhere in Africa. Moreover, for the purpose of this chapter, I will assume that the skills development challenges of medium size enterprises approximate those of large enterprises and fall outside my main interest. The concept of SMME also clearly cuts across the formal–informal divide. In reality, this divide is not definitionally clear-cut. However, in this discussion of African experiences, it is important to remember that most micro and small firms from the rest of Africa would most sensibly be considered as informal in terms of their employment practices and operational complexity whether or not they are formally registered.

10 Rethinking the high skills thesis in South Africa

Andre Kraak

Introduction

This chapter interrogates the usefulness of the high skills thesis in South Africa. It builds on the discussion started by David Ashton, in Chapter Four, who argues against the dominant logic in the high skills thesis that for a high skills transition to take place, the low skills regime must be fully transcended. The high skills transition is characterised as all-embracing and pervasive in the international literature. Ashton's call is for a more simultaneous upskilling of all economic sectors and workers, high skill and low. Ashton also maintains that a low skill strategy should be viewed in a positive light in South Africa, as was the case in East Asia in the 1970s and 1980s, as a solution to mass unemployment and as a trigger to more labour-intensive forms of employment.

The discussion thus starts with a more intensive engagement with and critique of the theory of high skills. The analysis argues that the theoretical model which originates from the work of Brown, Green and Lauder (2001), but which draws on a much wider international social and economic literature on post-Fordism, flexible specialisation, institutional economics and unified education and training systems, fails to take into account two crucial points. Firstly, it does not address the highly uneven way in which high skills and high performance production systems have evolved in the developed world. Secondly, it ignores the very harsh conditions and constraints that face developing economies in their attempts to move up the value chain. The chapter then proposes a more appropriate conceptual framework for conceiving of skill formation systems in both the developed and developing world. This would entail certain adaptations to the conceptual

framework developed by Brown *et al.* and not an outright rejection of what remains a very useful theoretical foundation.

The chapter then reviews the *National Skills Development Strategy* (NSDS) in this new theoretical light, and suggests that it is a good example of the alternate model proposed, which emphasises simultaneous upskilling in the low, intermediate and high skill sectors of the South African economy. The analysis then goes on to interrogate the feasibility of this ambitious project. The chapter concludes that several structural factors – some global, others political, economic as well as operational – will act to limit this simultaneous multi-layered upskilling at the low, intermediate and high skill sectors.

The need to rethink the high skills thesis

Exaggerating the spread of high skills

The new high performance production systems and their associated high skill regimes are often portrayed in the literature on post-Fordism, flexible specialisation, institutional economics and unified education and training (ET) systems from which the high skills thesis emanates¹ as widely distributed, ever-present and all-pervasive. The reality is a much less discontinuous process of change with forms of productive and social organisation continuing from the past into the present alongside the leading networks of innovation - both in the advanced and developing economies. Fordist, massproducing manufacturing, low skill labour intensive production and economic activity based on familial labour – to cite three examples – continue to exist alongside the new high-tech networked economy in both the advanced societies as well as in the developing world. The diffusion of the new high skill production techniques is more uneven than acknowledged in the literature. It does not totally displace old forms of social and economic organisation, but rather, co-exists alongside them to become the new commanding heights of most advanced national economies. Therefore, the most severe limitation on the idea of a high skills utopia in the advanced economies of the world is the continuation of old forms of economic organisation - Fordism - and its return to profitability in the 1990s, particularly in the United Kingdom and America. Many analysts argue that Fordist forms of production (mass production) continue to flourish, based on

the continuation and expansion of low wage, low skill jobs. In the United Kingdom, according to Keep:

... far from being dead, Fordism and neo-Fordism is a growing and powerful model of competitive advantage within the UK economy, especially within large swathes of the service sector. While mass production may have declined as the dominant model for the manufacture of consumer goods it offers, in combination with economy of scale advantages, the promise of salvation to many major UK retail chains, retail banks, and insurance companies. Managements compete to achieve the lowest possible cost base, seeing it as the key to achieving profitability from delivering a narrow range of standardised goods and services in markets that are primarily driven by price. (Keep 1999: 330)

Multinational corporations are playing a key role in the United Kingdom where significant new foreign direct investment has been recruited on the basis of low-cost, low skill production with 'few backward and forward linkages which would embed foreign investment and raise skill levels' (Brown *et al.* 2001: 233).

The reality of high skill production is that it actually only occurs in a few sectors in the leading advanced economies, including: information technology; biotechnology; pharmaceuticals; aircraft manufacture; machine tools; the high skill end of financial and business services; and the high professions in the civil service, law and medicine.

The continued significance of manufacturing

Castells, the pre-eminent theorist of the new economy, argues that it is only the core activities of national economies that are globalised. He lists these activities as: financial markets; the information and communications technology (ICT) sector; international trade, particularly high value-added exports and the activities of multi-national corporations; and lastly, the internationalisation of science and technology (S&T) and human capital formation (Castells 2001). Castells also describes those who are excluded from these global networks as 'the disconnected' – the structurally irrelevant – who reside in the third and fourth worlds and in the pockets of poverty in the advanced economies as well. However, these core and periphery components do not constitute the total society, for in between is surely middle society. They are not accounted for in many of the explanations of globalisation although they probably constitute the majority of society. For countries such as South Africa, the stability and expansion of middle society (including the lower strata of the civil service, salaried and unionised manual, semi-skilled and skilled workers, and all intermediate skilled personnel such as clerical and sales workers) is the paramount political goal. Their jobs and security lie in an expanded manufacturing sector, in a revitalisation of the mines and farms, in the state and in small, micro and medium enterprise (SMME) activity. Much of this economic activity and livelihood is a continuation and expansion of past economic forms. Globalisation's advance does not bring to an end older economic forms and social institutions.

The problem of ignoring middle society is related to an exaggeration of the changes impacting on manufacturing. Analyses of economic change tend to overstate the shift within manufacturing towards higher value-added production, and to over-emphasise the shift from manufacturing to services, particularly the high skill 'information age services. The reality is far less dramatic.

Chang (1994: 56–58) argues that manufacturing is still important to national economic strategies. He makes a distinction between the problem of deindustrialisation (the decrease in the share of manufacturing employment) and industrial decline. Whilst the former is an international long-term trend, it does not suggest decline and stagnation. Rather, manufacturing continues to be a central component of international competitiveness, albeit with lower aggregate employment, on the basis of higher productivity levels.

The neglect of middle society and of manufacturing, has a further ripple effect – the undervaluing of intermediate skills. Crouch *et al.* (1999) make the case for a more nuanced reading of industrial change currently taking place. They establish a useful correspondence between high, intermediate and low skill bands and certain economic sectors dependent on these skill bands. This correspondence arises because certain product markets lend themselves to particular skill inputs – low, intermediate or high. The three sectoral bands, categorised according to dominant skill requirements, are:

- *High skill sectors:* petrol, gas, chemicals, dyes, paints, pharmaceuticals, and office equipment;
- *Intermediate skill sectors:* engines, machine tools, metal machine tools, and non-electric machines; and
- *Low skill sectors:* meat, rubber, leather goods, rubber goods, textiles. (Brown *et al.* 2001: 145)

Brown et al. argue that Germany and Japan have much larger shares of world trade in intermediate skill sectors, whereas, in contrast, the United Kingdom has a low share of the intermediate skill sector as compared with its share of the high skill product sectors (2001: 62–66). These trends are evident in Table 11, where the German export profile bulges outward at the intermediate skill levels, whereas the United Kingdom export profile is vase-shaped, tapering from top to bottom, with the lowest share of exported intermediate skill products of all the comparator countries:

Country	High skills sectors	Intermediate skills	Low skills sectors
		sectors	
Germany	1.067	2.608	0.524
Japan	1.253	1.698	0.306
UK	0.886	0.646	0.238
USA	1.679	1.699	0.479

Table 11: Country sector exports as a percentage of total world exports in 1994

Source: Brown et al. 2001: 145

The significance of the above analysis is that manufacturing and intermediate skilling continue to be important to the economies of several advanced countries, except in the case of the United Kingdom, which has experienced a noticeable decline in manufacturing capacity at the intermediate skill level (Keep 1999).

Towards a more appropriate conceptual framework for developing countries

There are clearly serious conceptual problems with the ideal-type categories of high skill societies as defined by the high skills discourse. What is required is a conceptual model that allows for far greater unevenness and variability in terms of the skill needs required by a country's specific development trajectory, particularly those countries located in the developing world. They are unlikely to be only high skills.

It is proposed that this can be done by adopting a hybrid (or mixed) typology of production regimes that aims to move beyond the methodological limitations described above. It does so by capturing the co-existence of multiple production processes more accurately. The typology relies heavily on Hirst and Zeitlin's usage of the concept 'hybrid'. They argue that there is no certainty about the precise form of industrial change, other than to stress its contingent nature, and the likelihood of it taking on a mixed character of old and new constituent parts. Hybrid modes of regulation will emerge as combinations of elements from both 'ideal-type' forms of industrial organisation (Fordism and post-Fordism):

... hybrid forms of productive organisation are the rule rather than the exception ... The resulting interpenetration of elements of flexible and mass production also means that firms often find it easier to shift strategies from one pole to another than an abstract consideration of the two models might lead one to expect ... [The] simple ideal type is just a part in a more complex and multilayered process of theorisation. This process emphasises the importance of social context, the complexity of coexisting strategies and structures of manufacturing, the contingent nature of their conditions of existence, and the variety of possible outcomes. (Hirst & Zeitlin 1991: 6, 26)

By employing this concept of hybridity it can be argued that the new production techniques based on high skills often co-exist alongside older forms of industrial organisation such as batch (reliant on artisal skills) and mass production (reliant on the mass provision of operative and intermediate skills). The new high-performance production techniques and their associated high skill requirements are, therefore, never totalising expressions of national economic need but rather reflect the demands only of those strategic sub-sectors which have undergone change towards the new high skill, high performance production regimes. The transition to a new mode of regulation is therefore uneven and the dominance of a particular industrial paradigm is never total.

Applying the hybrid model to the developing world

The second most significant weakness of the skill typologies developed by Brown *et al.* and other writers on high skills is that they have not attempted to apply their model to countries other than predominantly high skill societies. In the case of the United Kingdom, the authors acknowledge high levels of skill differentiation within one nation state which they term bipolar – both low skill and high skill formation with increasing skill polarisation taking place in one society simultaneously.

However, there is even more extreme skill differentiation in the case of developing economies. The push for higher skills is also applicable here as Kaplinsky (1995) confirms, because even these less developed countries need to build strategies of moving up the value chain towards higher value-added production. Kaplinsky argues that the path to sustainable income growth for less developed countries is to escape from the 'immiserising' production of undifferentiated, low value-added goods which face declining terms of trade because they are subject to intense competitive pressures (Kaplinsky 1995: 6).

Kaplinsky adds to the concept of 'hybridity' (specifically in his application of the concept in the developing world) by arguing that the new production techniques are seldom introduced '*en bloc*', that is, systemically, but rather, in piecemeal style over time and altered by local social, cultural and economic conditions (1995: 7). He argues that firms do not always follow a linear, sequential path of adoption. They often restrict changes to specific techniques in isolation of other elements of systemic change. In a number of case studies in less developed economies, Kaplinsky shows that diffusion has taken place partially, with the introduction of key elements of higher value-adding production (such as the new work organisational techniques) in the absence of other elements (for example, the high educational levels normally associated with high skill high-performance production systems in the developed world). However, he notes that as countries move toward a more complete, systemic adoption of all of these new techniques, higher levels of education are required (Kaplinsky 1995: 16).

A country such as South Africa complicates the typologies even further, because it does not fit easily into first or third world classifications, and has a

sufficiently developed industrial sector capable of diffusing several elements of the new production techniques.

Given all of the above, then, it would be more useful to talk of a hybrid and differentiated skills formation system in South Africa that, firstly, incorporated all three skill bands noted by Brown *et al.* and discussed earlier, and secondly, which sought to build a development strategy around their integrative and interlocking potential rather than their bifurcation – as is clearly the case in the typology developed for the United Kingdom. Table 12 attempts to develop this model of a hybrid and differentiated skills regime appropriate to South African conditions alongside three of the high skill ideal-types developed by Brown *et al.* for Germany, Singapore and the United Kingdom.

Conceiving of a skills development strategy in this manner for South Africa as envisaged in Table 12 would entail three complementary skills development components, these being:

- Developing a high-skills enclave: South Africa has a relatively sophisticated transport, information technology, telecommunications, financial markets, higher education and science and technology infrastructure, all of which require and employ highly skilled personnel. In addition, since the demise of apartheid, South Africa has been relatively successful in increasing higher value-added exports, especially in the automobile sector. Other recent economic developments (such as the 'Blue IQ' innovation hub development in Gauteng), suggest that there is clearly the demand for, and infrastructure capable of, handling higher skill, higher value added goods and services, although restricted to a smaller enclave as compared with the high-end manufacturing and services sectors in the advanced countries.
- Meeting the low to intermediate skills demands: The development and growth of the new high-tech enclave in manufacturing does not displace the previous regime in manufacturing, based on mass production and jobbing (small batch) labour processes. The growth of these sectors were restricted by apartheid's exclusion from the world economy, by the racial restrictions placed on growth in internal demand, and by the stagnation which set in as a result of the impact of import-substituting manufacture. The challenge now is to renew and expand the sector within the country and Southern African region, based on increased demand and improved

intermediate skills. Given that economic development cannot wait for a new generation of well-educated school leavers, South Africa will need to follow the Singaporean example of rapid socio-economic change achieved by upskilling the existing workforce, which Singapore succeeded in doing in only two decades (Ashton & Green 1996: 162; Brown, Green & Lauder 2001: 96).

Catering to the low skills informal sector: South Africa has a population of approximately 43 million people, 12.6 million of whom are economically active. Over 8 million of the economically active have jobs in the formal economy and another 1.3 million are employed in the informal economy. About 3.2 million are unemployed (DoE and DoL 2001: 38). South Africa is also characterised by a very high degree of income inequality and social polarisation far in excess of the problems faced by the United Kingdom and America. The challenge, then, is to pursue SMME development strategies that would incorporate the unemployed and those participating in survivalist activities in a more stable informal sector with stronger linkages into the formal economy. The priority would be more on job creation than significant skills upgrading. Appropriate low skills training in operating and sustaining SMMEs, self-employment, basic literacy and numeracy training would be the most important components of such a strategy. This low skills strategy would have a developmental rather than a pejorative (as is the case in the United Kingdom) association.

This typology, developed schematically above, is intended to highlight the differentiated skill needs of a country such as South Africa, whose political democracy and its public policy debates are founded – unlike in the United Kingdom and America – on reducing the extreme levels of income inequality and social polarisation inherited from apartheid and increasingly exacerbated by globalisation.

Viewing the NSDS in this new theoretical light

This differentiated skill typology is also founded on the dual emphasis in the NSDS on developing skills both in the formal economy (dominated by medium to large firms) and in the SMME sector – particularly for those vulnerable groupings excluded from formal sector employment. Unlike in the United Kingdom, where public policy reforms have acted to accentuate social

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Table 12: Adding South Africa to the Brown, Green & Lauder skills formation model

Typology:				
Key characteristics:	High skill society	Developmental high skill society	Bipolar high skill/ Iow skill	A hybrid and differentiated low, intermediate and high skill model
Country:	Germany	Singapore	United Kingdom	South Africa
Labour market-ET	Occupational	State-guided labour	Flexible labour	A highly segmented and inequitous labour
regime		ווומוגפר		a) a small flexible labour market for high -skills;
				b) a sizeable but weakly evolved internal labour market for low to intermediate
				 c) a large secondary labour market for the unskilled and unemployed.
Characteristics of	Stakeholder	Stakeholder	Shareholder	Shareholder capitalism, based on: domi-
the financial	capitalism, based	capitalism, based	capitalism, based	nance of stock market over industrial
system and its	on: interlocking	on:	on: dominance of	investments leading to short-term perspec-
impact on	links between bank	interlocking links	stock market over	tive and under-investment in productive
management style	finance and	between bank	industrial	capacity and HRD.
	industry allowing	finance and	investments leading	
	for long-term	industry supported	to short-term	
	development of	by state industrial	perspective and	
	productive capacity	policy.	under-investment in	
	and human		productive capacity	
	resource develop-		and HRD.	
	ment (HKU).			

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 Table 12 continued

Typology:				
Key characteristics:	High skill society	Developmental high skill society	Bipolar high skill/ Iow skill	A hybrid and differentiated low, intermediate and high skill model
Country:	Germany	Singapore	United Kingdom	South Africa
Characteristics of	Broad band of high	Rapid but uneven	Narrow band of	Small high skill enclave; weak internal
skill formation	skill elites; wide	distribution of skills;	high skill elites;	labour market catering to low to interme-
	skills distribution.	older workers less	skills polarisation;	diate skilled and highly unionised workers
		skilled; limited	larger group of low	located in the mineral extraction and semi-
		indigenous research	skill citizen.	fordist manufacturing economies; a large
		and development		peripheral economy for the poor, unskilled
		and innovation.		and unemployed with little education and
				training.
Form of	Social consensus	A 'developmental'	Minimal state	A weak 'developmental' state, torn
interaction	model; strong co-	state; conscious	action; market is	between two tendencies:
between the state	determination by	state intervention in	the dominant	a) The predominance of monetary and
and market	stakeholders of	market relations.	regulatory force.	fiscal policies over industrial and other
	state-market			more expansionary social development
	relations.			strategies;
				b) A strong rhetorical and some policy
				commitment to redistributive social
				policies in education, health, welfare
				and social infrastuctural development.
				Attempts at socially inclusive policies.

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Table 12 continued

Typology:				
Key characteristics:	High skill society	Developmental high skill society	Bipolar high skill/ Iow skill	A hybrid and differentiated low, intermediate and high skill model
Country:	Germany	Singapore	United Kingdom	South Africa
Key defining	Society which	The phenomenal	Economic competi-	Great inequalities in wealth between a
feature	meets the 'high	growth over the	tiveness rests on	small high skill, high income enclave, a
	skills' ideal type	past three decades	profitability of the	middle society characterised by employ-
	most closely; a high	was not based on	finance sector and	ment in the mineral extraction, manufac-
	skill, high wage	high skills but on a	certain hi-tech	turing industries and in the state, and a
	economy with	low cost, disciplin-	industries. Lower	large and highly impoverished citizenry
	relative income	ed workforce and a	productivity and	located in the urban townships and in the
	equality.	strategic location in	skills in manufac-	countryside.
		East Asia. Singapore,	turing and services.	The key objective of an effective skills
		however, has since	A large low skill	strategy in this context would be to have
		moved rapidly up	segment surrounds	complementary strategies that generate
		the value chain,	the high skills	employment at the high, intermediate and
		developing indige-	enclave, producing	low skill ends.
		nous capacity in	a bipolar high	
		high skill manufac-	skill/low skill model	
		turing and services.	of skill formation.	

inequality and social polarisation, in South Africa, the NSDS provides the basis for integrating skills development and economic growth at all three levels.

Can the NSDS deliver on such a multi-layered strategy?

The central question to be answered is whether the new South African institutional regime for skills development has the capacity to deliver across such a vast and ambitious terrain – growing the export-oriented high skills economy, renewing the old intermediate sectors of the economy, and meeting the basic needs of those most vulnerable in the labour market. The chapter concludes by highlighting several structural factors – some global, others political, economic as well as operational – that will act to limit this transition to a better skills development system for all.

Threats from the global economy

The most powerful constraint that will limit the impact of the NSDS is clearly globalisation's assault on social markets and institutional economies and the triumph of neo-liberalism worldwide.

The early 1990s was a period when the institutional economies of Europe and the Pacific Rim fared well, encouraged by the optimistic readings of the new production regime and the high skills society that dominated the academic literature in that period. This situation changed dramatically with the global economic crisis of the late 1990s. In this crisis period, Anglo-Saxon shareholder capitalism has become triumphant and the European, Japanese and Pacific Rim institutional economies have faced severe economic problems – with unemployment rates peaking at unprecedented highs of just below 10 per cent in Germany and 5 per cent in Japan (Dore 2000).

The causes of these negative conditions are complex, but the following factors are considered the most important in the German economy in the 1990s: the massive costs of German reunification after 1989; the threat from the newly industrialising countries; the inability to adapt fast enough to the rapidity of change; the inability to continuously remain at the leading edge of innovation; and lastly, the rise of elements of shareholder capitalism in the bastions of stakeholder capitalism (Crouch *et al.* 1999: 149; Brown *et al.* 2001: 87).

All of these factors pose a significant threat to the distinctive model of stakeholder capitalism in Germany, Japan, Singapore and South Korea – the leading high skill societies studied by Brown *et al.* As profit, shareholder value and short-term horizons substitute for the longer-term interlocking system of bank financed industrial development, as cost-cutting and deregulation pressures increase, and as the employees of national firms are increasingly located outside the home country and therefore outside of the specific institutional settings, rules and incentives for high skills training, so the institutional basis for the past economic success of the high skill societies are increasingly weakened.

In contrast to the economic woes of Germany, Japan, and the developing economies of the Pacific Rim, economic competitiveness has increased in the United Kingdom and America, although in a bipolar fashion founded on social polarisation with increasing poverty at the bottom end and a privileged high skill elite at the top. What is clear, therefore, is that the triumphalism of neo-liberalism and market regulation and the threats it poses for institutional economies limits the capacity of societies to capture the collective goods that are prerequisites for high performance production.

The global message is not all doom and gloom. Brown *et al.* report that notwithstanding the immense pressure of the global economic crisis of the 1990s, there is significant evidence of continuity, resilience and an impermeability of the cultural and social underpinnings of these distinctive institutional paths to skill formation. They argue that both the state and other non-market institutions have remained resilient to the pressures of market-led change thrust upon them by globalisation. For example, in Japan, Brown *et al.* report that there is no decisive convergence to shareholder capitalism. 'Institutional structures in the labour market and in corporate organisation, and by extension in the skills formation system, remain distinctive and changes to them have been modest' (Brown *et al.* 2001: 153). The distinctive Japanese practices of cross shareholding (between large companies and banks), supplier networks, and lifetime employment are all still in place (Dore 2000).

Similarly, in the German context, Brown *et al.* report that German firms remain loyal to the dual system of training and to other co-determinist principles, and even though they have invested heavily outside of the German

economy in the past decade, they still continue to replicate the high performance systems in foreign subsidiaries hoping to continue the successes achieved in the home country (Brown *et al.* 2001: 209). Underpinning this continuity, in the Japanese, German and Pacific Rim cases, are the social and cultural characteristics that have become deeply embedded in their skills formation and production regimes. There is no convergence towards a free market dominated system of skills formation diffused internationally by the global market.

It would appear that the power of neo-liberalism's ascendancy has more to do with ideological restructuring, where its key premises (deregulation) are presented as the only viable and economically rational response to internationalisation (Crouch & Streeck 1997: 11). The truth is a case of far greater variability with regard to national responses to globalisation and in establishing competitiveness strategies.

The challenge for South Africa will be to show similar resilience to protect the new cultural, political and social imprint the NSDS has inserted onto its new skills regime – the new institutions, co-determinist and social market arrangements – and in so doing, demonstrate that 'markets do not exist in the abstract, but are embedded within social and economic institutions that can be shaped in different ways to achieve improvements in productivity and economic growth' (Brown *et al.* 2001: 241). The role of institutional economies, therefore, will continue although perhaps in new forms more appropriate to deal with the rigours of globalisation.

Persistent structural problems in the local economy

Jobless growth

South Africa's economic problems are not only located at the global level but also locally. A characteristic feature of the South African economy in the late apartheid era has persisted into the post-1994 period – this has to do with the phenomenon referred to as 'jobless growth'. South Africa's economy has grown by moderate rates in the period 1996 to 2002, with GDP growth averaging between 2 and 4 per cent per annum (McCord 2003: 5). However, employment has declined, with 1.3 million jobs lost in the formal sector during this period (McCord 2003: 19).

There are a number of determinants of this phenomenon. Firstly, even though the government has succeeded in stabilising the key macroeconomic fundamentals such as control over government spending, reducing the budget deficit from 4.5 per cent in 1995 to 1.4 per cent in 2001, and reducing the inflation rate from a high in excess of 20 per cent in the early 1990s to just 6.5 per cent in 2001/2, these contractionary monetary and fiscal policies have also acted to undermine rather than enhance the prospects for economic and employment growth (McCord 2003: 5).

A second determinant of this low-growth, low-employment scenario has to do with South Africa's unique history, and in particular, the specific growth trajectory chosen, based on minerals extraction and import-substituting industrialisation. As Altman and Mayer (2003: 2) point out, this trajectory has created a growth path highly dependent on capital-intensive production processes and skilled labour. This development route, in combination with apartheid's segregationist policies, has led to massive unemployment of low skilled labour in both the rural former 'bantustans' and in the black urban townships – a debilitating structural feature of apartheid capitalism that has not diminished in the post-apartheid era.

South Africa's minerals-based economy has leap-frogged the very important development phase that has occurred in most other more successful newly-industrialised economies. This development phase, best characterised by the Pacific Rim countries, entails starting from the phase of low wage, low productivity, labour-intensive manufacturing for domestic consumption and export, before moving to the more advanced phase of more capital and skill-intensive manufacturing production for export. The leap-frogging of this development phase in the South African case to a model based on limited exports in highly capital- and skills-intensive manufacturing production has now become a 'resource curse' restricting South Africa's ability to promote large-scale labour-intensive employment growth through exports. (Altman & Mayer 2003: 6)

In addition, import-substituting industrialisation acted to exacerbate the tendency towards capital-intensive production, for example, as occurred in the development of the iron and steel, synthetic fuels and defence industries. Also, apartheid's restrictions on black South Africans resulted in poor human capital formation amongst blacks, thereby restricting the growth of a black artisanal class and small-scale labour-intensive manufacturing.

The opening up of the economy after 1994 through trade liberalisation reforms did not change the above structural constraints on widespread growth. Trade liberalisation has led to a growth in manufacturing exports with a bias towards capital- and skill-intensive production processes which has exacerbated the shedding of jobs in the formal sector (Altman & Mayer 2003: 2; McCord 2003: 20; McCord & Bhorat 2003: 4–5). The improvement in manufacturing exports since 1994 has not led to a rise in employment growth. On the contrary, there has been an ongoing 'skewing effect' whereby manufacturing exports have tended to be capital- and skill-intensive thereby leading to an increase in the demand for skilled labour and a massive growth in the unemployment of lowly-skilled workers (McCord & Bhorat 2003: 20).

Unskilled labour intensive exports declined from 8.9 per cent to 6.8 per cent of total exports between 1992 and 1999, while human capital-intensive exports increased from 49.5 per cent to 58.5 per cent during the same period (Lewis 2001). This trend is likely to increase as the government's newly released *Integrated Manufacturing Strategy* seeks to encourage knowledge and skills-intensity in manufacturing (DTI 2002).

A final factor in the persistence of the low growth/low employment scenario is the poor levels of both domestic savings and foreign direct investment (FDI). The result has been an average investment rate of only 15 per cent of GDP between 1994 and 2000, severely constraining overall growth prospects (McCord 2003: 11).

The continuance of key elements of the old economic regime has severe implications for skills development in the post-apartheid era. Most seriously, constrained demand has the effect of dissuading employers from treating training as an investment in their future prosperity. Rather, employers treat training as an immediate cost burden preferrably avoided. Secondly, the 'skewing effect' has the effect of exacerbating skill shortages at the high skills end in a context where supply-side institutions, also negatively affected by constrained demand, are unable to increase the outflow of high skill graduates into the labour market. These skill shortages act to inhibit the chances of FDI increasing significantly in the medium term. And lastly, the ranks of the unemployed grow daily with little prospect of employment, making training strategies that hope to secure job placements for graduated trainees even more difficult. The combination of all of these structural elements place severe limitations on the ability of the NSDS to make a real difference.

Continuing social inequality

The unequal structure of South African society has not diminished. The official unemployment rate using Statistics South Africa's narrow definition is currently at 26.4 per cent for 2001, while the broad definition is at 37 per cent, which includes all those who are not actively seeking work and who are characterised as 'discouraged workers' (McCord & Bhorat 2003: 12). Disaggregating these figures further reveals an extremely high unemployment rate of 42.9 per cent amongst Africans, 44.9 per cent amongst rural Africans, and 47.2 per cent amongst rural African women (McCord & Bhorat 2003).

Disaggregating even further by age and education, it can be seen that unemployment rates impact disproportionately on youth. For example, youth below the age of 30 constitute 56 per cent of the unemployed in South Africa. Education does not provide an automatic escape from youth unemployment, as there are still high levels of unemployment amongst people with matric (35 per cent of matriculants are unemployed) and tertiary qualifications (11 per cent of tertiary graduates face unemployment). These rigid social divisions place severe limits on the ability of a new skills development regime to diffuse skills and upgrade the skills base of the entire population.

The need for the state to trigger counterveiling conditions

A further problem lies with the failure of Government in its role as 'developmental state' in steering the economy up the value chain towards more highly skilled production. This refers specifically to the inability or unwillingness of the South African state to trigger the necessary demand and supply-side counterveiling conditions required to shift the country out of its low-growth, high unemployment predicament. As the section above has highlighted, a reliance on existing demand in the labour market will be insufficient in bringing about the required changes. Nor will mere improvements in the supply of education and training suffice. Additional measures are required to stimulate demand.

The 1997 *Green Paper on Skills Development* makes regular reference to the need for stimulating demand. It argues that 'there will need to be a paradigm shift in which the actual demand for skills within firms and industry changes' (DoL 1997: 14). Both the draft and final Green Papers advocate a critical role

for Government in supporting this shift to a higher skill paradigm. This would occur through Government facilitating the availability of strategic information on new industry growth points, declining industrial sectors, and the skill priorities and labour market changes that will arise as a consequence of these shifts in the medium to long term (DoL 1997: 14). The stimulation of demand for new skills would also occur through the effective articulation of Government policies across interrelated domains such as education, training, labour market regulation, and industrial restructuring. And lastly, the demand for skills can increase (particularly at the low end) when domestic demand in the national economy increases as a result of various Government infrastructural and employment creating interventions. Improved domestic demand leads to increased output, requiring increased employment of workers with skills.

However, in practice, these conditions rarely materialise. As Young argues in the case of the United Kingdom, demand-side measures are politically unpopular, a consequence of the:

... legacy of Neo-Liberal economics and a distrust of Keynesian demand-side interventions, that still shape government policies. An unresolved tension remains between a 'voluntarism' that assumes that employers should be left to decide their own HRD policies and the reality that the 'short-termism' of many employers makes this unlikely. (Young 2001a: 81)

In South Africa this has certainly been the case, with the Growth, Employment and Redistribution (GEAR) strategy, implemented in June 1996, imposing an orthodox set of monetarist policies aimed at attaining macroeconomic stabilisation. The main arms of the policy are fiscal austerity and monetary constraint aimed at reducing public debt and the inflation rate, complemented by trade and financial liberalisation and privatisation of state assets (McCord 2003: 16–17). The state has been very successful in attaining macroeconomic stabilisation. However, this has come at a severe cost – a dramatic failure to turn around poor growth and employment performance in South Africa.

There is now significant pressure on government from within its own tripartite alliance with the union movement and Communist Party and from representatives of civil society organisations to act to loosen these rigid conditions which contribute to constrained demand in the economy. With regard to industrial policy, government has targeted five key sectors that have considerable potential for increased outputs, exports and employment creation. These are: existing export sectors (including clothing and textiles; auto and auto-components; agro-processing; mining, metals and mineral benificiation; chemicals; biotechnology; crafts), tourism, ICT, and cultural industries (Altman & Mayer 2003: 23). Measures beyond industrial policy will also be required. These include:

- A relaxation by Government of its monetary and fiscal policies and the introduction of more expansionary measures to stimulate domestic demand.
- The generation of both high- as well as low-end employment opportunities since the high skills sector is not sufficiently large to address the massive employment deficit (McCord 2003: 15).
- By stimulating economic growth from within, South Africa becomes a more attractive investment opportunity for FDI. This must be complemented by targeted skills training in areas of high demand to allay the fears of foreign investors of high skills shortages. South Africa must also actively seek FDI in strategic sub-sectors of the economy.
- Implementing a package of welfare transfers, for example, a basic income grant, unemployment benefits, or massive public works schemes that compensate for the loss of wage labour and stimulate domestic demand.
- Promoting redistribution by prioritising and implementing social sector reforms (McCord 2003: 46).

A more expansionary policy as suggested above implies several complementary strategies running in tandem with each other. On the one hand, a high skills, high productivity value-adding manufacturing export strategy will remain the centre piece of the government's *Integrated Manufacturing Strategy* (DTI 2002) which aims to promote economic growth, earn high incomes and foreign exchange, as well as enhance productivity and technological advance. On the other, Government will need to trigger complementary labour-intensive, lower-productivity activities which will expand employment using redistributive and income transfer mechanisms and funded by the high-productivity, income-generating export sectors.

This basket of counterveiling conditions has not been implemented by government so far, largely because it is over-reliant on its monetary and fiscal instruments as the key means of regulating the economy - at the expense of industrial and other social developmental growth strategies. More significantly, the new state has failed to put in place the necessary interlocking policy measures ('joined up' policy) that are required to break the log-jam of jobless growth, segmented labour markets and continuing inequities in education and social well-being. The key gaps in 'joined-up' policy are those between the DoE, DoL, DTI, and Department of Science and Technology (DST). For example, the DoE and DoL were not integrated into one state department in 1994 as recommended by the key education and training policy texts. The policy logic for integration was not well communicated beyond the education policy domain. This decision has had serious ramifications, most importantly the failure of the new state to discard the political fieldoms and territorial modes of working that characterised the divide between 'education' and 'training' in the apartheid state (see Chapter Two). In addition, few meaningful linkages have been established between the DoE, the DTI (see Chapter Nine on the weakness of linkages in the area of SMME development) and the DS&T. These divisions within the state continue and seriously hinder the development of a comprehensive and well co-ordinated national skills development strategy for the country. They weaken the possibilities for attaining 'co-ordinated social market' policies founded on the idea of a developmental state. The short-lived Reconstruction and Development Programme (the key social market policy platform of the ANC in the elections of 1994 which was replaced by GEAR in June 1996) represents the best example of failed cross-sectoral attempts at policy co-ordination (Webster & Adler 1999).

Weaknesses in the institutional regime

An additional problem facing the NSDS is the inherent weaknesses of the new institutional regime. There are several problems here, the three most important being: the strong emphasis on state planning in a context characterised by weak national information systems; a proliferation and bureaucratisation of the new institutions with insufficient regard being given to society's capacity to manage and steer the new structures; and lastly, the continuation of a 'voluntarist' and 'short-term' employer mindset towards enterprise training.

The challenge of national co-ordination and planning

The entire NSDS is premised on tight and effective planning and coordination of skills development, employment creation and economic growth taking place at both national and sectoral levels. This requirement in turn is premised on the availability of management information systems (MIS) and national and sectoral databases existing that can provide data in a wide array of fields.

Chapter Five, on the NSDS, highlighted the sophisticated planning and coordination steps and procedures required by the NSDS. All of these requirements and steps presume significant informational precision and managerial capacity at enterprise, sectoral and national levels. Evidence is beginning to emerge that this capacity and informational precision is not always present and is unevenly spread across national, sectoral and workplace locales. In a survey of SETA planning needs done in June 2001 by the DoL, one of the key findings was that 'some SETAs don't need any support, some need limited support and others need extensive support' (DoL 2001c: 12). The study also indicated that SETAs needed extensive support in being able to undertake sectoral research and development, monitoring and evaluation of skills development implementation, and the enhancement of stakeholder capabilities to participate effectively in the process of skills planning (DoL 2001c: 12). A second investigation done by the DoL entailing an evaluation of all 25 SETA plans found that

... the majority of SETAs still had a long way to go before they were producing data of the standard required for international comparisons. Indeed, SETAs need to ensure that they adopt the correct sampling framework and also use standard international industrial and occupational (SIC and SOC) codes. (DoL 2001e: 6)

Writing from his perspective as the Director of the Skills Development Planning Unit in the DoL, Macun admits that the above demands for national and sectoral planning constitute a very ambitious project that is stretching capacity to the limits (Macun 2001: 177). The notions of planning and coordination as well as the drive for interlocking and complementary policy regimes are commendable and correct in their prognosis for success, but as levers for government intervention, they are derived from the developed and not the developing world. More specifically, these planning levers derive from countries that are highly literate, well-equipped with ICT capabilities which support good MIS databases, and where co-determinist practices equip key stakeholders to participate in the cumbersome process of skills development planning. Developing economies such as South Africa will struggle to support such a complex planning architecture.

Whilst the policy framework has been detailed in defining the planning architecture, it has been extremely thin on the need for developing capacity. Young, in a review of the NSDS, is concerned that the over-emphasis on both the architecture of planning and co-ordination, and the targets that need to be met as outputs of the NSDS, underemphasise and perhaps ignore the process of implementation and the capacities required. Young writes that the South African NSDS and *Human Resources Development Strategy* 'appear to follow the UK approach in concentrating on objectives, monitoring current provision, and targets'. These strategies 'give far less attention to the process of implementation and the new activities that would be involved in achieving the targets' (2001a: 82).

The proliferation and bureaucratisation of structures

Chapter Five of this book indicated the centrality of a new institutional environment in the NSDS. It has grown into an organisational colossus comprising several new bodies. For example, a key sub-component of the new institutional environment are those institutions concerned with the design, registration and quality assurance of qualifications, which include twelve National Standards Bodies (NSBs), over 100 Standards Generating Bodies (SGBs) and several Education and Training Quality Assurers (ETQAs). The management of this entire system of institutions falls to the South African Qualifications Authority (SAQA) whose main functions are to oversee the development of the NQF, register NSBs and SGBs, accredit ETQAs, and lastly, ensure international comparability of standards and qualifications.

It is clear that the new state will struggle to manage and steer such a large new institutional landscape. Although many of the above institutional elements fall outside the strict parameters of the new training regime, (which is governed primarily by the SETAs, the NSA and DoL), the new training regime's insertion within this wider institutional nexus (particularly those

bodies responsible for designing and registering qualifications) may have an overall limiting impact because of the sheer scale of the new institutional enterprise.

A further capacity concern would be the ability of the staff employed by the DoL to rise to the new challenges posed by the NSDS. Staff will need to transcend their old bureaucratic mindsets to fulfil the proactive supply-side roles envisaged in the new framework. In particular, the new Labour Centres and provincial offices which have emerged out of the old structures of the Department of Manpower will require personnel with entirely new skills: a capacity to shift from passive to active labour market support mechanisms (for example, the initiation of state-subsidised social development projects and social plans) and an empathy for the most vulnerable groups in society. The policy documents of the Department do not explain how this institutional and cultural change will come about. A recent quarterly report from the DoL measuring progress with the implementation of the NSDS highlights the ongoing weakness of the provincial offices in rolling out programmes and spending the monies allocated to them. On average, most provincial offices have only been able to spend 26 per cent of their financial allocations to date (DoL 2002b: 14-15). These offices are to be the main vehicles of the state's intervention to support the most vulnerable in the labour market.

Voluntarism, short-termism and opposition to the levy-grant system

The final problem facing the NSDS is the continuation of a 'voluntarist' and 'short-term' mindset towards enterprise training, with many employers disregarding the new levy-grant system and viewing it as an additional tax burden impacting negatively on cost structure and profit margins. In a recent review of the NSDS, Ravi Naidoo and David Jarvis from the National Labour and Economic Institute (Naledi) argue that:

A serious problem is that many companies are merely treating the skills levy as a new form of tax. For example, in the Manufacturing, Engineering and Related Services Education and Training Authority only 12 per cent of potential grant claims had been processed by April this year. The carrot approach to implementing the *Skills Development Act* [the levy-grant] has

proven to be an insufficient incentive. (*Mail & Guardian*, 20 September 2002)

Similar press coverage has emerged about specific SETAs. For example, in the textile SETA, several well-advertised roadshows to mobilise employer participation had been organised but the 'guys don't pitch' (*Sunday Times*, 9 June 2002). David Bowen, Chief Executive Officer of the SETA, maintains that this is a common occurrence 'but we have to accept we cannot force people to become involved. There is a lot of aggro among the small guys, who see this as more government interference in their business. They see this as an extra tax' (*Sunday Times*, 9 June 2002).

Government has reacted angrily to these claims. In February 2002, the DoL confirmed that over R3 billion in skills development funds had remained unspent. The Department, however, blamed the 'untouched billions on the many companies that did not take seriously the skills development of their staff' (*Business Day*, 26 February 2002). However, several SETA officials reject this claim and maintain that the regulations and procedures for claiming the levy are too bureaucratic. For example, Frank Groenewald of the Banking SETA argues that 'one of the biggest constraints is that most of the funds that must go through us and back to the firms are overly bureaucratised' (*Pretoria News Business Report*, 16 April 2002).

There is great unevenness in the effectiveness of SETAs and sectors with regard to participation in the NSDS. Out of the 230 421 employers who are registered with the South African Revenue Service and who are therefore required by law to pay the levy, only 65.5 per cent actually did so by November 2002 – a ratio significantly up from much lower participation rates in earlier periods (DoL 2002b: 5). Nonetheless, 34.5 per cent of firms are still not participating at all in the levy-grant system. In addition, participation rates amongst levy-paying employers varies greatly between sectors and SETAs, with very high rates in SETASA (the SETA for secondary agriculture) and MERSETA (SETA for manufacturing, engineering and related activities), and with the lowest rates in the public sector SETA (PSETA) and the military SETA (DIDETA) at 43.4 and 55 per cent respectively (DoL 2002b: 5).

Although levy-paying participation rates are around 65.5 per cent, grantclaiming participation rates are substantially lower – because of the 'shorttermist' and 'voluntarist' attitudes of employers cited above who view the levy-grant system as an additional tax. Reliable data on this is difficult to get from either the SETAs or the DoL. Badroodien in Chapter Five of this book suggests that just 10.4 per cent of levy-paying firms are effectively participating in the levy-grant system. That is, only 14 261 grants were paid out in 2002 in a context where 136 645 levy-paying employers were eligible for claiming such grants (DoL 2002b: 5, 10). This is clearly an insufficient basis from which to make the transition to a high skill society.

Conclusion

The NSDS faces formidable challenges and problems. The global environment is unfriendly to those countries choosing institutional economic and social market policies. Employers have not as yet been won over to the variegated high, intermediate and low skills logic of the NSDS. The new institutional environment, impressive as it is, poses massive capacity problems. And the South African economy appears to be stalled in a growth trajectory inherited from the past.

However, the NSDS meets the key premise of providing a differentiated and hybrid model of training provision as suggested in Table 12 – that of complementary skills development strategies at the high, intermediate and low skill ends. If this variegated approach to training is consolidated, and if Government shows the political will to introduce more expansionary and 'joined up' industry and other social developmental policies which act to kickstart the local economy and trigger growth, foreign direct investment, employment and upskilling, the future may yet reap significant rewards for the NSDS.

Notes

 See the following underpinning literature that has been central to the genesis of the high skills argument: Ashton & Green (1996); Brown *et al.* (2001); Castells (2001); Chang (1994); Crouch, Finegold & Sako (1999); Dore (2000); Finegold & Soskice (1988); Maurice, Sellier & Silvestre (1986); Piore & Sabel (1984) and Streeck (1992).

Towards economic prosperity and social justice: can South Africa show the way for policy-making on skills?

Lorna Unwin

Introduction

Amidst the assertive babble of the globalisation discourse, with its mantras on the rise of the knowledge economy and the end of the nation state, governments across the developed and developing world have difficult choices to make. Janus-like, at the same time as having to face outward towards the forces of globalisation, governments also have to look inwards to the needs, aspirations and capabilities of their populations. The strategies which governments adopt in their attempts to balance the demands from external pressures with internal realities necessarily vary as they reflect the socio-economic, political, cultural, historical and geographical characteristics of their individual nation states.

Manuel Castells (2000: 135) has argued that economic globalisation 'was made possible, and, by and large induced, by deliberate government policies'. He continues, 'The global economy was not created by markets, but by the interaction between markets and governments and international financial institutions acting on behalf of markets – or of their notion of what markets ought to be' (Castells 2000). Nation states, therefore, still have a considerable role to play in shaping the nature of the global economy whilst, at the same time, creating the internal conditions and infrastructures which might best respond to external pressures. The United Nations (UN) is also keen for governments to do more to assert their agency. At its World Summit on Sustainable Development, held in Johannesburg, the UN (2002) called for the development of workplace programmes and partnerships which took a longer-term perspective on economic prosperity.

In this book, we have seen how South Africa is attempting to position itself as an economic player on the world stage, whilst continuing to shake off the destructive legacy of colonialism and apartheid. In Chapter Twelve, Kraak stresses that South Africa complicates the typology of skill formation advocated by Brown, Green and Lauder (2001) because 'it does not easily fit into first or third world classifications, and has a sufficiently developed industrial sector capable of diffusing several elements of the new production techniques'. The South African Minister of Labour, Membathisi Mdladlana (2003: 1), recently stressed that the country's social partners had agreed to a vision in which South Africa would become 'the leading emerging market and destination of first choice for investors while retaining and expanding social equity and fair labour standards'. Whilst most countries would probably espouse a vision which seeks to combine economic prosperity with social justice, the combined weight of history and acute variations in living conditions give such a vision extra special meaning in South Africa. It is a country where, more than most, rhetoric needs very quickly to be turned into reality. South Africa could, then, be said to be a special case in global terms.

Yet, it is this singularity which makes South Africa such a valuable lens through which we can take a fresh look at some of the nostrums, such as the high skills thesis, which pervade the international debate on social and economic change. In particular, the South African context demands that we make a more critical, and possibly more sophisticated, appraisal of the contribution of vocational education and training (VET) and human resource development (HRD) to economic prosperity and social justice. All developed and developing countries share, albeit on differing scales, the dualisms which astonish visitors to South Africa as they try to reconcile the lifestyle of people in the townships with the life led behind the electronic gates of suburban mansions. Sassen (2002: 209–210) argues that, 'Economic globalisation has contributed to a new geography of centrality and marginality' in which increasing divisions between the relatively rich and the struggling poor are played out in the cities of the developed world, mirroring the global divisions between developed and developing countries.

In this chapter, I draw on the analyses provided elsewhere in this book in order to pursue four themes which, from my perspective, need to be addressed as South Africa moves forward with a strategy for skills. Firstly, I want to argue that the impact of economic globalisation should force social scientists to think much harder about contemporary concepts of VET and HRD and their relationship to national economies, communities and individuals. Secondly, I explore the ways in which a broader perspective on the meaning of skill might move us forward in terms of a more inclusive approach to individual and organisational capability and potential. Thirdly, I draw on the analysis by McGrath (Chapters Seven and Nine) and Kraak (Chapter Ten) of the fissures in the South African education and training system. I use their analysis to ask whether traditional demarcations, common to many countries at both provider and government level, need to be overhauled in order to better reflect the increasing inter-disciplinarity and hybrid patterns of working found in both the public and private sectors. The very institutions which countries have traditionally relied on to ensure society is properly prepared for, can benefit from, and, when necessary, can resist progressive change could be part of the problem. Finally, I propose that researchers should reflect on the nature and appropriateness of their own contribution to national development and their relationship to the policy-making community.

Economic change and definitions of skill

In order to confront the challenges of globalisation, South Africa has to square the economic reality and social justice circle. As Klein (2000: 261) notes, 'Multinationals that once boasted of their role as "engines of job growth" ... now prefer to identify themselves as engines of "economic growth". It's a subtle difference, but not if you happen to be looking for work'. To square the circle, Ashton (Chapter Four) argues that South Africa must create many more jobs currently categorised at the low skills end of the high skill–low skill continuum. The very use of terms such as 'low' and 'high' to define skill (itself a contested term) is, of course, problematic. Kraak forcefully argues in Chapter Ten that the high skill–low skill thesis falsely polarises working life, organisations, individuals and national economies by ignoring the large space that forms the 'middle' as characterised by: intermediate skills; people on average incomes; supply chain activity; and further education provision. In her chapter, Gamble reminds us that the concepts of 'craft' or 'being skilled' were once seen as integrated, holistic practices in which no distinction was made between knowledge (knowing) and skill (doing). Industrialisation, and particularly Fordist production systems, wrenched these concepts away from their social bases, and fragmented and depersonalised them. The new demarcations which now labelled jobs and tasks as 'unskilled', 'semi-skilled' and 'skilled' mapped on to social class divisions which in turn contributed to the categorisations adopted by national education systems.

Skill is, then, a tricky concept, as Gallie (1988: 7–8) explains:

The very complexity of the task of defining skill makes it implausible that skill classifications in industry reflect in an unproblematic way some objective hierarchy. Rather, they are likely to be the product of a continuous negotiation between employers and employees, in which both relative power resources and prevalent cultural beliefs will influence the grading structure.

Gallie's emphasis on the relationship between the status afforded to certain skills and their position vis-à-vis workplace power structures presents a challenge to one of the central tenets of the concept of the 'new economy', now being created in advanced countries and itself a by-product of globalisation. In this 'new economy', the service sector is dominant as manufacturing operations are moved to countries offering cheaper labour costs. The skills, which are now prized, are so-called soft or personal skills such as listening and responding to customers, collaborative team working, and multi-tasking. These skills have traditionally been classed as 'feminine', epitomised by nurses, secretaries and housewives. In line with Gallie's power analysis, these skills were thought to be intuitive or dispositions of character, rather than acquired through education and training, and so of a lower status (see also Probert 1999).

In some parts of the service sector, a new classification of 'aesthetic labour' has emerged, in recognition of the fact that employers now overtly select employees on the basis of their weight, sexuality, accent, and overall appearance. Combine 'aesthetic labour' (see Nickson, Warhurst, Witz & Cullen 1993) with Goleman's (1996) argument that 'emotional intelligence' is the major force in today's workplace and we see an accommodation between the new economy and the labour process which demands attention. When personal attributes (such as shiny hair, slim legs or a 'sexy' voice) become items on a job description or training programme, then the notion of skill takes on what Payne (2000) has called an 'unbearable lightness'. At the same time, however, if the new economy recognises and gives new status to a range of interpersonal skills which were previously overlooked or downgraded, then we may see a re-evaluation of jobs once classed as 'low skill' or 'unskilled', a move called for by Ashton in his chapter.

Throughout the developed world, countries are seeing a continuing shift away from manufacturing goods to providing services, and an increase in so-called knowledge-based (professional and managerial) jobs. The latest UK manufacturing company to shift production to China is the world-famous, Wedgewood, which has been making porcelain tableware in Stoke-on-Trent since the eighteenth century. At the same time, another hugely successful company, Dyson, which revolutionised the design of washing machines and vacuum cleaners, has shifted some of its production from the south-west of England to Malaysia. As craft and technician level jobs disappear, low-paid, though no less skilled jobs in the care sector, such as in nursing homes for the elderly, are rapidly expanding, alongside the armies of people required to staff the developed world's 24-hour consumer outlets such as supermarkets, restaurants and health clubs.

Rather than attempting to stem the decline in manufacturing, this move to a post-industrial economic order has been heralded by commentators and some governments as a new era in which knowledge will be the main commodity. Cooke (2002: 71) identifies the key 'knowledge-based industries' (financial services; information technologies; biotechnology and bio-sciences; and cultural industries) which, he argues, operate by 'selectively appropriating information as a resource to be exploited' and in which 'highly specialised knowledge is the key resource from which innovations flow, products, processes or services are developed and significant returns on investments can be earned'.

A different way to turn knowledge to societal advantage would be to adopt the complementary perspectives of Engestrom (2004) and Boreham (2002) who call for a move away from traditional hierarchical notions of the location of expertise and knowledge. Engestrom's contribution has been to expose the multi-dimensional nature of workplace expertise in which the horizontal plane is as important as the vertical, and within which employees constantly cross boundaries to share and build on each other's knowledge. In their
research, Boreham, Samurcay and Fischer have developed the concept of work-process knowledge, first articulated by Kruse (1986) and subsequently expanded by researchers in Germany. Put simply, work-process knowledge results from the integration of theoretical knowledge with experiential 'knowhow' in the course of solving problems at work. These ideas offer a much more democratic approach to the concept of skill as they begin from the premise that the vast majority of employees have a contribution to make to the wider workplace beyond their designated job. This, in turn, demands a more expansive approach to job design and work organisation so that skills are more widely distributed through organisations and knowledge is no longer seen as the preserve of the few.

Clearly, if governments pursue a high skills or knowledge-based economic future, this has implications for education provision and for workforce development, particularly for adults originally trained for or experienced in outdated work practices. The link between education and economic growth is, however, contested, and, furthermore, there is a danger that a simplistic expansion of educational participation sacrifices quality on the altar of quantity. As Wolf (2002) argues, the UK has rushed into spending millions of pounds on vocational training and higher education programmes of dubious quality when it might have been better to put those resources into improving primary and secondary schooling.

Governments do, of course, need to make some investment in and drive forward VET provision and participation, particularly in countries such as the UK where employers have shown a continued reluctance to pay for training. The deep flaw in government-funded VET in the UK over the past 20 years, however, has been to conceptualise VET as a deficit activity, rather than one whose prime goal is the development of job-related skills and transferable knowledge (see Unwin 2004). Hence, soft skills and attitudinal traits such as punctuality and 'willingness to work', have been brought together under the term 'employability skills' and then 'taught' prior to entry to work-based training programmes. This has underpinned a concerted effort by successive governments since the late 1970s to place the blame for unemployment on the unemployed, rather than on deficiencies in the nature of jobs and workplace conditions. Such an approach is linked to employers' demands that schools, colleges and, more recently, universities should produce graduates who will be immediately productive in the workplace. These demands run counter to the centuries-old concept of apprenticeship, which builds in a period of assimilation to and maturation within a community of practice (see Fuller & Unwin 2003). Furthermore, the belief that employability skills can be abstracted from their social context and taught in a classroom flies in the face of social theories of learning which emphasise the symbiosis between context and skill, the one continuously shaping and changing the other (see, amongst others, Engestrom 1994; Lave & Wenger 1991; Stevenson 2003).

Implications for VET provision

The challenge for South Africa, with its high unemployment levels and vast informal economy, is to find ways to help individuals develop the skills and knowledge they will need to enter the labour market in parallel with the economic development required to expand employment. The temptation may be to follow the UK and some other countries and invent 'employability' programmes, which may seem plausible on paper but tend to cause further disaffection among the unemployed. Gaetz and O'Grady (2002: 453), for example, studied homeless youths in Toronto who had participated in 'employability' programmes. They concluded that such interventions, on their own, will not move the young people into the economic mainstream. They add:

Rather, interventions that address social supports such as housing, counselling, health care, etc., are more likely to have a positive and long-term impact for many homeless youth (particularly those involved in squeegeeing, panhandling or the sex trade) than law enforcement strategies, admonitions to 'get a job', and mainstream employment programmes.

Field (2000) argues that, rather than confront labour market failure, policymakers will, unfortunately, retreat into training programmes for the unemployed because they have three advantages:

- They offer 'considerable legitimacy' (for example, helping the unemployed and providing subsidies to employers) and so are seen as 'safe' in political terms.
- They allow government to make non-regulatory interventions.
- Finance ministers (throughout the world) are minded to support human capital approaches.

Both Badroodien (2003) and McGrath (in Chapter Seven) have already hinted at such a danger in South Africa. Employability programmes divert attention from the hard work needed to create jobs and have the added disadvantage of making the unemployed appear solely responsible for their plight.

FET colleges in South Africa are undergoing considerable restructuring and are being required to be more 'responsive' (see Cosser et al. 2003 and Chapter Seven). In the words of the Minister of Education, Kadar Asmal, this means colleges must develop the capacity to 'offer greater support to learners, innovative partnerships with business, industry and communities, and an even more responsive and flexible curriculum' (Asmal 2002: 7). As Butler (2000: 334) points out, 'education organisations, and specifically those of VET, are also economic organisations (as producers of knowledge commodities, innovation and so 'value') in their own right' but they have allowed themselves to become complicit actors in the educational marketplace. This has led to vocational knowledge being largely redefined as 'industry relevant, just-in-time, ephemeral and disposable skills, with short use-by dates' (Butler 2000: 334). Industry dictates its terms and the boundaries between educational sites and the sites of education's 'customers' become increasingly blurred. Butler's warning deserves to be heard, not as a weapon in support of those who see education as a virginal process, not to be sullied by the dirty hands of the economy, but as a cause for reflection.

The 'responsiveness' agenda may push providers of further and higher education towards a more narrowly defined concept of HRD. This is damaging for both organisations and individuals. VET provides a broader contextual and critical canvas within which HRD strategies and practices can be developed. This critical faculty encourages the formulation of serious and challenging questions about: the efficacy of organisational structures and business plans; the promotion of individual career paths and life choices; the impact of policy and economics on communities and the environment; and the appropriateness of national game plans.

A major feature of South Africa's skills strategy is the 'learnership' programme, available to young people over the age of 16 and to the unemployed. As we have seen in this book, the apprenticeship system in South Africa was only open to whites over most of its history, was limited to certain sectors of the economy, and has been in serious decline for at least a decade.

Learnerships are intended to build on the universal apprenticeship tradition of combining skill formation through work experience with periods of vocational education, but will also lead to a qualification within the country's National Qualifications Framework (NQF). The four key aims of the programme are to: generate demand for skills; be responsive to employer and sectoral needs; provide work experience placements for the many graduates of the further education colleges and technikons; and provide opportunities for those disadvantaged by current labour market structures. Employers and training providers can propose learnership programmes to their Sector Education and Training Authority (SETA), the body which funds the programme on behalf of the Department of Labour (DoL). Hence, learnerships are expected to reflect and arise out of the skills and training needs of their sectors.

The learnership programme is an ambitious and concerted attempt to address a number of long-standing problems. In this, it resembles the modern apprenticeship programme launched in the UK in 1994 for 16 to 25 year olds, but now to be extended to include adults up to the age of 30 (see Fuller & Unwin 2003). Such programmes represent the VET policy-maker's ultimate dream scheme: to simultaneously solve the complex problems of social exclusion, skills growth and economic prosperity. Given South Africa's 'highly segmented and inequitous labour market' (see Kraak, Chapter Twelve), the learnership programme will depend heavily on the ability of the SETAs to stimulate demand in their sectors. Even where there is demand, learnerships will face the further challenge of asking employers to commit to the idea of a programme which has broader ambitions for the learner than providing them with the specific competences for their immediate job.

As McGrath explained in Chapter Seven, policies such as the learnership have to be careful when trying to balance demand and supply-side goals. In South Africa, for example, SMMEs might want a different type of learnership to larger organisations and may resent being dictated to by a supposedly 'responsive' programme.

In the UK, where unemployment is very low, but many employers still operate within a low-skills equilibrium, the modern apprenticeship programme is encountering difficulties. Significant numbers of apprentices are failing to complete the mandatory qualifications laid down in their apprenticeship framework and withdraw from the programme. Interestingly, research has shown that many of the same apprentices remain with their employer. The implications here are that some employers regard the apprenticeship as an extended job interview. Once they are satisfied that the apprentice has the appropriate attitude and is capable of becoming a productive worker, then the employer sees little point in the apprentice continuing on a programme with broader objectives, including attainment of nationally recognised qualifications. Some policy-makers and others in the UK argue that so long as the modern apprenticeship is acting as a productive dating agency by bringing job-seekers together with employers, then the programme is fulfilling its main purpose. Given the very high unemployment rate in South Africa, and particularly in relation to young people, it would be very understandable if the South African government and its agencies took a similar view.

The challenge for South Africa, as much as for the UK, is to hold on to the skills-related goals of these programmes and not to let the social inclusion agenda dominate their development. If learnerships only serve to lock people into low-status jobs without ensuring attainment of the qualifications that will assist them to progress in the labour market, then neither the economic nor the social inclusion goals of the programme will have been met. The government and the SETAs need to use the learnership initiative as part of a package of measures that support employers to improve their performance and have the ambition to strive for higher quality product markets.

Whichever route South Africa chooses on the high–low skills continuum, her policy-makers and educationalists need to consider how to engage all sections of the community in continued debate. The extreme nature of South Africa's domestic problems demand that such a debate take place and, as such, South Africa could show the way for more economically advanced countries where the debate has been all but snuffed out. The South African case also demands attention from those academics and social critics who dismiss the need to engage with the new economic realities and cry that the enlightenment has been highjacked by certain governments working in tandem with the global corporations. Strain and Field (1998: 240) argue:

... democratic conditions still make possible a formative discourse from which much stands to be gained ... There is 'out there' a real society in which knowledge and other resources are unequally distributed, to a degree that is not only inimical to the fulfilment of individual capabilities and freedoms but, arguably, detrimental to the collective survival and development of human society.

The strength of South Africa's concerns for equality and citizenship should encourage her policy-makers to strive for strategies which combine the development of an educated and critical labour force with progressive economic policies.

Organisational and sectoral transformation

Finding ways to develop an economic and skills-based strategy, that will benefit society as a whole, brings policy-makers face to face with the complexity of the world of work. They are confronted with diverse sectors, organisations ranging from the business run by one person to multi-national corporations, and the clamour of conflicting interests. Policy-makers have to find ways to influence this maelstrom in the hope of steering enough participants in the direction they believe will be right for the nation or, increasingly, the region.

The wealth of research on advanced working practices shows that much of it is complex and localised, and not disposed to the tidy, 'one size fits all' frameworks beloved of policy-makers. Where policy-makers can play a significant role, however, is in encouraging organisations to capitalise on and develop the knowledge and expertise which already exists in their workforces. Research into workplace learning has developed sufficiently in the past few years to offer practical help to organisations. This includes advice on, for example: the use of high performance working practices (see Ashton & Sung 2002); the role of the manager vis-à-vis the unlocking of tacit knowledge (see Eraut, Alderton, Cole & Senker 1998); the development of workplace pedagogies (see Billett 1999; Fuller & Unwin 2002); and the conceptualisation of organisations as activity systems (see Engestrom, Miettinen & Punamaki 1999). Many employers, in both the public and private sectors, have little understanding of how to change working practices in order to move their organisations forward, yet governments tend to concentrate their advice on the technical aspects of running a business.

Like the UK, the South African government has put great faith in industrial sectors as the units to act on its behalf to drive forward change. The 25 newly-established SETAs will have to speak for their sectors whilst, at the same time, attempting to transform them. Until recently, similar bodies in the UK tended to concentrate on supply-aide measures to address employer demands for more work-ready recruits, but a watershed was reached in 2001 with a report from the Cabinet Office. This finally acknowledged that the supply of skills alone would no longer suffice (see PIU 2001). This report drew on a considerable body of research (referred to elsewhere in this volume), stretching back nearly 20 years, showing that too many UK employers were stuck in a low skills equilibrium. Central to the research was a view that product market and competitive strategies are the key determinants of the levels of skills required by employers (see Coleman & Keep 2001; Keep and Mayhew 1999).

The only way to move out of a low skills equilibrium, therefore, is to shift product market strategies upwards. This, necessarily, presents the SETAs in South Africa and similar agencies in other countries with a difficult problem, particularly if their sectoral members would prefer the SETAs to act in a more conservative manner. Yet if the SETAs refrain from challenging their members' product market strategies, they will fail to deliver the targets laid down for them by government. Just as governments face two ways, so too must their agencies.

Capacity in the policy-making arena

Both McGrath (Chapters Seven and Nine) and Kraak (Chapter Ten) in this book highlight the continued reluctance of government departments in South Africa to 'join-up' their policies. In particular, they point to discontinuities between the Departments of Education (DoE), Labour, and Trade and Industry (DTI), the key engines behind the drive to affect closer alignment between skills' development, organisational improvement, and economic prosperity.

Ranson and Stewart (1998: 258) argue that 'The predicaments of our time are public (collective) problems and require public solutions, yet the public institutions required to support the resolutions have all but eroded; our society

has developed institutions that are not constituted for an active public domain'. In the UK, whilst actual VET policies receive close attention from researchers, little attention has been paid to the policy-making process or to the education and training of the policy-makers themselves. The very changes which policymakers expect to take place in other organisations (for example, greater employee engagement and consultation; multi-skilling and boundary crossing; wider distribution of skills; flatter structures, and so on) do not align at all well with civil service practices. Yet, the public sector, including government itself, could be made to act as an exemplar for workplace change.

Part of the problem for VET policy-making is attempting to influence a complex world, much of which sees government intervention as an anathema. Often, too, policy-making is just too naïve, as Malen and Knapp (1997: 419) explain:

The stark and stubborn disparities between a policy's stated aims and actual effects seem to defy explanation in part because the social conditions to be attended are tangled webs of problems with symptoms, sources and 'solutions' that are neither readily apparent nor reliably addressed by policy provisions.

Given the challenges which South Africa faces, her policy-makers work under intense pressure and much is expected of them. Different countries conceptualise the practice of policy-making and the role of the policy-maker in different ways. In Finland, for example, civil servants are experts in their fields, whereas, in the UK, they are seen as generalists who can be moved within and across government departments and agencies. The policy-making process itself might reflect traditions of social partnership (as in Germany and the Nordic countries) or be state-led (as in the case of Singapore). The legacies of colonialism and apartheid have created a particular capacity problem in the policy-making community in South Africa which, again, reminds us that neat typologies are inadequate for the purpose of understanding how this nation functions. South Africa is in the process of fashioning an approach to policymaking that reflects its new inclusive character. Alongside the drive for inclusivity, there will need to be staff development programmes to ensure the new generation of policy-makers (at national, regional and local levels) has the necessary capability and expertise to deliver an ambitious programme of reform.

As South Africa develops its range of VET agencies and places more importance on VET policy-making, there will be a need to examine the synergies between these agencies, both horizontally (in terms of those at the same level) and vertically (to see how each level articulates with that above and below). The social justice agenda necessitates the need to include other agencies, such as voluntary organisations, Adult Basic Education and Training (ABET) centres and community groups, in this map.

Concluding remarks

The South African context throws into stark relief a number of problems which many countries, including my own, are struggling to solve. To make progress, the policy-making and research communities across the world need to develop a more productive relationship in which both parties learn more about each other's aspirations, constraints, and concerns. That is not, of course, to advocate an uncritical accommodation between research and policy, but to urge both sides to listen to and learn from each other. Young (2001c: 9), writing about educational reform in South Africa from 1990–2000 from an international perspective, reminds us that we need to protect an 'intellectual space' for research in order 'to go beyond the immediate and the pragmatic'. This is particularly important at a time when, in the UK, educational researchers are being required to seek legitimacy from 'users' (for example, employers, policy-makers, teachers and so on) before they can access funding from government-sponsored research councils. On the other hand, too much research in the social sciences plays no part in policy debates because it is impenetrable and/or because it deliberately ignores the practical realities of the policy-making process.

The central concern of this volume has been to show that economic and social change has to be grounded in a detailed understanding of a society's history, culture, and relationship to its neighbours. The major challenge for South Africa is to emerge from the debilitating structures, beliefs and scars of the past in such a way as to improve social justice through an expansion of economic prosperity. Many other countries, some much more economically advanced than South Africa, could and should learn a great deal from this struggle. In the UK, concern is growing that the government's model for economic growth is leaving too many people stranded in jobs which demand

little more than obedience, whilst, at the same time, turning young people into uncritical and disempowered consumers of fast food and designer labels. Vandana Shiva (2001: 129) warns that, 'With no ethical, ecological, or social limits to commerce, life itself is being pushed to the edge'.

References

- Abedian I & Standish B (1992) The South African economy: A historical overview, in Abedian I & Standish B (eds) *Economic Growth in South Africa: Selected Policy Issues*. Cape Town: Oxford University Press.
- Afenyadu D (1998) *Changes in practice and students' aspirations in the era of globalisation*, Centre of African Studies, Papers in Education, Training and Enterprise, No 16, University of Edinburgh.
- Akoojee S (2003) Private FET, in *Human Resources Development Review 2003*. Cape Town: HSRC Press.
- Altman M & Meyer M (2003) Overview of industrial policy, in *Human Resources Development Review 2003*. Cape Town: HSRC Press.
- Ashton D; Maguire M & Spilsbury M (1987) Labour market segmentation and the structure of the youth labour market, in Brown P & Ashton D (eds) *Education, Unemployment and Labour Markets*. London: Falmer.
- Ashton D N, (1999) The skill formation process: A paradigm shift?, *Journal of Education* and Work 12: 3: 347–350.
- Ashton, D N & Green, F (1996) *Education, Training and the Global Economy.* Cheltenham: Edward Elgar.
- Ashton D N & Sung J (2000) *Adapting the market for skill formation*, Pretoria, South African Trade and Industry Secretariat, Working Paper: 12.
- Ashton D N & Sung J (2002) *Supporting Workplace Learning for High Performance Working*. Geneva: International Labour Office.
- Ashton D N, Green F J, James D & Sung J (1999) Education and Training for Development in East Asia: The Political Economy of Skill Formation in Newly Industrialised Economies. London: Routledge.
- Asmal K (2002) Foreword, in *Quantitative Overview of the Further Education and Training College Sector: The New Landscape.* Pretoria: Department of Education.
- Badroodien A (2001) A History of the Ottery School of Industries in Cape Town: Issues of Race, Welfare and Social Order in the Period 1937 to 1968. Unpublished PhD thesis, University of the Western Cape.

- Badroodien A (2003) Local labour environments and further education and training (FET) colleges: Three case studies, in Cosser, *et al.* (eds) *Technical College Responsiveness.* Cape Town: HSRC Publishers.
- Beinart W (1994) Twentieth-Century South Africa. Oxford: Oxford University Press.
- Berger I (1992) Threads of Solidarity. London: James Currey.
- Bernstein B (2000) *Pedagogy, Symbolic Control and Identity,* revised edition. Lanham: Rowman and Littlefield.
- Bhorat H (2001) Labour Market Challenges in Post Apartheid South Africa: A Country Profile, Development Policy Research Unit, University of Cape Town.
- Billett S (1999) Guided learning at work, in Boud, D & Garrick, J (eds) *Understanding Learning at Work*. London: Routledge.
- Bird A (1991) Negotiation for change: the Cosatu view of changes needed in the provision of adult education and training in South Africa. Paper presented at state conference on Manpower Development for the New South Africa, Pretoria, October.
- Bird A (2002) *Skills and jobs for young people*, presentation to the HSRC conference on technical college responsiveness, Johannesburg, October.
- Boreham N (2002) Work process knowledge in technological and organizational development, in Boreham N, Samurcay R & Fischer M (eds) Work Process Knowledge. London: Routledge.
- Boreham N, Samurcay R & Fischer M (eds) (2002) *Work Process Knowledge*. London: Routledge.
- Bot AK (1936) *Education in the Union of South Africa: Empire Exhibition, Johannesburg* 1936. Pretoria: Government Printer.
- Brown A & Keep E (1999) *Review of Vocational Education and Training Research in the United Kingdom.* Brussels: European Commission.
- Brown P (1999) Globalisation and the political economy of high skills, *Journal of Education and Work* 12:3 233–251.
- Brown P & Lauder H (1996) Education, globalisation and economic development, *Journal of Education Policy* 11:1: 1–25.
- Brown P, Green A & Lauder H (eds) (2001) *High Skills: Globalisation, Competitiveness, and Skill Formation.* Oxford: Oxford University Press.
- Butler E (2000) Knowledge 'now', learning futures: The politics and knowledge practices of vocational education and training, *International Journal of Lifelong Education*, 19:4 322–341.
- Callinicos L (1994) New factories, new workers, in Webster E, Alfred L, Bethlehem L, Joffe A & Selikow T A (eds) *Work and Industrialisation in South Africa: An Introductory Reader.* Johannesburg: Ravan.

Cape Colony (1905) *Report of South African Native Affairs Commission 1903 to 1905.* Cape Town: Government Printer.

Castells M (2000) The Rise of the Network Society. Oxford: Blackwell.

- Castells M (2001) The new global economy, in Muller J, Cloete N and Badat S (eds) *Challenges of Globalisation: South African Debates with Manuel Castells.* Cape Town: Maskew Miller Longman.
- Chandra V, Moorty L, Rajaratnam B & Schaefer K (2000a) *Constraints to Growth and Unemployment in South Africa. Report No. 1: Statistics from the Large Manufacturing Firm Survey.* Johannesburg: World Bank and Greater Johannesburg Metropolitan Council.
- Chandra V, Moorty L, Rajaratnam B & Schaefer K (2000b) Constraints to Growth and Unemployment in South Africa. Report No. 2: Evidence from the Small, Medium and Micro Enterprise Firm Survey. Johannesburg: World Bank and Greater Johannesburg Metropolitan Council.
- Chang H J (1994) The Political Economy of Industrial Policy. London: MacMillan.
- Chisholm L (1989) *Reformatories and Industrial Schools in South Africa: A Study in Class, Colour and Gender, 1882–1939.* Unpublished PhD thesis, Johannesburg: University of the Witwatersrand.
- Chisholm L (1992) *South African Technical Colleges: Policy Options.* Johannesburg: University of the Witwatersand, Education Policy Unit.
- Coleman S & Keep E (2001) *Background literature review for PIU project on workforce development.* http://www.cabinet-office.gov.uk/innovation/2001/ workforce> Accessed on 23 June 2003.
- Cooke P (2002) Knowledge Economies. London: Routledge.
- Cosatu (1991) Comments on the 'NTB/HSRC investigation into a national training strategy for the RSA'. Johannesburg: Cosatu.
- Cosser M (2003) Graduate training survey, in Cosser, *et al.* (eds) *Technical College Responsiveness.* Cape Town: HSRC Publishers.
- Cosser M, McGrath S, Badroodien A & Maja B (eds) (2003) *Technical College Responsiveness.* Cape Town: HSRC Publishers.
- Coy M W (ed) (1989) Apprenticeship: *From Theory to Method and Back Again*. Albany: State University of New York Press.
- Crouch C & Streeck W (eds) (1997) *The Political Economy of Modern Capitalism: Mapping Convergence and Diversity.* London: Sage.
- Crouch C, Finegold D & Sako M (1999) Are Skills the Answer? The Political Economy of Skill Creation in Advanced Industrial Societies. Oxford: Oxford University Press.
- Department of Education (1997) *Report of the National Committee on Further Education*. Pretoria: Department of Education.

SHIFTING UNDERSTANDINGS OF SKILLS IN SOUTH AFRICA

- Department of Education (1998) *Green Paper on Further Education*. Pretoria: Department of Education.
- Department of Education (1999) National Strategy for Further Education and Training, 1999–2001. Pretoria: Department of Education.
- Department of Education (2001) A New Institutional Landscape for Public Further Education and Training Colleges. Pretoria: Department of Education.
- Department of Education (2002) Tirisano *Strategic Plan for the Department of Education*, 2002–2004. Pretoria: Department of Education.
- Department of Education and Department of Labour (2001) *Human Resource* Development Strategy for South Africa – A Nation at Work for a Better Life for All. Pretoria: Government Printer.
- Department of Labour (1996) *Green Paper on a New Integrated Human Resources Development Strategy for South Africa*, draft version, August. Pretoria: Department of Labour.
- Department of Labour (1997) *Green Paper on a Skills Development Strategy for Economic and Employment Growth in South Africa.* Pretoria: Department of Labour.
- Department of Labour (1999a) *Skills Development Strategy Demarcation of SETAs: Research Report.* Pretoria: Department of Labour.
- Department of Labour (1999b) A Framework for Establishing Learnerships and the Quality Assurance Functions of SETAs. Pretoria: Department of Labour.
- Department of Labour (2000a) *Sector Skills Plan Guide*. Pretoria: Skills Development Planning Unit, Department of Labour.
- Department of Labour (2000b) *Towards a National Skills Development Strategy: Skills for Productive Citizenship For All*, draft consultation document, October. Pretoria: Department of Labour.
- Department of Labour (2000c) National Skills Development Strategy: The Context, draft document, November. Pretoria: Department of Labour.
- Department of Labour (2001a) *The National Skills Development Strategy*. Pretoria: Department of Labour.
- Department of Labour (2001b) *Vhutsila*, a series of media brochures on the National Skills Development Strategy (NSDS), February. Pretoria: Department of Labour.
- Department of Labour (2001c) *SETA SSP training and development needs survey findings*, unpublished document, June. Pretoria: Skills Development Planning Unit, Department of Labour.
- Department of Labour (2001d) *National Skills Fund Annual Report*, 2000/2001. Pretoria: Government Printer.

- Department of Labour (2001e) *Sector skills plans evaluation: consolidated report: An executive summary*, unpublished document, June. Pretoria: Skills Development Planning Unit, Department of Labour.
- Department of Labour (2002a) National Skills Development Strategy: Synthesis Report 1 July–September 2002. Pretoria: Department of Labour.
- Department of Labour (2002b) *Preliminary Annual Report, 2001/2002*. Pretoria: Government Printer.
- Department of Labour (2002c) National Skills Fund Strategic Projects: A Summary of the NSF Strategic Projects Currently in Implementation, 2002–2005. Pretoria: Department of Labour.
- Department of Labour (2002d) *The National Skills Development Strategy: Implementation Report*, April 2001 to March 2002. Pretoria: Department of Labour.
- Department of Labour (2002e) National Skills Development Strategy: Synthesis Report April–June 2002: Pretoria: Department of Labour.
- Department of National Education (1984) *Report of an Intersectoral Committee of Investigation into the Composition and Functions of a National Certifying Council.* Pretoria: Department of National Education.
- Department of National Education (1991) *Education Renewal Strategy: Discussion Document.* Pretoria: Unisa Press.
- Department of Public Education (1929) *The Native Primary School: Suggestions for the Consideration of Teachers.* Cape Town: Cape Times.
- Department of Trade and Industry (2002) *Accelerating Growth and Development: The Contribution of an Integrated Manufacturing Strategy.* Pretoria: Department of Trade and Industry.
- Devey R, Skinner C & Valodia I (2003) The informal economy in South Africa, in *Human Resources Development Review 2003*. Cape Town: HSRC Press.
- Dore R (2000) Stock Market Capitalism: Welfare Capitalism Japan and Germany versus the Anglo-Saxons. Oxford: Oxford University Press.
- Dubow S (1989) Racial Segregation and the Origins of Apartheid in South Africa, 1919–36. New York: St Martin's Press.
- Duncan D (1995) *The Mills of God: The State and African Labour in South Africa* 1918–1948. Johannesburg: Witwatersrand University Press.
- Edwards R (1979) Contested Terrain: *The Transformation of the Workplace in the Twentieth Century*. New York: Basic Books.
- Edwards R, Reich M & Gordon D (eds) (1973) *Labour Market Segmentation*. Lexington: D C Heath & Co.
- Engestrom Y (1994) *Training for Change: New Approach to Instruction and Learning in Working Life.* Geneva: International Labour Office.

- Engestrom Y (2004) The new generation of expertise: Seven theses, in Rainbird H, Fuller A & Munro A (eds) *Workplace Learning in Context.* London: Routledge (Forthcoming).
- Engestrom Y, Miettinen R & Punamaki R 1999 (eds) *Perspectives on Activity Theory*. Cambridge: Cambridge University Press.
- Eraut M, Alderton J, Cole G & Senker P (1998) Learning from other people at work, in Coffield F (ed) *Learning at Work*. Bristol: The Policy Press.
- Fick M L (1936) The Intelligence of Dependent Children. Pretoria: Van Schaik.
- Field J (2000) *Lifelong Learning and the New Educational Order*. Stoke-on-Trent: Trentham Books.
- Fields B (2002) *The Accidental Tiger: An Exploration of the Irish Economic Disposition During the Belated Golden Age of Development*, unpublished PhD thesis. University of Leicester.
- Fine B & Rustomjee Z (1996) *The Political Economy of South Africa*. Johannesburg: Witwatersrand University Press.
- Finegold D & Soskice D (1988) The failure of British training: Analysis and prescription, *Oxford Review of Economic Policy*, 4:3 21–53.
- Foster P J (1965) The vocational school fallacy in development planning, in Anderson C A & Bowman M J (eds) *Education and Economic Development*. Chicago: Aldine.
- Fuller A & Unwin L (2002) Developing pedagogies for the contemporary workplace, in Evans K, Hodkinson P & Unwin L (eds) Working to Learn: Transforming Learning at Work. London: Kogan Page.
- Fuller A & Unwin L (2003) Creating a 'Modern' Apprenticeship: a critique of the UK's multi-sector, social inclusion approach, *Journal of Education and Work*, 16:1 5–25.
- Gaetz S & O'Grady B (2002) Making money: exploring the economy of young homeless workers, *Work Employment and Society*, 16:3 433–456.
- Gallie D (1988) Employment in Britain. Oxford: Blackwell
- Gamble J (2001) Modelling the invisible: The pedagogy of craft apprenticeship, *Studies in Continuing Education*, 23:2 181–196.
- Gamble J (2002) Teaching without words: Tacit knowledge in apprenticeship, *Journal of Education*, 28, 63–82.
- Gamble J (2003a) Monitoring and Evaluation of DANIDA Support to Education and Skills Development (SESD) Programme. Baseline Study. Pretoria: HSRC.
- Gamble J (2003b) Curriculum Responsiveness in FET Colleges. Cape Town: HSRC Press.
- Gay H (2000) Association and practice: The City and Guilds of London Institute for the Advancement of Technical Education, *Annals of Science*, 57: 369–398.

- Gelb S (1991) South Africa's economic crisis: An overview, in Gelb, S (ed) *South Africa's Economic Crisis.* Cape Town: David Philip.
- Germond P (1968) Note on the development of the farm and agricultural courses at Fort Hare, in Kerr A (ed) *Fort Hare 1915–1948: The Establishment of an African College.* Pietermaritzburg: Shuter and Shooter.
- Gibson, A (1997) *Business Development Services for SMEs.* Washington: Donor Committee for Small Enterprise Development.
- Goleman, D (1996) Working with Emotional Intelligence. London: Bloomsbury.
- Gordon D, Edwards R & Reich M (1982) *Segmented Work: Divided Workers*. New York: Cambridge University Press.
- Gordon D, Weiskopf T & Bowles, S (1983) Long swings and the non-reproductive cycle, *American Economic Review*, 73: 2 152–157.
- Green A (1995) Technical education and state formation in nineteenth century England and France, *History of Education* 24:2 123–139.
- Green A & Sakamoto A (2001) Models of high skills in national competition strategies, in Brown P, Green A, & Lauder H (eds) *High Skills: Globalisation, Competitiveness, and Skill Formation.* Oxford: Oxford University Press.
- Greig F W (1997) Enterprise training, International Journal of Manpower, 18:1-2 185-205
- Grierson J & McKenzie I (eds) (1996) Training for Self-employment through Vocational Training Institutions. Turin: International Labour Office.
- Grubb W N & Ryan P (1999) *The Roles of Evaluation for Vocational Education and Training*. London: Kogan Page.
- Hall S & Jacques M (eds) (1989) New Times. London: Lawrence and Wishart.
- Han F W, Fernandez W & Tan S (1998) *Lee Kuan Yew: The Man and His Ideas.* Singapore: Singapore Press Holdings.
- Hartshorne K (1989) *Education in the homelands: In a cul-de-sac or at the crossroads?* Johannesburg; Etheridge Commemoration Lecture, University of Witwatersrand Centre for Continuing Education.
- Hirschman A (1958) *The Strategy of Economic Development*. New Haven: Yale University Press.
- Hirst P & Zeitlin J (1991) Flexible specialisation versus post-fordism: Theory, evidence and policy implications, *Economy and Society*, 20:1 1–56.
- Hobart Houghton D (1956) *The Tomlinson Report: A Summary of the Findings and Recommendations in the Tomlinson Commission Report.* Johannesburg: South African Institute of Race Relations.
- Hodson D (1992) Assessment of practical work: Some considerations in philosophy of science, *Science and Education*, 1: 115–144.

SHIFTING UNDERSTANDINGS OF SKILLS IN SOUTH AFRICA

- Human Sciences Research Council (1981) *Provision of Education in the Republic of South Africa: Report of the Main Committee of the HSRC Investigation into Education* (The De Lange Report). Pretoria: HSRC.
- Hunt Davis R (1969) *Nineteenth Century African Education in the Cape Colony: A Historical Analysis*, Unpublished PhD thesis. University of Wisconsin.
- Hunt Davis R (1984) Charles T Loram and the American model for African education in South Africa, in Kallaway P (ed) *Apartheid and Education*. Johannesburg: Ravan.
- Hurwitz N (1964) *The Economics of Bantu Education in South Africa*. Johannesburg: South African Institute of Race Relations.
- Huss B (1928) Agricultural conditions and progress among the South African natives, in Dexter-Taylor J (ed) *Christianity and the Natives of South Africa: A Yearbook of South African Missions*. Alice: Lovedale Institution Press.

International Labour Office (2001) World Employment Report 2001. Geneva: ILO.

- James W (1992) Our Precious Metal. London: James Currey.
- Johanson R (2002) Vocational Skills Development in Sub-Saharan Africa: Synthesis of Phase I of a Regional Review, draft report, African Region. Washington: World Bank.
- Johanson R & Adams A (2003) *Skills development in Sub-Saharan Africa*. Draft report for the World Bank, February.
- Kallaway P (1987) Colonial education in Natal: The Zwaartkops Government Industrial Native School 1888 to 1892, *Perspectives in Education*, 10:2 17–33.
- Kallaway P (1992) From Bantu education to people's education in South Africa, in Entwistle N (ed) *Handbook of Educational Ideas and Practices*. London: Routledge.
- Kallaway P (1996) Policy challenges for education in the 'new' South Africa, *Transformation*, 31 1–24.
- Kaplinsky R (1995) The new competition and human resources: How disadvantaged are low income LDCs? Paper presented at the Oxford International Conference on Education and Development, September.
- Keep E (1999) UK's VET policy and the 'Third Way': Following a high skills trajectory or running up a dead end street? *Journal of Education and Work*, 12:3 323–46.
- Keep E & Mayhew K (1999) The assessment: Knowledge, skills and competitiveness, Oxford Review of Economic Policy, 15: 1 1–15.

King K (1996) Jua Kali Kenya. Oxford: James Currey.

- King K (1997) Policy coherence in education, training and enterprise development in South Africa: The implementation challenge of new policies, Papers in Education, Training and Enterprise, No. 4. Edinburgh: University of Edinburgh, Centre of African Studies.
- King K & Carton M (1999) Transforming the labour skill arena in South Africa: The international dimension. Unpublished paper, Centre of African Studies, University of

Edinburgh and Graduate Institute for Development Studies (IUED), University of Geneva.

King K & McGrath, S (2002) Globalisation, Enterprise and Knowledge. Oxford: Symposium.

King K & McGrath S (2003) Knowledge for Development. London: Zed.

Klein N (2000) No Logo: Taking Aim at the Brand Bullies. Toronto: Vintage Canada.

- Kraak A, Paterson A, Visser M & Tustin D (2000) Baseline Survey of Industrial Training in South Africa, Report commissioned by Labour Market Skills Development Programme. Pretoria: HSRC.
- Kraak A (1994) *Free or Co-ordinated Markets*? Unpublished DPhil thesis. University of the Western Cape.
- Kraak A & Hall G (1999) *Transforming further education and training in South Africa*. Pretoria: HSRC.

Kruse W (1986) On the necessity of labour process knowledge, in Schweitzer J (ed) *Training for a Human Future.* Basle: Weinheim.

- Lave J & Wenger E (1991) Situated Learning. Cambridge: Cambridge University Press.
- Layton D (1984) The Secondary School Science Curriculum and the Alternative Road, in Layton D (ed) *The Alternative Road: The rehabilitation of the Practical.* Leeds: Centre for Studies in Science and Mathematics Education, University of Leeds.
- Layton D (1993) Science education and praxis: The relationship of school science to practical action, in Jenkins E W (ed) School Science and Technology. Leeds: Centre for Studies in Science and Mathematics Education, University of Leeds.

Leboho A M (1957) Gardening in our schools, Bantu, May, 41-42.

- Lewis J (2001) *Reform and opportunity: The changing role and patterns of trade in South Africa and SADC*, Africa Region Working Paper Number 14. Washington: World Bank.
- Loram C (1917) The Education of the South African Native. London: Longmans Green.
- Lowden T (1907) The place of manual training in South African education, in *Report of the South African Association for the Advancement of Science, Third Meeting Johannesburg 1905, and Fourth Meeting Kimberley 1906.* Cape Town: South African Association for the Advancement of Science.
- Lucas N (2000) Hopes, contradictions and challenges: Lifelong learning and the further education sector, in Hodgson A (ed) *Policies, Politics and the Future of Lifelong Learning.* London: Kogan Page.
- Lucie-Smith E (1981) The Story of Craft: The Craftsman's Role in Society. Oxford: Phaidon.
- Macun I (2001) Developing skill and employment in South Africa: Policy formulation for labour market adjustment, in Kraak A & Young M (eds) *Education in Retrospect: Policy and Implementation since 1990.* Pretoria: HSRC Publishers.

- Maja B & McGrath S (2003) Technical college employer satisfaction, in Cosser M *et al.* (eds) *Technical College Responsiveness.* Cape Town: HSRC Publishers.
- Malen B & Knapp M (1997) Rethinking the multiple perspectives approach to education policy analysis: Implications for policy practice connections, *Journal of Education Policy*, 12:5 419–45.
- Malherbe E (1932) *Education and the Poor White.* Carnegie Commission Report Volume 3. Stellenbosch: Pro Ecclesia Drukkery.

Malherbe E (1977) Education in South Africa. Volume Two: 1923-75. Cape Town: Juta.

Mamabolo M E (1997) *The teaching of agriculture at Secondary Schools and its implication for development in the Northern Province*, Research Paper No. 4. Land Management and Rural Development Programme, University of the North.

Manu G (1999) Enterprise development in Africa: Strategies for impact and growth, in King K & McGrath S (eds) *Enterprise in Africa*. London: Intermediate Technology Publications.

Marks S (1994) Divided Sisterhood. Johannesburg: Witswatersrand University Press.

Martins J & Van Wyk H (2002) *Skills development practices at and needs of micro-, very small and small businesses in selected sectors of the economy.* Unpublished commissioned report for Ntsika Enterprise Promotion Agency, Bureau for Market Research, University of South Africa.

Mathews J (1989) Tools of Change. Sydney: Pluto.

- Maurice M, Sellier F & Silvestre J-J (1986) *The Social Foundations of Industrial Power*. London: MIT Press.
- McCord A (2003) Overview of the South African economy, in *Human Resources* Development Review 2003. Cape Town: HSRC Press.
- McCord A & Bhorat H (2003) Employment and labour market trends in South Africa, in *Human Resources Development Review 2003*. Cape Town: HSRC Press.
- McEvoy P (2000) Baseline Study Synthesis Report. Pretoria: Department of Labour.
- McGrath S (1996) *Learning to Work: Changing Discourses on South African Education and Training, 1976–96.* Unpublished PhD thesis. University of Edinburgh.
- McGrath S (1998) National policies and institutional practices: The credibility gap in South African education and training reform, *Journal of Vocational Education and Training*, 50:4 503–19.
- McGrath S (2000) Coming in from the cold? Further education and training in South Africa, *Compare*, 30:1 65–84.
- McGrath S (2002) Skills for development: A new approach to international cooperation in skills development? *Journal of Vocational Education and Training*, 54:3 413–30.

- McGrath S (2003a) Researching responsiveness, in Cosser M *et al.*, (eds) *Technical College Responsiveness*. HSRC Publishers: Cape Town.
- McGrath S (2003b) Building college responsiveness in South Africa, in Cosser M *et al.*, (eds) *Technical College Responsiveness*. Cape Town: HSRC Publishers.

McGrath S & King K with Leach F & Carr-Hill R (1995) *Education and Training for the Informal Sector*. London: Overseas Development Administration, Education Papers, No. 11.

- McKerron M E (1934) A History of Education in South Africa. Pretoria: J L Van Schaik.
- Mdladlana M (2003) *Growth and Development Summit Briefing*. Pretoria: Department of Labour Press Release, June 6.
- Morrell R ed (1991) White but Poor: Essays on the History of Poor Whites in Southern Africa 1880–1940. Pretoria: UNISA Press.
- Morris M & Paddayachee V (1989) Hegemonic projects accumulation strategies and state reform policy in South Africa, *Labour, Capital and Society*, 22: 66–107.
- Muller C (2002) *Measuring South Africa's informal sector: an analysis of National Household Surveys*, paper presented at the DPRU/FES Conference on Labour Markets and Poverty, Johannesburg, October.
- Muller J (2001) Progressivism redux: ethos, policy and pathos, in Kraak A & Young M (eds) *Education in Retrospect*. Pretoria: HSRC Publishers.
- National Training Board (1986) Guidelines for the Establishment, Management, Financing and Functioning of an Industry Training Board. Pretoria: Government Printer.
- National Training Board (1990) Annual Report. Pretoria: Government Printer.
- National Training Board (1995) *Funding of Training in South Africa: The Final Report.* Pretoria: Government Printer.
- National Training Board/Human Sciences Research Council (1984) *Investigation into the Training of Artisans in South Africa*. Pretoria: NTB/HSRC.
- National Training Board/Human Sciences Research Council (1989) *Investigation into Skills Training in the Republic of South Africa.* Pretoria: NTB/HSRC.
- National Training Board/Human Sciences Research Council (1991) An Investigation into a National Training Strategy. Pretoria: NTB/HSRC.
- Nickson D, Warhurst C, Witz A & Cullen A M (1993) *Aesthetic labour in the service economy: an overlooked development.* Paper presented to the 3rd International Labour Market Conference, Aberdeen, June.
- Nielsen K & Kvale S (1997) Current issues in apprenticeship, *Nordisk Pedagogik* 17:3 130–139.
- Nishimura M & Orodho J (1999) *Education, vocational training and employment*. Nairobi, Japan: International Cooperation Agency.

- Njobe B (2001) Speech delivered by the Director General of the National Department of Agriculture, Ms Bongiwe Njobe at the Association of Principals of Agricultural Colleges (APAC) Conference on 16 to 17 October 2001. http://www.mantc.ac.za/agric/APAC 2001 CONFERENCE PROCEEDINGS/D. PAPERS/De Mrs B Njobe/Mrs B Njobe.doc> Accessed on 23 February 2002
- Ntsika Enterprise Promotion Agency/Department of Trade and Industry (1999) *The State* of *Small Business in South Africa 1998.* Pretoria: Report commissioned by Department of Trade and Industry.
- Nutt P W (1957) Bantu Education policy: A plan to serve the community *Bantu*, December, 75–88.
- Oki K (2002) Attitudes of Secondary School Leavers in Malawi Toward Self-Employment. Unpublished MSc dissertation. University of Edinburgh.
- Organisation for Economic Cooperation and Development (1996) *Education and Training: Learning and Working in a Society in Flux.* Paris: OECD.
- Papp G (1937) The agricultural and industrial education of the Natives of the Union of South Africa, in Malherbe E G (ed) *Educational Adaptations in a Changing Society*. Cape Town: Juta.
- Paterson A (1992) Contest and Co-option: The struggle for schooling in the African Independent Churches of the Cape Colony, 1895–1920. Unpublished PhD thesis. University of Cape Town.
- Paterson A & Arends F (2002) The contribution of Agricultural Science to sustainable rural development: evidence from the South African Senior Certificate (SASCE) Examination. Paper presented to the Kenton Conference, Gauteng, October.
- Payne J (2000) The unbearable lightness of skill: the changing meaning of skill in UK policy discourses and some implications for education and training, *Journal of Education Policy*, 15:3: 353–369.
- P-E Corporate Services (2001) *Investment in Training*. Unpublished Discussion Paper, Johannesburg.
- Pells E G (1938) *European, Coloured and Native Education in South Africa, 1658–1938.* Cape Town: Juta.
- Piore M & Sabel C (1984) The Second Industrial Divide. New York: Basic Books.
- Performance and Innovation Unit (2001) *In Demand: Adult Skills in the 21st Century.* London: Cabinet Office.
- Powell L and Hall G (2002) *Quantitative Overview of the Further Education and Training College Sector: The New Landscape.* Pretoria: Department of Education.
- Probert B (1999) Gender workers and gendered work, in Boud D & Garrick J (eds) Understanding Learning at Work. London: Routledge.

- Provincial Administration of the Cape of Good Hope (1957) *The Report of the Coloured Education Commission of 1953–6: The Botha Commission.* Cape Town: Premier Printing Works.
- Pye D (1968) *The nature and art of workmanship.* Cambridge: Cambridge University Press.
- Pye D (1978) The Nature and Aesthetics of Design. London: Barrie and Jenkins.
- Rafel R (1987) Job reservation on the mines, in Moss G & Obery I (eds) *South African Review* 4. Johannesburg: Ravan.
- Raffe D (1992) *Modular Strategies for Overcoming Academic/Vocational Divisions*. Institute of Education Research, University of Jyvaskyla.
- Ranson S & Stewart J (1998) The learning democracy, in Ranson S (ed) *Inside the Learning Society.* London: Cassell Education.
- Republic of South Africa (1979) Report of the Commission of Inquiry into Legislation Affecting the Utilisation of Manpower (Excluding the Legislation Administered by the Departments of Labour and Mines), (Riekert Commission). Pretoria: Government Printer.
- Republic of South Africa (1983) *Report of the S J Kleu Study Group on Industrial Development Strategy.* Pretoria: Government Printer.
- Republic of South Africa (1995a) *White Paper on Education and Training*. Pretoria: Government Printer.
- Republic of South Africa (1995b) *White Paper on National Strategy for the Development and Promotion of Small Business in South Africa.* Pretoria: Government Printer.

Republic of South Africa (1998a) Education White Paper 4. Pretoria: Government Printer.

- Republic of South Africa (1998b) *Further Education and Training Act.* No. ?? of 1998. Pretoria: Government Printer.
- Republic of South Africa (1998c) *Skills Development Act*, No. 97 of 1998. Pretoria: Government Printer.
- Republic of South Africa (1999) *Skills Development Levies*, No. 9 of 1999. Pretoria: Government Printer.
- Republic of South Africa (2000) *Skills Development Act*, No. 97 of 1998: Regulations for the period 1 April 2000 to 31 March 2001 regarding funding and related issues. Pretoria: Government Printer.
- Republic of South Africa (2001) *Skills Development Act*, No. 97 of 1998: Skills Development Regulations, Government Gazette No 22398, Pretoria: Government Printer.
- Rickett D H (1971) *The Evolution of Full-Time Vocational Education in the Cape Province*. Unpublished PhD thesis, University of Cape Town.
- Rogers H R (1949) *Native Administration in the Union of South Africa*, (2nd edition revised by PA Linington). Pretoria: Government Printer.

- Rogerson C (1999) Small enterprise development in South Africa: Gearing up for growth and poverty alleviation, in King K & McGrath S (eds) *Enterprise in Africa*. London: Intermediate Technology Publications.
- Rubery J, Tarling R & Wilkinson F (1987) Flexibility, marketing and the organisation of production, *Labour and Society*, 12:1 131–152.
- Ryan P (1981) Segmentation, duality and the internal labour market, in Wilkinson F (ed) *The Dynamics of Labour Market Segmentation*. London: Academic Press.
- Sassen S (2002) A new geography of centres and margins: Summary and implications, in LeGates R & Stout F (eds) *The City Reader*, 2nd Edition. London: Routledge.
- Shiva V (2001) The world on the edge, in Hutton W & Giddens A (eds) *On The Edge.* London: Vintage.
- Singleton J (1989) Japanese folkcraft pottery apprenticeship: Cultural patterns of an educational institution, in Coy M (ed) *Apprenticeship: From Theory to Method and Back Again.* Albany: State University of New York Press.
- Statistics South Africa (2001) *Labour Force Survey 2001*, Statistical Release P0210. Pretoria: Statistics South Africa.
- Steinmann, Revd S (1906) Higher education and the Inter-State Native College for Natives, in *Report of the Second General Missionary Conference for South Africa*. Basutholand: Morija Printing Office.
- Stevenson J (2003) Vocational teaching and learning in context, in Stevenson J (ed) *Developing Vocational Expertise.* Crows Nest: Allen and Unwin.
- Strain M & Field J (1998) On the Myth of the Learning Society, Ranson S (ed) *Inside the Learning Society.* London: Cassell Education.
- Streeck W (1989) Skills and the limits of Neoliberalism: The enterprise of the future as a place of learning, *Work, Employment and Society,* 3:1 89–104.
- Streeck W (1992) Social Institutions and Economic Performance, Studies of Industrial Relations in Advanced Capitalist Economies. London: Sage.
- Subotzky G (2003) Public higher education and training, *Human Resources Development Review 2003*. Cape Town: HSRC Press.
- Sultana R G (1997) Between promise and possibility: but will it really work? in Watson K, Modgil C & Modgil S (eds) Educational Dilemmas: Debate and Diversity. London: Cassell Education.
- Swilling M & Russell B (2002) The Size and Shape of the Non-Profit Sector in South Africa. Graduate School of Public and Development Management, University of the Witwatersrand and The Centre for Civil Society, University of Natal.
- Terreblanche S & Nattrass N (1994) A periodisation of the political economy from 1910, in Webster E, Alfred L, Bethlehem L, Joffe A & Selikow T A (eds) Work and Industrialisation in South Africa: An Introductory Reader. Johannesburg: Raven.

- The Education Panel (1963) *Education for South Africa*. Johannesburg: Witwatersrand University Press.
- The Education Panel (1966) *Education and the South African Economy.* Johannesburg: Witwatersrand University Press.
- Thompson R W (1904) The need for industrial missions, in *Report of the Second General Missionary Conference for South Africa*. Johannesburg: Argus Printing Co.
- United Nations (2002) *Report on the World Summit on Sustainable Development.* Johannesburg: United Nations.
- Union of South Africa (1913) Annual Report of the Union Education Department for 1912 (UG 21-1913). Pretoria: Government Printer.
- Union of South Africa (1926) *Annual Report of the Union Education Department for 1925*. Pretoria: Government Printer.
- Union of South Africa (1929) Annual Report of the Union Education Department for 1928 (UG 51-1929). Pretoria: Government Printer.
- Union of South Africa (1939) Annual Report of the Union Education Department for 1938 (UG 59-1939). Pretoria: Government Printer.
- Union of South Africa (1943) Report of a Committee of Enquiry Appointed to Enquire into Conditions Existing on the Cape Flats and Similarly-affected Areas in the Cape Division in 1942 (UG 18-1943). Pretoria: Government Printer.
- Union of South Africa (1948a) Annual Report of the Union Education Department for the Calendar Years 1946–7 (UG 41-1948). Pretoria: Government Printer.
- Union of South Africa (1948b) Annual Report of the Union Education Department for the Years 1941–1945 (UG 39-1948). Pretoria: Government Printer.
- Union of South Africa (1949) *The Report of the Commission on Technical and Vocational Education of 1948: The De Villiers Commission.* Pretoria: Government Printer.
- Union of South Africa (1954) Annual Report of the Union Education Department for 1952 (UG 12-1954). Pretoria: Government Printer.
- Unterhalter E (1991) Changing aspects of reformism in Bantu Education, in Unterhalter E *et al.* (eds) *Apartheid Education and Popular Struggles.* Johannesburg: Ravan Press.
- Unwin L (2003) Being responsive colleges, communities and 'stakeholders', in Cosser M *et al.* (eds) *Technical College Responsiveness.* Cape Town: HSRC Publishers.
- Unwin L (2004) 21st Century vocational education in the UK: What would Dickens think?, *Pedagogy, Culture and Society*, 12.2 forthcoming.
- Venter K with Ashton D & Sung J (2002) Education and Skills in the People's Republic of China: Employers' Perceptions. Report commissioned by the International Labour Office, Centre for Labour Market Studies, University of Leicester.
- Wallace R (1896) Farming Industries of Cape Colony. London: P S King and Son.

Webster E & Adler G (1999) *Towards a class compromise in South Africa's 'double transition': Bargained liberalisation and the consolidation of democracy.* Unpublished paper, Sociology Department, Johannesburg: University of the Witwatersrand.

Wiehahn N (1982) The Complete Wiehahn Report. Johannesburg: Lex Patria.

- Wilkinson F (ed) (1981) *The Dynamics of Labour Market Segmentation*. London: Academic Press.
- Wilson M, Kaplan S, Maki T & Walton E M (1952) *Keiskammahoek Rural Survey III: Social Structure.* Pietermaritzburg: Shuter and Shooter.
- Wolf A (2002) Does Education Matter? London: Penguin.
- Working Group for International Cooperation in Technical and Vocational Skills Development (1997) Donor policies in skills development. Discussion Paper No. 2. Bern & Geneva: ILO, Norrag, & SDC.
- Young M (2001a) Human resource development strategies: Some conceptual issues and their implications, in Kraak A & Young M (eds) *Education in Retrospect: Policy and Implementation since 1990.* Pretoria: HSRC Publishers.
- Young M (2001b) *Conceptualising vocational knowledge.* Paper presented at the Joint SKOPE/TRL International Workshop, University College Northampton, November.
- Young M (2001c) Educational Reform in South Africa (1990–2000): An International Perspective, in Kraak A & Young M (eds) *Education in Retrospect*. Pretoria: HSRC Publishers.
- Young M (2002) Contrasting approaches to the role of qualifications in the promotion of lifelong learning, in Evans K, Hodkinson P & Unwin L (eds) Working to Learn. London: Kogan Page.

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