The Integration of Education and Training

in Further Education and Training:

Towards a Pedagogy of Mode-Switching

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By

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Chapter 1: Introduction

The integration of different types and areas of knowledge and skills is being explored for the first time in the official discourse on educational reconstruction in South Africa. The reasons for this are bound up with the country's general global conditions of capital accumulation and its particular political and social history. The conceptually and practically integrated curricula envisaged pose some challenges that will have to be addressed. On the one hand, the culture of democracy presently being introduced in the educational arena leads to notions of learner autonomy, self-realisation, recognition of diversity, and socio-economic redress and equity. On the other hand, the present conditions of capital accumulation accentuate the market discourse of efficiency, competitiveness and tangible outcomes.

The development and design of integrated curricula in further education and training (FET) cannot be abstracted from the global and national socio-economic and political contexts. The research question that this dissertation attempts to answer is whether, despite power relations and political rivalry, integrated curricula can still be pedagogically defensible.

1.1 METHODOLOGY

This dissertation was primarily constructed as a discursive account of proposals for curriculum integration in South Africa. The bulk of the information presented was obtained from official documentary sources, books and articles in newspapers and journals, with a view to compiling a theoretical map of the present terrain of curriculum development and design. The main analytical categories for data selection and evaluation are as follows:

a)   Philosophical underpinnings of different models
b)   Epistemological assumptions
c)   Approach to curriculum
d)   Organisation, distribution and assessment of curriculum knowledge

Chapter 2 looks at international models for curriculum integration. The chapter first provides a theoretical overview of post-Fordist models for curriculum integration. It then describes two international examples of curriculum integration, namely the Australian and German, and

critically analyses policy documents, conference papers, books and journal articles on further education and vocational training in these countries, with the emphasis on critiquing policy. The data on Germany is complemented by the views conveyed by the following three interviewees:

a)   Dr Wurf, principal of the Institute for Commercial Advancement Training Scheme (CATS) in Braamfontein, Johannesburg;

b)   Helga Kunz, a Religious Studies teacher who did her internship at a vocational training school in Ludwigsburg, Germany; and

c)   Marlies Kennerknecht, a graduate in Education Economics at the University of Munich.

In the German case study we are dealing with a long-established tradition of curriculum integration in vocational training. The Australian case study mainly entails a description and critique of curriculum proposals currently being implemented for the first time. A very limited evaluation of curriculum practice in those countries is included towards the end of the chapter.

Chapter 3 looks at South Africa's proposals for reconstruction in FET. The information was drawn mainly from documentary sources including government reports, bills before parliament, research reports, discussion documents, conference papers, and newspaper and journal articles.

Chapter 4 is a case study of a local skills training initiative. The data was collected through:

a)   a perusal of documentary sources including policy documents, syllabi, lesson plans, assessment schemes, and enrolment and placement statistics;

b)   personal observation; and

c)   interviews with staff members and learners at educational institutions.

Value Claims

This research will be located in the critical-normative paradigm. It will therefore not only describe the state of play, but will also pass judgement on curriculum development, design and practice in terms of the goals of democratisation, equity and social justice, and pedagogical defensibility.

The researcher makes no claims to value-free objective research, but this does not mean that

accuracy and validity are compromised. Measures were taken to ensure accuracy and validity, and inconsistencies in documentary sources were cross-checked using further documentary sources. The inconsistencies encountered are reported in the research findings. To minimise inaccurate reporting of data obtained by way of interviews, a tape-recorder was used in addition to note-taking.

Ethical Considerations

STEC received the researcher's assurance that any potentially damaging findings would be discussed with the organisation before being included in the dissertation. However, none of the findings are of such a nature that they may damage STEC's image or jeopardise its funding base.

Terminology

The term 'further education and training (FET)' refers to post-school education and training, which often involves vocational training. Sometimes these terms will be used interchangeably to indicate their convergence.

The term 'curriculum integration' refers to the integration of different types and areas of knowledge. These may be academic, vocational or socio-cultural.

1.2 JUSTIFICATION FOR THE PROJECT

The model for FET in South Africa is being proposed against the backdrop of international educational developments that are premised on the needs of post-Fordist economies. The changes proposed for FET in South Africa synthesise the particular social and political history of the country with the international developments towards multi-skilling for post-Fordist economic development. The South African proposals for curriculum development in FET vividly blend commitments to social equity with a market discourse.

This dissertation attempts to trace the philosophical, epistemological and pedagogical features underlying the discourse of multi-skilling. The curriculum implications of multi-skilling can perhaps best be illustrated in the proposed changes for FET. It is in this area that policy-makers

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have best articulated the twin objectives of social equity and economic competitiveness through a curriculum discourse. The research question posed by this discourse is whether curriculum integration in FET is feasible and pedagogically defensible. This central research question raises other questions. Firstly, what are the philosophical, epistemological and pedagogical bases for integrated curricula? Secondly, what are the political, social and economic factors that support integrated curricula? Thirdly, can a pedagogic model that draws on contradictory pedagogic modes be pedagogically defensible?

The central research question was prompted by criticisms that the new outcomes-based educational model as proposed by the National Qualifications Framework (NQF) will lead to a greater fragmentation of knowledge and disempowerment of workers (Samson & Vally, 1996). This criticism is highly relevant if one considers that the primary means by which curriculum integration is achieved is modularisation, defined as 'the segmentation of knowledge into smaller chunks' (Raffe, 1994: 143).

Another criticism is that the predetermination of pedagogic outcomes is fundamentally un-democratic and will undermine the culture of teaching and learning in South Africa. (Jansen, 1997). This is a very valid criticism if one considers how strongly the argument for curriculum integration is based on the notions of social equity and democratisation.

A further criticism is that the goals of social equity and economic competitiveness which the model tries to address are in conflict with one another and this leads to an epistemological conflation of contradictory pedagogic modes (Muller, 1996). This is an interesting point in view of the philosophy of pragmatism which underlies the whole discourse of multi-skilling and generic outcomes-based education. Pragmatism by its very nature is a synthesis of contra-dictions, and it compels one to suspend the dualistic and binary thinking that compartmentalises educational discourses.

In the present social and political context educational reform would have to address the social equity questions raised by those who have been disadvantaged. The question of integration into the global economy has to be addressed at the same time. Policy-makers have placed a lot of emphasis on the role of education in resolving these questions. This sets the framework for curriculum development and design. Social and political expediency is one way to justify

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curriculum changes, but what about the pedagogic ones?

The integration of academic and vocational training as recommended in the policy proposals for FET in South Africa has long been debated by John Dewey (1916: 251), who argues that the separation of academic and vocational training has its roots in ancient Greek society, where social class divisions mirrored the distribution of knowledge and skills. The differentiated educational system legitimised and reinforced social class divisions between the leisurely and labouring classes. The former received liberal academic education geared towards their own cultivation, while the latter received training geared towards the life of servitude to which they were destined. Dewey's main objection to the separation of academic and vocational training was that it reproduces social class divisions. He proposed curricula that combine vocationalism with academic education and cultural pursuits in order to promote a democratic citizenry (Dewey, 1916: 311).

The differential status of these different types of education affirms the dualism that exists in educational thinking. This dualistic thinking constructs binary relationships between the mind and body, or head and hand (ibid.: 252). Present educational thinking still draws distinctions between the cognitive , the affective and the psychomotor (Kelly, 1989: 6).

Throughout the history of Western educational thought the mind has been privileged over the body and emotions. This assertion is captured in Descartes's renowned statement, 'I think therefore I am' (Landesman, 1997: 88). Dewey criticises this rationalist epistemology and argues that the epistemic separation of the mind and the body reflects the societal divide between those 'who are controlled by the direct concern with things and those who are free to cultivate themselves' (Dewey, 1916: 35). In other words, the epistemic separation of mind and body is a social construct based on societal power relations and social class divides.

Present-day proposals for FET tap into the philosophy that education reproduces and legitimises social class divides. If that is the case, then it seems to make sense to try to employ education to reverse the trend. However, this raises the question of the extent to which education can counteract social class divides that have multiple causes, the most structuring of which is perhaps the ownership and control over productive assets.

The Dewian concept of curriculum integration came as a response to the 'technocratic

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Instrumentalism' that characterised Behaviourism, Managerialism and the Systems approaches to education. The technocratic approaches were influenced by Taylorist scientific management principles and aimed at making education as scientific and precise as possible (Orstein & Hunkins, 1988: 2).

An outstanding characteristic of these approaches is that a curriculum is regarded as a tangible plan based on rational principles by which knowledge could be categorised and sequenced (Gibson, 1989: 43). The classification and categorisation of knowledge creates the strong subject boundaries and divisions between different types and areas of knowledge and between knowledge and skills.

Another important aspect of the technocratic curriculum discourse is the emphasis placed on predetermined learning outcomes. Ralph Tyler, the most noted proponent of technocratic instrumentalist discourse, advances the argument that curriculum objectives make evaluation more scientific. This raises the fundamental epistemological question of what should count as knowledge. Is knowledge restricted to that which is empirically observable, or does it extend beyond that which can be inferred by the senses? This question is central to the critique of outcomes-based education and constantly recurs in the discussion around current models for curriculum integration.

Dewey argued for curricula that integrated academic, vocational and socio-cultural education in terms of the democratising properties of such integration. His arguments have been taken on by present-day proponents of integrated curricula (RSA, 1994; HSRC, 1995).

Much has been said within the modernist discourses of humanism and Marxism about the role of education in oppression and emancipation. Hermeneutic approaches to curriculum construction support the view that curriculum design and practice should lead to the construction of active, reflective, creative and autonomous individuals. Curriculum is therefore constructed through an interactive process between learners and pedagogues (Orstain & Hunkins, 1988: 8), thus curriculum development is geared towards learner-centred modes of knowledge transmission and acquisition.

Critical pedagogy, on the other hand, moves away from the individual to focus on the structural

aspects of education in oppression and emancipation. The primary concern is the use of education as a tool for emancipation. Elements of these educational philosophies can be traced in the current discourses for curriculum integration. The question is whether emancipatory discourses tally with the market discourse of efficiency and competitiveness. A case study in South Africa suggests that the integration of emancipatory and technocratic instrumentalist approaches to education reaches beyond the realms of pedagogy itself. Broader social power relations play a crucial role in determining what stands as knowledge. This adds weight to the post-structuralist argument that knowledge and power are co-implicated (Usher & Edwards, 1994). Pedagogic models cannot always be rationalised in terms of their own internal logic and consistency, but must be viewed within the social context of their construction. Implicit in the proposals for curriculum integration are complicated sets of power relations, and compromise.

It would difficult to isolate the pedagogic justifications for curriculum integration from the social and political ones. However, if one is to discuss whether the forms of curriculum integration which seem to have currency are pedagogically defensible, it may be necessary to construct a framework on which basis pedagogic defensibility can be judged. A number of considerations could inform a model for curriculum integration, as follows:

a)   *Crossing disciplinary boundaries*

This means integrating different fields of knowledge. A person who wants to train as an engineer would need, along with courses in engineering, an understanding of ecology, sociology, and history, to appreciate the social context within which he/she is going to apply that knowledge. Traditional technocratic FET models have divided these areas of knowledge and competencies to the detriment of holistic and integrated notions of development.

b)   *The integration of academic and vocational training*

To end the epistemic separation of knowledge and skills, curriculum development will have to reintegrate skills with their knowledge base so as to end the social separation between doers and thinkers. Of course a prerequisite for this is good foundational education that will ensure that FET learners are not disadvantaged in the theoretical aspects of their education by early curriculum tracking.

c)   *The integration of vocational, academic and socio-cultural education*

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The objective of education is to construct active, creative and reflective pedagogic subjects. The distinction between education and training emerged precisely because the latter failed to engage in a pedagogic process that engenders critical and independent thought. If the goal of creating critics and technicians is to be achieved, then in the selection of curriculum knowledge, academic and socio-cultural education should be evenly weighted with employable skills education and training.

d) *A commitment to learner-centred education*

The mode of knowledge and skills acquisition could be learner centred to make education relevant to the needs and purposes of learners. In practical terms this means that the process of curriculum development and design has to be flexible, and not take the form of blueprints developed by curriculum specialists in isolation from learners and the learning context. The learner-centred methodologies affirm the learner as a pedagogic subject rather than as an object whose behaviour can constantly be manipulated and changed.

e) *The integration of theory and practice*

An important element of the integrated curriculum is the overcoming of the dualisms that separate the head from the hand. Through a system of learnerships, internships, site visits and simulated life experiences, a reciprocal relationship can be established between theory and practice.

f) *Flexible learning outcomes*

An important epistemological assumption that pervades outcomes-based education is the assumed performative nature of knowledge. In subsequent chapters we will encounter strong arguments against the predetermination of curriculum outcomes, on the grounds that (i) this is tantamount to behaviourism; and (ii) it subjects the pedagogic experience to the tyranny of homogenisation. Both these positions raise very valid criticisms, but they do not capture the nature of the problem, this being that not all learning is empirically observable, measurable or subject to classification. While one may be able to determine what type of mathematical calculations a learner ought to do, the same cannot be said for independent thinking or self-realisation. These are different categories of learning experiences, based on individual attributes or particular social settings. They therefore require different treatment. For some learning experiences it is possible to predetermine outcomes, while for others it is not. The distinction

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is important in allowing for a pedagogic process in which outcomes are not immediately observable or quantifiable.

g)   *The integration of outcomes and process*

Flowing from the previous point is the observation that some pedagogic experiences may have observable pedagogic outcomes, while others may not. In the case of the latter, process should be the main signifier. The outcomes-based models are exalted for the fact that they can precisely define learning objectives which can ultimately be measured in terms of observable behavioural changes in learners. This cannot be done for all learning, with the result that certain pedagogic experiences are marginalised precisely because they are not amenable to measurement. The curriculum integration such models refer to is the integration of a set of generic skills that will create better technicians, but not critics.

h)   *The integrated and multifaceted approach to assessment*

With the integration of different types of knowledge, it logically flows that different types of assessment procedures have to be applied. In fact, as we will see in the German case study, assessment is completely omitted in certain areas of knowledge. It is clearly not enough to call for curriculum integration without acknowledging the concomitant shifts in organisation, selection and evaluation of curriculum knowledge.

We will return to these considerations in the final chapter when we consider the extent to which South African proposals for curriculum integration are pedagogically defensible. To find answers to the initial research question, the dissertation will first traverse the philosophical, epistemological and practical dimensions of curriculum integration in FET.

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Chapter 2: International Trends

2.1 THE THEORETICAL CONTEXT: POST-FORDISM

Post-Fordism theoretical analysis starts from the basic premise that global economic production is changing from Fordist mass production to smaller niche-market production, based on flexible specialisation. The changes in production have prompted changes in demand for certain labour-market skills. The most important aspects of change in global economic production are identified by Kraak (1993: 405) as follows: firstly, a high degree of integration of world markets; secondly, a shift away from manufacturing to servicing; thirdly, technological transformation, with special reference to information technologies and computer automation; and finally, the further segmentation of core and peripheral workers.

While still governed by a market discourse, the post-Fordist theoretical analysis is distinguished from narrow instrumentalism. In contrast to the mono-skilling of the latter, post-Fordist models call for the development of multi-skilled, flexible and self-directed pedagogic subjects. The concept of 'broad-banding' refers to the integration of skills to move away from Taylorist single-tasking skill categories to generic or broad-banded categories (ibid.: 498). The integration of different types of knowledge and skills is seen as a way to construct multi-skilled and flexible pedagogic subjects.

The core post-Fordist argument in this regard is that changes in technology and work organisation require the replacement of Taylorist narrow specialisation with multi-skilling or broad-band skilling (ibid.: 71; Kraak, 1996; Grubb 1996: 117). Taking labour-market demand as the point of departure, post-Fordist models advance the notion of creating a flexible, multi-skilled workforce that can transfer knowledge and skills from one context to the next (Archer, 1996; Kraak, 1996; Young, 1996; Finegold, 1990) or move easily between design, production, maintenance and quality control (Green, 1994: 71).

The post-Fordist analysis translates into the generic competency model inherent to curriculum integration. It encompasses new configurations of curriculum knowledge that will develop intellectual ability together with a whole range of technical, personal and interpersonal skills.

The post-Fordist curriculum integration model synthesises competing social discourses. Calls for employability and marketability are interspersed with commitments to developing critical thinking and a democratic citizenry, recognising cultural diversity and providing space for self-realisation (Finegold, 1992; DoE, 1995).

Philosophically the post-Fordist model is indebted to Dewian pragmatism, which tries to overcome the dualistic thinking that permeates the Western approach to education. This thinking has constructed binary relationships between the mind and body, the head and hand, and the cognitive and affective. In addition to trying to satisfy labour-market demand for certain skills associated with a technocratic market agenda, the generic competency model appropriates elements of critical pedagogy by calling for the promotion of critical and independent thought (Finegold, 1992; DoE, 1995). This has always been associated with liberal academic education.

Central to the logic of pragmatism is its treatment of contradictions. Pragmatism suspends the Hegelian dialectic of opposites and seeks to integrate contradictions into a new synthesis (Novack, 1975: 144). The post-Fordist model for curriculum integration synthesises conflicting epistemological, philosophical and pedagogical premises. It draws on the logical empiricism of technocratic instrumentalism, the learner-centredness of hermeneutic approaches, emancipatory elements of critical pedagogy and the cultural politics of post-structuralism. This results in a pedagogic model that conflagrates contradictory pedagogic regimes and appropriates aspects of one pedagogic discourse into another.

There is the view that integrated curricula in FET are tantamount to a new vocationalism due to the dominance of the market discourse (Porter et al., 1992). This raises the question of the extent to which curriculum development and design can be abstracted from the social conditions under which they take place. The prevailing market power relations have led to the hegemony of the market, which education on its own cannot contest. A subsequent chapter will provide an illustration of how the South African model for FET is an outcome of political contestation and compromise between different interest groups, and how this led to an integration of the emancipatory and market discourses.

Epistemologically and pedagogically the assumptions and social logic on which the post-Fordist generic competency model is based are contradictory. If one accepts Bernstein's (1996) under-

standing of competency, one can understand why the post-Fordist model has been characterised as a mix-mode model (Muller, 1996).

Philosophically, discourses of competency have their roots in anti-positivistic theories of the 1960s (Bernstein, 1996: 57). These theories hold an emancipatory view of society, of the learner, and of how knowledge is constructed and acquired. To reveal the assumptions underlying the notion of competency and its emancipatory roots, Bernstein constructs a typology of pedagogic modes. He distinguishes between competency and performance pedagogic modes.

To Bernstein (ibid.: 56), competency models are emancipatory and have the social logic that they:

a)   announce a universal democracy in knowledge acquisition;
b)   construct active, creative and self-regulating pedagogic subjects; and
c)   are critical of hierarchical relations.

This logic has certain implications for pedagogic practice. The learner is regarded as an autonomous subject whose learning is unfettered by external exigencies of the market or educational bureaucracies. Knowledge acquisition is a subtle process of creative interaction. This empowers the learner in the selection, sequencing and pacing of curriculum knowledge. The pedagogue is regarded as a facilitator of knowledge rather than a fountain of knowledge. Space is not clearly defined; strong subject boundaries and grading are completely absent (ibid.: 58-59)

By contrast, performance models represent an authoritarian pedagogic mode where the learner is regarded as a passive recipient of predetermined curriculum knowledge. This mode focuses on the outcome rather than the process of knowledge acquisition. The content, sequencing and pacing of curriculum knowledge is predetermined. There are strong boundaries between pedagogic spaces and subject disciplines, and time is an important marker. The explicit mode of knowledge acquisition and transmission relies on the clearly defined role of the pedagogue or teacher. The autonomy of the learner is completely overlooked, hence the insistence on universalised outcomes against which the performance of all learners is evaluated. Assessment and grading determine the progression of learners within a strongly stratified hierarchical system.

The generic competency model links together aspects of both pedagogic modes. To a certain extent there is acceptance of a universal democracy of knowledge acquisition. In this regard the generic model accepts learner-centred methodologies for the transmission and acquisition of knowledge and learner autonomy in the pacing and sequencing of curricula. The generic model therefore advocates different modes of knowledge acquisition, the portability and transferability of credits, and flexible exit and entry routes.

The predetermination of curriculum outcomes, on the other hand, completely denies the learner's autonomy and subjects the selection of curriculum knowledge to the exigencies of the market and the preferences of education departments. The predetermination of learning outcomes follows the epistemology of logical empiricism (Halliday, 1996: 43) which underlies most performance modes. The epistemology of logical empiricism assumes that all knowledge can be demonstrated and observed through the senses. This invokes a behaviourist premise that by determining outcomes, the pedagogic process will be geared towards manipulating and modifying behaviour to bring out observable changes in line with these predetermined outcomes (Kelly, 1998: 79).

This invokes the concept of passive learning and stands in sharp contrast to the social constructivist epistemologies of hermeneutics and critical pedagogy, which construct active, self-directed, creative and reflexive pedagogic subjects. The post-Fordist model accepts the social logic of performance models that construct passive pedagogic subjects whose behaviour can be modified to attain certain outcomes, with a simultaneous commitment to learner-centred education with an inherent social logic of self-directed, active, creative and reflexive pedagogic subjects. The post-Fordist model therefore combines the epistemological assumptions of logical empiricism with those of social constructivism.

At the level of cultural politics the post-Fordist model makes commitments to the recognition of diversity. This is in line with post-structuralist philosophy, which decries the tyranny of homogenisation (Slatterly, 1995: 16). Post-structuralism celebrates pluralism and diversity (Seidman, 1992: 60). The Australian and South African proposals for curriculum change recognise cultural, linguistic, ethnic and gender differences. This recognition is contradicted by the notions of predetermined outcomes, standardised modes of assessment, and efficiency through the utilisation of economies of scale.

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Some supporters of the generic competency model have responded to the criticism of behaviourism underlying predetermined universalised competencies. Young (1995) attempts to move away from an atomistic and homogenising concept of competency by calling for a connective outcomes approach which relativises outcomes to the expected performance of students. He argues that the task of finding the connections between social context and learner experiences should rest with teachers, who will develop tailor-made modules to suit local contexts. Connectivity links purpose, relationships and process. This signals a departure from atomistic conceptions of competency as a menu of performances which learners ought to acquire irrespective of social context.

Young's connective modular approach exemplifies post-Fordist pragmatism. It tries to find a balance between universality and particularity, since it relativises outcomes to what learners can be expected to know given their social context and individual biographies. At the same time it tries to balance the learning needs of the individual learner with those of the labour market. Conceptually, connective outcomes can act as a counterweight to modularisation, that atomises knowledge into incoherent fragments. Young (1996) opposes an over-specified curriculum on the basis that it cannot lead to reliable assessment, but only to 'box-ticking'. This also usurps the space for pedagogues to use their professional knowledge to design learning experiences.

In a bid to rid competency discourse of some of its behaviourist connotations, Hager and Becket (1996) advance the notion of integrated competency assessment. They acknowledge that different contexts attach different meanings to competency. The notion of integrated competency assessment attempts to capture a holism which synthesises attributes and tasks. It also recognises that knowledge is not only context bound, but culturally driven too. An integrated competency assessment combines the attributes of the practitioner with the characteristics of the context or situatedness.

As previously stated, the most important tool for translating the post-Fordist model into practice is modularisation. While the fear that modularisation could lead to greater fragmentation of knowledge may still be valid, modularisation allows for the integration of smaller chunks of diverse knowledge and skills into learning programmes. This allows for the integration of academic and vocational training, and it allows for greater flexibility in selecting curriculum options. Learners are better able to pace and sequence their own learning.

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The post-Fordist discourse of flexible, multi-skilled workers has attracted criticism from other postmodernists, who argue that this constructs a minority experience as a norm (Edwards, 1991: 122; Westwood, 1991: 46). Westwood (ibid.) argues that dual labour markets are emerging, in which a small core of highly trained flexible workers will experience stable employment and reap high rewards while the mass on the periphery will be confronted with casualised conditions of employment marked by insecurity, low pay and a lack of unionisation. The human-capital premise of the discourse is thus questioned.

Usher and Edwards (1994: 12) contend that discourses of competency create the illusion of empowerment. By entering into the discourse, subjects enter into the web of surveillance and as such only empower themselves in order to disempower themselves. While the point may be over-generalised and over-dramatised, it underlines the political nature of all forms of education. It also provides insight into the philosophical dilemma of pragmatism in its positioning on social transformation vis-à-vis the revolutionary overthrow of the existing order or the social reconstruction of the social order.

Perhaps the most significant conceptual advancement incorporated by the post-Fordist model is the postmodern notion of boundary crossing. This theoretical model crosses the epistemic boundaries which separate the cognitive, affective and psychomotor functions. To do that it must also cross the philosophical boundaries which separate idealism from realism, rationalism from empiricism and hermeneutics from instrumentalism. The result of this pragmatism – as will be gleaned from a cited case study – is mode-switching between contradictory pedagogic regimes.

An important implication of multi-skilling in post-Fordist discourses is that, more than the performance of different tasks, skills should not be separated from their knowledge base. This is an important conceptual advancement for the integration of academic and vocational training. The question this raises, however, is whether the integration of academic and vocational training is limited to the development of better technicians by way of developing a basket of knowledge and skills relevant to a particular occupational cluster, or whether such integration will be broad enough to embrace critical education. In contrast to the democratic ideals of empowerment expounded by modernists like Dewey, empowerment in post-Fordist terms will not occur through collective social action that transforms social structure, but rather, through individual adaptation to and accommodation within that social structure. This reflects the decentering of

the individual akin to other forms of postmodern social analysis. The concepts of democracy and empowerment relate to individual mobility within a socially stratified system of production.

In terms of international models for curriculum integration, we firstly have the German model, which has its roots in medieval times. This model is often cited as an example of best practice when it comes to integrating different types of knowledge, theory and practice, or knowledge and skills. The second model, from Australia, is presently being implemented. The lessons this model holds do not relate to actual practice, but rather to how post-Fordist theories of curriculum integration can be operationalised into a curriculum model. The lessons of the Australian model for curriculum integration are still limited due to the fact that its implementation is still underway.

2.2 MODELS FOR CURRICULUM PRACTICE: INTERNATIONAL CASE STUDIES

In terms of international experiences, Finegold et al. (1990) have developed a typology for educational models that reveal the connections between curriculum tracking, participation rates, production and earnings. Finegold et al. use this typology to argue strongly for integrated curricula in further education on the basis of social and economic competitiveness.

TABLE 1: FINEGOLD'S TYPOLOGY

Functions	How Selection Occurs	Standards Setting	Individual Empowerment
Low Participation	1. Division 2. Exclusion 3. Separation of routes 4. Fixed pathways 5. Low participation 6. Early selection	1. Implicit non-public rules and minimal negotiation 2. Minimal comparability across academic or vocational divide 3. Single-grade reporting 4. Norm referencing	1. Stratified empowerment for separated qualifications 2. Minorities 3. Non-negotiable 4. Age-bound and non-recurrent
High Participation	1. Differential code 2. Progression and flexibility through routes within the system 3. Openness and access 4. High participation 5. Selection postponed	1. Explicit, public criteria for grades and achievement levels 2. Fusion of academic and vocational training leading to comparability across the system 3. Modular reporting 4. Criteria reference assessment	1. Negotiated achievements 2. Potential empowerment across the whole system 3. Recurrent and not age-bound

Source: Finegold et al., 1990: 51.

2.2.1 The Australian Example

In terms of the Finegold typology, the Australian model for curriculum integration fits into the high-participation category. The proposals for Australia's educational reform programme in FET attempt to combine human-capital objectives with the goals of equity and increased participation for disadvantaged groups (Henry & Taylor, 1994: 106). The Finn Commission report (1991) accepts the post-Fordist arguments on the need for flexible multi-skilled workers. It suggests the creation of a number of pathways to allow for access to education and training and for successful articulation between school, post-school, higher education and employment competencies. To facilitate this flexibility and portability, the report outlines key (generic) competencies that should be developed in all young people regardless of what path they follow.

The proposals accept the post-Fordist definition of competency as 'capable performance'. This is in contrast to the anti-positivistic understanding of competency as 'intrinsically creative and tacitly acquired by informal interactions' (Bernstein, 1996: 55).

The key competencies outlined in the Finn report attempt to integrate academic and vocational education in a common national curriculum in all forms of post-school education. They would not constitute curricula per se, but would guide curriculum development and design.

TABLE 2: FINN'S KEY AREAS OF COMPETENCY FOR ALL POST-SCHOOL EDUCATION

1. **Language:** speaking, listening, reading, writing, accessing and using information

2. **Mathematics:** computation, measurement, understanding mathematical symbols

3. **Scientific and technological understanding:** scientific and technological concepts, impact of science and technology, scientific and technological skills

4. **Cultural understanding:** Australia's context, global issues and world of work

5. **Problem-solving:** analysis, critical thinking, decision-making, creative thinking, skills transfer to new contexts

6. **Personal and interpersonal characteristics:** personal management, negotiating, team skills, initiative, leadership, adaptability to change, self-esteem, ethics

Source: Australian Educational Council: 2-2.

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These key areas are generic to all learning programmes and will therefore straddle all programmes irrespective of the learning or path.

The Mayer Commission report (1992) – which followed the Finn Commission report and drew on its recommendations – further developed and operationalised the key competencies outlined in the Finn report. According to the Mayer report, key competencies:

a)   are essential elements of general education, but do not displace the broader principles of general education;

b)   should be confined to those capabilities that are essential for entry into any sector of the labour market;

c)   should have value for all young people regardless of their career path;

d)   do not constitute a curriculum or set of subjects;

e)   can be taught or learned in a variety of education and training settings and programmes;

f)   describe learning outcomes rather than the process by which these outcomes can be achieved;

g)   assume a basis of knowledge, skill and understanding that will be integrated and applied to achieve a purpose or complete a task; and

h)   overlap to some degree due to their integrated nature.

Operationalisation of Key Competencies

The key competencies outlined by the Finn Commission are operationalised by the Mayer Commission (report: 2-2), as follows:

a)   *Collecting, analysing and organising information*: The capacity to locate, sift and sort information in order to select what is required and present it in a useful way.

b)   *Communicating ideas and information*: The capacity to communicate effectively using the range of spoken, written, graphic and other non-verbal means of expression.

c)   *Planning and organising activities*: The capacity to organise one's own work activities, including making good use of time and resources, sorting out priorities and monitoring one's own performance.

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d) *Working with others and in teams*: The capacity to interact effectively with other people on a one-on-one basis and in groups.

e) *Using mathematical ideas and techniques*: The capacity to use numbers, space and measurement, and techniques such as estimation for practical purposes.

f) *Solving problems*: The capacity to apply problem solving strategies in purposeful ways, in situations where the problem and desired solution are clearly evident as well as in situations requiring critical thinking and a creative approach to achieve an outcome.

g) *Using technology*: The capacity to apply technology, combining the physical and sensory skills needed to operate the systems with an understanding of scientific and technological principles needed to explore and adapt the systems.

The rationale for key competencies rather than specific job training is of the same flavour as the rationale outlined in the post-Fordist discourse: rapid changes in work patterns and work organisation makes the future needs of industry unpredictable. Key competencies would form the basis for adaptability, flexibility, portability and transferability of skills in terms of changing industrial needs. Recognising the temporal nature of labour-market demands, the Mayer report further stresses that key competencies should be reviewed periodically.

The link between key competencies and labour-market demands has led to the Finn and Mayer reports being dubbed 'new vocationalism' (Porter et al., 1992: 52). This categorisation does not seem to be without justification if one considers the key competencies that are confined to that which is essential for entry-level positions in the labour market. One concern is that key competencies are identified as a description of outcomes rather than of process, which indicates a separation of the two.

Due to social equity concerns, the Mayer report emphasises the need for strong, comprehensive general education to level the playing field (2-1). This presupposes an equitable distribution of educational resources throughout the country in all foundational education (i.e. primary, secondary, special, etc.). To justify the implementation of a common national curriculum, the report makes the point that learners from a disadvantaged background should be introduced to compensatory learning programmes.

There is the danger that a homogenising national curriculum model may disadvantage those with differential social, educational, gender, racial, ethnic and cultural backgrounds. Henry and Taylor (1994: 118), for example, argue that assumptions of gender neutrality are made while the deeply gendered nature of work is ignored. They treat the concept of skills circumspectly, since the skills that are to be developed are very much defined and evaluated in terms of a (white) male industrial agenda. Porter et al. (1992: 53), on the other hand, challenge that the competency agenda with its many prescriptions is in fact a bureaucratic and managerial solution to economic problems. They further contend that talk about pathways, diversity and flexibility obscure the desire to develop a uniform and standardised training structure under the control of a centralised bureaucracy. This, they argue, represents a tension between post-Fordist curriculum objectives and Fordist management structures.

The Mayer report addresses the criticisms of centralised curricula by arguing for nationally consistent outcomes, but not necessarily nationally consistent ways of achieving them. The report attempts to find a balance between centralisation and diversity by arguing that national consistency can be achieved within the diversity of types of programmes, settings and modes of programme delivery (6-1). The report also poses the problem of epistemological access to standardised programmes and therefore recommends that diversity of provision be undertaken to meet the target of a 95% participation rate. It identifies social groups requiring affirmative or corrective action programmes to facilitate access and equity (9-3).

Although the recommendations of the Mayer report are aimed at redressing and facilitating access, we will later refer to how such redress and facilitation are neglected in practice in favour of more instrumentalist labour-market training.

The attempted move away from narrow task-specific skills underlies the integration of education and training in further education. This is reflected by the broader definition that the report gives to competency (3-1):

> Competency can be defined narrowly to mean the demonstrated capacity to do a specific task, and even more narrowly by detailed specification of the conditions under which performance on the task is to be demonstrated. When used in this sense, it is usually described in terms of skill and generally distinguished from knowledge and understanding.

The report rejects narrow definitions to provide for a broader understanding of competency 'which recognises that performance is underpinned not only by skill but also by knowledge and understanding, and that competence involves both the ability to perform in a given context and the capacity to transfer knowledge and skills to new tasks and situations.'

The broader definition of competency, however, does not do away with its instrumentalism or its behaviourist and positivistic connotations of demonstrative and measurable performance.

The seven competencies outlined in the Mayer Commission's report were defined in terms of their adherence to certain essential characteristics (3-4):

a)   They must be essential to preparation for employment.

b)   They must equip individuals to participate effectively in a wide range of social settings, including workplaces and adult life more generally.

c)   They must be generic to the kinds of work and work organisation emerging in the range of occupations at entry levels within industry rather than being occupation or industry-specific.

d)   One must be able to develop them.

e)   They must involve the application of knowledge and skill.

f)   They must be amenable to assessment.

The market agenda of both the Finn and Mayer reports is amplified by the definition of key competencies: it boils down to preparation for the world of work. The underlying behaviourist assumptions are clear in view of the criterion that key competencies must be amenable to assessment, i.e. observable behaviour. This indicates an omission of knowledge that is not performative. The Mayer report also notes that the key competencies outlined in the Finn report preclude the inclusion of attitudes and values. The Mayer report concurs that values and attitudes fall outside the field of key competencies, as they cannot be credibly assessed (3-4).

Assessment of Competency

To arrive at a nationally consistent assessment mechanism, the Mayer report (4-3) proposes that three performance levels be introduced to provide reference points of achievement.

- *Performance Level 1* will describe competencies needed to undertake activities, to meet the explicit requirements of the activities, and to be able judge the quality of outcome according to established criteria.

- *Performance Level 2* will describe competencies needed to manage activities requiring the selection, application and integration of a number of elements, to select established criteria according to which the quality of process and outcome can be judged, and to judge these.

- *Performance Level 3* will describe competencies needed to evaluate and reshape process, to establish and use principles on which to determine appropriate ways of approaching activities, and to establish criteria for judging the quality of process and outcome.

The Mayer report further lays down basic principles of assessment, namely validity, reliability and fairness. The fairness principle suggests that learners should not be disadvantaged on the basis of gender, race, ethnicity, disability or socio-economic background. The reliability and validity principles demand universalised assessment standards presumably derived from the hegemonic discourse. Porter et al. (1992: 56) point out that assessment standards are not independent of the context of the individual being assessed, nor are they independent of the interests of those doing the assessing, i.e. the educational authorities, industry or state.

The ambiguities around the assessment of competency reflect the epistemological ambiguities of mixing performance and competency pedagogic modes. Hyland (1994: 33-41) invokes Wolf's definition of competency (see ibid.: 40) as being 'a social construct which therefore cannot be observed directly but has to be inferred from behaviour'.

The prescribed criteria of standardised competencies do not take into account the social context within which competency is displayed. The criteria established for measuring competency are developed in terms of certain predetermined norms of performance. In this sense there is not so much difference between the norm-referenced assessment of traditional education and the criterion-referenced assessment of standardised competencies. Hyland (ibid.) points out that validity in assessment is derived from specific contexts, and he therefore questions the assumptions of general validity that are implicit in national standards of assessment. He also questions the predictive validity of competency assessment, i.e. how future performance can be inferred from present behaviour.

The reflexive learner participation in assessment implied in the Mayer report is at odds with the undemocratic predetermination of performance standards. Perhaps Young's (1995) definition of connective outcomes, based on what the learner can be expected to know, is a pragmatic compromise between national standards, local contexts and individual dispositions.

The following points about the proposed competency levels are especially interesting:

a) Competency is assumed to be performative, the demands of industry being the benchmark.

b) A linear cognitive development from one level of competency to the next is assumed.

c) Competency has a built in element of reflexivity, which assumes that all learners will be able to judge achievements according to universalised standards of competency. The element of reflexivity in the learning process presupposes critical reflection of existing practices and introduces an element of hermeneutic philosophy in its construction of reflexive pedagogic subjects.

d) The Mayer report notes postmodernist criticisms of the tyranny of homogeneity and tries to accommodate diversity by arguing that different institutional programmes must be adapted to fit local contexts. However, the report insists that all skills and knowledge, i.e. irrespective of local context, should be evaluated against agreed standards that are nationally consistent.

e) The recognition of diversity is therefore not linked to the hermeneutic conception of different systems of meaning or cultural embeddedness, but rather to physical location or material conditions. The homogenising implications of the dominant cultural forms embedded in standardised education are not debated.

f) The post-Fordist assumption of flatter management structures also works its way into curriculum development through the emphasis on management skills in pre-vocational training.

As far as the equity assumptions of an integrated curriculum are concerned, Henry and Taylor (1994: 119) argue that these assumptions are naïve, since there are competing social class interests underlying the manual-mental skills divide which go way beyond education. They insist that the social class divisions of industrial capitalism remain embedded in post-industrial society. Already universities in Australia have rejected the competency proposals of the Mayer

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Commission. This means that there will be no competency articulation between institutions of higher education and other post-school competency arrangements. This, according to Henry and Taylor (ibid.: 123), will exacerbate the social divide and polarise academic and generic competency-based post-school education.

While the Mayer report does not propose different sets or standards of competency that take cognisance of differential cultural capital, it does recommend differential programme content and learning styles relevant to disadvantaged groups. This is consistent with the notion of different pathways to the acquisition of key competencies as defined in terms of the hegemonic culture. What is still outstanding is a concept of assessment that combines the attributes that the learner brings to the pedagogic process and the broader socio-economic objectives.

Despite the limitations of the Australian proposals, they do represent an attempt to move away from narrow instrumentalist job-specific skills training. Apart from satisfying labour demands, the integration of academic and vocational education does open up broader areas of possibilities, career-pathing, and vertical and perhaps horizontal mobility for individuals who may otherwise be exposed to limiting unidimensional training. The proposals also hold the possibility for the opening of formal access for those who do not come via the traditional route. Multiple exit and entry points and the recognition of learning irrespective of how it is acquired do represent a lifeline for second-chance learners.

The indications are that while the proposals are being implemented, the issues of competitiveness and efficiency have taken precedence over the issue of social equity. According to Mosdell (1997: 13), the Australian FET reform process has the following positive attributes: cost-effectiveness, i.e. low unit costs per student; greater articulation between the needs of industry and FET provision; and the expansion of FET provision through increasing private sector involvement. Its negative attributes, according to Mosdell (ibid.) are as follows: firstly, there is too much emphasis on economic goals with little emphasis on social benefits, meaning that effectiveness and efficiency are privileged over the concerns of social equity; secondly, efficiency does not always imply effectiveness, since the former often implies change in staffing that affects the morale and thus the effectiveness of staff; and thirdly, emphasis is placed on 'hard skills' in technological fields while the humanities and social sciences are devalued.

2.2.2 The German Example

The German model was not developed in the philosophical and theoretical contexts of post-Fordism, but there are indications that educational authorities want to move in this direction in the vocational education arena. The model represents a form of curriculum integration that has its roots in the socio-cultural context of medieval times. The German educational model disrupts Finegold's 'early selection, low participation – late selection, high participation' typology.

Germany has a tripartite division in secondary education (Fisher, 1995: 97) which has a selection function whereby learners destined for academic education and those who will obtain vocational training are selected and channeled into one of three forms of secondary schooling after four to six years of comprehensive primary schooling. The three forms of secondary schooling are as follows:

- The *Hauptschule* ('main school') provides general secondary education to learners who will enter vocational training in the crafts industry and clerical jobs. Learners who have entered this stream will receive a combined period of general education of 9-10 years.

- The *Realschule* ('middle school') provides what is viewed as a higher quality general education than the *Hauptschule* provides, and it also provides access to higher quality vocational training. Learners who have entered this stream will enjoy a period of general education of 10 years.

- The *Gymnasium*, as the highest institution of secondary education, provides access to a university education on completion of the *Abitur* (comparable to British A-levels). Learners who have entered this stream will have a period of combined general education of 13 years.

The model is certainly one of early selection or tracking between academic and vocational training streams. It provides the setting for a divided system of secondary education which prepares learners for different positions within the labour hierarchy. The differentiated status of school-leaving certificates obtained through the system makes switching between streams difficult, and reproduces social class structures in the broader society (Fisher, 1995: 97).

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Although there is a clear division between academic and vocational training in post-school education, academic and general education are not completely absent from vocational training. The policy intentions are to create parity of esteem between vocational and general education to enable vocational training graduates to proceed to higher levels of learning (Government of Germany, 1992: 45) The Masters (*Meister*) qualification enables progression to institutions of higher learning (ibid.) To date these policy intentions have not been realised and vocational education still has a subordinate status (Arnold & Mueller, 1995: 66).

The tripartite model shares elements of the Finegold typology in the following respects:

a)   Educational selection or tracking begins early – after 4-6 years of primary schooling.

b)   Learners who come from the *Hauptschule* will be excluded from academic education. Increasingly, however, those who took the *Abitur* route opt for vocational training and crowd out others.

c)   Pathways are fairly fixed, although there are avenues for compensatory learning for adult learners who wish to complete the *Abitur* equivalent (*Fachhochschulreife*) (Government of Germany, 1994: 14).

The model departs from Finegold's typology in that there are high participation rates in the educational system. In 1937 post-school vocational training became compulsory in Germany (ibid.: 5) . Attendance at a vocational school is obligatory for people under the age of 18 who receive no other form of schooling (Kappler, 1996: 458). In 1990, under the German dual system for vocational training, 74,8% of people aged 16-19 were participating in a vocational training programme (Arnold & Mueller, 1995: 73).

The vocational schools that operate under the dual system of vocational training are the most important of all vocation-oriented education and training institutions, with 70% of school leavers who enter the job market having graduated from such a school (Dawood 1995: 4). (See Table 3 on the following page.)

TABLE 3: THE FURTHER EDUCATION STRUCTURE IN GERMANY

Further Education and Training – *Tertiary Sector*		
Specialised Technical College (qualification for an occupation)	Evening Classes / Adult Education Colleges (university entrance qualification)	University College of Education Technical College College of Administration College of Art (higher education)
Further Education and Training – *Secondary Sector 2*		
Vocational School / Company (occupational school-leaving certificate)	Full-time Vocational and Senior Technical School (restricted access to university)	Second Stage of Secondary (general university entrance *Abitur*)

Source: Government of Germany, 1992.

Vocational Training: The 'Dual System'

The German vocational training system is called the 'dual system' because training is divided between two establishments – the vocational school (*Berufschule*) and the productive enterprise, where in fact most of the learning takes place (Government of Germany, 1992: 6). Most training is given over a period of two to three years and is in part regulated by contractual agreements between a firm and trainee. These agreements cover the nature, content, timetable and aim of the training, as well as working conditions and remuneration. The education law stipulates that firms must release trainees to attend classes at the vocational school.

Table 4 on the following page provides a synopsis of the structure and content of German vocational education. The structure of programmes clearly incorporates the elements that can best deal with the different aspects of the curriculum. Firm-based learning provides access to the latest technology and forms of work organisation, as well as exposure to industrial culture in pre-vocational education. The vocational school provides the theoretical and general educational curriculum component. What is interesting is that this component is not subject to national examinations and therefore gives more autonomy to the educational institution and teachers.

TABLE 4: SYNOPSIS OF STRUCTURE AND CONTENT OF GERMAN VOCATIONAL EDUCATION

Dual System	Firm-based Learning	Vocational School
Sites of learning	Work station, in-house training centre, workshop instruction	Classroom, school workshop, demonstration laboratories
Pedagogic focus	Practical training	Theory and general education
Time	Four days per week	One day per week
Regulatory authority	Firm and business chambers	Federal school authorities
Examinations	Set up by the firm in compliance with the overall regulatory framework	No examinations

Source: Adapted from Arnold & Mueller, 1995: 74.

Curriculum

There are 370 (see Appendix) state-recognised occupations (Government of Germany, 1994: 7), each with its own training curriculum which can differ from one federal state to another.[1] The training is guided by employer demand. The regulatory self-governing bodies comprising chambers of industry and commerce, chambers of craft, chambers of agriculture, chambers of lawyers and notaries and of medical associations all participate in curriculum development and the monitoring of standards (ibid.: 7).

Curricula are co-ordinated by the State Institute for School Education and Educational Research. This institution develops the core curricula which are then adapted by different federal states to suit local needs (Dawood, 1995: 9). Locally adapted curricula involve teachers, who are given time to sit on localised curriculum development forums (ibid.). Curricula are piloted over a period of two years and revised with the input of all stakeholders. Despite localised differences in curricula there are national standards of training which all companies and accredited training institutions must meet. The nationally set training directives designate the occupations requiring training, the duration of the training, the skills and knowledge to be required, a general training plan outlining the time frame for obtaining skills and knowledge, and examination requirements (Government of Germany, 1992: 14).

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[1] Interview with Dr Wurf, principal of the Institute for Commercial Advancement Training Scheme (CATS) based in Braamfontein, Johannesburg, and funded by the South African–German Chamber of Commerce.

The integration of academic and vocational training and theory and practice has come full circle in Germany. The present system has its roots in the Middle Ages when vocational training was based on particular socio-cultural practices and religious beliefs. The integration of practical vocational training with academic training dates back to the twelfth century. In education undertaken by the monasteries, manual labour was regarded as an integral part of 'holy service' to God and therefore as part of the overall education of young people (Arnold & Mueller, 1995: 63). Integration and parity of esteem accorded to general academic and vocational training took place under the auspices of Sunday schools which integrated religious education with the acquisition of commercial and craft skills. This integration persisted up until the eighteenth century when rapid industrialisation broke the monopoly and power of merchant and craft guilds and opened vocational training to broader masses of people (ibid.: 65; Government of Germany, 1994: 4).

Industry began offering vocational training through its own in-house arrangements, while general education became the concern of schools. Academic education gained the status of 'purity' – uncontaminated by the concerns of production. Vocational training, on the other hand, became stigmatised as education for the labouring classes (Arnold & Mueller, 1995: 65).

Attempts to reintegrate and reestablish parity of esteem between vocational training and academic education were underpinned by a human rights discourse which gained ascendancy at the beginning of the twentieth century. The dual system evolved as a result of attempts to reinsert general and theoretical education in vocational training by combining the vocational training function of industry with the general education function of the state (ibid.: 66). The two locations of training, i.e. the vocational school and the firm, do not operate independently and corporatist co-ordinating structures facilitate the smooth functioning of the system (Government of Germany, 1992: 35).

In most federal states vocational schools are organised into five groups: industry, commerce, home management, agriculture and mixed occupations. Within these industrial sector-oriented schools, classes are organised according to individual occupations or groups of occupations (ibid.: 28).

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Specialisation is still at the core of the logic around which vocational training is organised, but each designated cluster of occupational training contains elements of general education and theory relevant to the area of training (Inskip & Spargo, 1997: 3). The integration of general and vocational education, as well as theory and practice, is organised through the concept of specialisation in particular occupations as the basic organising principle (Government of Germany, 1992: 28).

TABLE 5: EXAMPLE OF A VOCATIONAL TRAINING PROGRAMME FOR AN INDUSTRIAL CLERK IN NORTH RHINE-WESTPHALIA

(Block teaching 6-12 weeks of 30 hours per week)	
General Education	**8 hours per week**
Religious Instruction	2 hours
Civics	2 hours
German	2 hours
Physical Training	2 hours
Major Subject Areas	**22 hours per week**
Economics	3 hours
Business Administration	9 hours
Mathematics	4 hours
Accounting	4 hours
Organisational Theory	2 hours

Source: Government of Germany, 1994: 10.

The programme example above makes it clear that training links general education, theory and skills acquisition. Apart from preparing learners for the world of work, the curriculum promotes cognitive, socio-cultural and physical development. Although the programme is organised around particularised occupational skills acquisition, the learner's holistic development is taken into account. Subjects like Religion and Civics enable broader socio-cultural learning. At the same time, theoretical tuition ensures a relationship between skills and their knowledge base. The teacher has a fair amount of autonomy to determine much of the curriculum content and process in the general education component. The study of Religion, for example, need not entail merely scripture reading; it is an area of learning that embraces life skills and social, ecological and ethical issues.[2] The inclusion of Physical Education in the programme underlines the holistic

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[2]   Discussions with Helga Kunz, religious studies teacher at the *Berufschule* in Ludwigsburg, Germany.

approach to development. So, although vocational training is specialised, it is not narrowly focused on the pure acquisition of task-specific skills.

Moves towards post-Fordist production are propelling changes in the social construction of what constitutes a vocation. A reconceptualisation of vocational training has emerged through the insertion of generic skills-building options. In 1987 a new order was declared for vocational training based on holism and the integration of vocational and academic training (Arnold & Mueller, 1995: 6). In 1992 the Federal Institute for Vocational Training (Inskip & Spargo, 1997: 6) affirmed its commitment to multi-skilling by requiring that all trainees should:

a)   demonstrate independence in planning, executing and evaluating their work;

b)   react flexibly to new occupational requirements; and

c)   acquire mobility, i.e. the recognised ability to operate in various contexts.

In 1994 the conference of federal education ministers took an important decision to further integrate skills training with academic education by replacing specific training with broader holistic skills training (*Gleichwertigheitsbeschulss*) (Arnold & Mueller, 1995: 66). Attempts to achieve multi-skilling and flexibility have resulted in the inclusion of core skills training for activities such as independent planning, executing and evaluating tasks. Team work, or the ability to co-operate in groups, has become an integral part of the new vocational training paradigm (Government of Germany, 1992).

The social logic underpinning calls for renewal is located within the discourse of flexible specialisation and constructs creative, active and self-directed pedagogic subjects. The links between vocational training and specific jobs are increasingly questioned as new technologies and forms of work organisation render certain occupational categories obsolete. The calls for greater integration of vocational and academic training are also accompanied by the recognition that new directions in vocational training must link up with lifelong education that will cater to the continuous and unpredictable changes in production (Arnold & Mueller, 1995: 73). The paradigm shift from specific vocational training to generic skills training is in line with shifts towards generic competency models elsewhere.

The German dual system model for vocational training combines general and theoretical education with practical apprenticeship. From a technical point of view the dual system is very efficient. It has the advantage of exposing learners to the context in which knowledge and skills are applied. Learners deal directly with the constant changes in technology. Such exposure is difficult to maintain in the school workshop situation, because replacing obsolete technology for training purposes is costly. Learners are also exposed to the social relations and organisational cultures in which skills are applied. This can have the dual function of ensuring their successful socialisation into professional or vocational cultures. This could also serve as a reference point for critical reflection on the impact of technological change, social relations and industrial culture on their own lives and the lives of others.

Generic competency training is being inserted in vocational training curricula without fundamental changes being made to the institutional framework of vocational training. The need for holism is rationalised in terms of changing labour-market needs, not social equity needs. The divided system still reproduces social divisions, although those divisions are not as crude as they are in many developing countries where income distribution is more skewed.

The success of the German model for vocational training can be attributed to a number of factors. Firstly, spending on education provision is very high. Secondly, there is a high degree of articulation between commerce, industry and education and training providers in curriculum development, quality assurance and placement of trainees. Over 500 000 firms in Germany provide vocational training (Kappler, 1996: 461). Thirdly, the strong commitment of employers to skills development ensures that industry spends over DM10 billion a year on the further education and training of the labour force, as compared to the DM4,7 billion spent by the public sector (ibid.: 470). Lastly, Germany has a highly developed economy, which despite its recent decline can still absorb the majority of trainees. Three out of four training scheme graduates reportedly find jobs (ibid.).

2.3 PRELIMINARY CONCLUSIONS

Despite major differences in their historical, cultural and institutional contexts, the German and Australian models for post-school education and training clearly converge around curriculum integration and the need for holism. Both models support the maintenance and reproduction of

the existing social order, but both provide possibilities for critical reflection.[3] Both models attempt to integrate academic and vocational training within the existing institutional frameworks. While expounding a humanist educational philosophy of self-actualisation and social justice, curriculum discourses for vocational training in Australia and Germany are directed by economic imperatives. What can South Africa learn from these case studies?

The German and Australian models both propose methods for integrating different forms of knowledge with vocational skills in curriculum development. What comes out clearly is that educational models develop under certain social, political, cultural and economic conditions. These conditions cannot always be replicated, which casts doubt over the possibilities for a wholesale transferral of models from one country or context to the next.

The integration of academic and vocational education is not equally weighted in the German and Australian models; vocational education takes precedence in both cases. In Germany most of the learner's time is spent on work-based training, and while there are attempts at integration, the focus is still on skills training. This raises the question of the status of qualifications obtained vis-à-vis purely academic training. The social equity premise of this kind of curriculum integration is highly questionable, since the labour market tends to place a higher monetary value on academic training. Learners who have gone through the FET schemes will therefore be disadvantaged in relation to those who have moved on to higher levels of academic training. Talk of equity and social justice is constrained by the parameters set by the market demands. This gives FET an instrumentalist underpinning.

The same argument applies for the integration of theory and practice. While the German system integrates theory and practice, there is the question of proportions. The vocational school focuses on theory and general education, while work-based training is of a practical nature. The time allocations, however, are disproportionate to a high degree, with four days per week devoted to work-based training and just one day spent at the vocational school (see Table 3 above).

Both models opt for the introduction of vocational education after a strong foundational education. If one is to take the objectives of social equity seriously, then one has to ensure that

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[3] A German friend who taught religion at a vocational school in Ludwigsburg was able to bring ecological issues into the curriculum and in the process awaken a critical consciousness of the impact of nuclear technology on the environment.

the quality, form and content of foundational education will not be advantageous to some and disadvantageous to others. This concern is not of particular significance in South Africa where, as a result of racial exclusion and an extremely unequal resource distribution, many will remain educationally disadvantaged for some time to come. The introduction of vocational education and training after a substantial period of quality foundational education can enhance learning in the FET stage, make progression to higher education easier, and lay the basis for lifelong learning. It would also provide the space for more balanced curricula, because learners should have the capacity to cope with academic training. It is important that FET is not seen as the 'dumping ground' for learners who for one reason or another could not make it in academic institutions.

The German dual system is underscored by active labour-market policies that promote the absorption of graduates into the economy. The relationship between training and employability is clearer than it is in economies with high structural unemployment. The applicability of a curriculum model must therefore not only be evaluated in terms of itself, but also in terms of the broader macro-economic conditions in which it operates.

In Germany employers accept a great amount of responsibility for training, which reduces the cost to the state to provide quality training which incorporates the use of the latest technology. While this increases the power of employers in determining curriculum content, it simultaneously ensures access to training for a greater number of people.

In Australia the demands of the market seem to overtake the objectives of social equity and critical education. This could be ascribed to the fact that the Mayer proposals explicitly omit values and attitudes in favour of knowledge amenable to measurement. The exclusion of this kind of knowledge leaves the door wide open to narrow instrumentalism. The Australian model also suggests less flexibility in assessment. We have seen that in the German model, assessment is completely absent for certain curriculum components. In the Australian model, a curriculum will not include areas of knowledge that are not amenable to assessment.

Although the German model speaks of parity of esteem between vocational and academic education, in reality this does not exist and early tracking reinforces social class divides. Despite this, vocational training institutions continue to provide general education that can promote

democratic citizenry. This was demonstrated in the example of the teacher of religion, who brought environmental degradation issues into the classroom at a time when the state denied the negative effects of nuclear power generation or of toxic emissions from industrial processes.

In both countries curriculum development is geared towards certain learning outcomes, and while provision is made for localised needs, learning outcomes are ultimately assessed in terms of nationally applicable assessment criteria. This has the advantage of ensuring the quality, credibility and reliability of certificates. In a multicultural , multilingual society with extreme inequalities in its resource distribution, homogenised learning outcomes could disadvantage learners who suffered the brunt of an unequal resource distribution or racial, class, ethnic or gender exclusion.

Chapter 3: The South African Proposals for Further Education and Training

3.1 THEORETICAL AND PHILOSOPHICAL UNDERPINNINGS

The two issues that have predicated FET discourses elsewhere, namely economic competitiveness and social equity, permeate the entire body of literature on educational reconstruction in South Africa. This chapter will focus on how policy-makers in South Africa position integrated curricula to address these issues. It will explore how the concerns of economic competitiveness and social equity focus the debate around curriculum integration, and how these concerns will set the parameters for selecting, organising, distributing and evaluating curriculum knowledge.

In the proposed National Qualifications Framework (NQF), FET is a conduit for a number of developmental objectives. The most notable of these is rising to the imperatives of economic globalisation, unification, democratisation and redress (RSA, 1998: 5-6). The South African proposals for FET, as contained in the policy documents cited below, signal a blend of the Australian and German models for curriculum integration in FET:

a) White Paper on Education and Training (1995)

b) Discussion Document on a Curriculum Framework for General and Further Education and Training (1995)

c) Human Sciences Research Council Analysis of the NQF (1995)

d) Report of the National Committee on Further Education and Training (1997)

e) Draft Skills Development Bill (1997)

f) Green Paper on Further Education and Training (1998)

The core values, principles and goals expressed in the 'Report of the National Committee on Further Education' (1997: 5-7) and the 'Green Paper on Further Education and Training' (1998: 10-14) affirm the twin objectives of promoting social equity and global competitiveness and are congruent with the pragmatism of post-Fordist competency discourses that have taken root elsewhere. The proposals combine the democratising objectives of social equity, redress and the recognition of diversity, with the market imperatives of effectiveness and efficiency.

The policy documents exalt the democratising properties of integrated curricula that stand in juxtaposition to the past exclusionary and divisive nature of FET provision. At the same time the market agenda is never absent. In the principles and objectives outlined, the mixture of democratic ideals and market imperatives constantly affirms the belief of policy-makers that they can be achieved simultaneously. The 'Green Paper' (ibid.: 10-12), for example, cites the following objectives of the proposed FET regime:

a) *Redress*: The exclusionary nature of past education provision ought to be addressed through a FET policy which will make institutions representative of the population and accessible to more students, and which will improve the capacity of historically disadvantaged institutions.

b) *Lifelong learning*: To develop a culture of lifelong learning, FET will accommodate new as well as traditional learners.

c) *Nationbuilding*: FET can contribute towards building a new national identity which will ameliorate racial, class, linguistic, cultural and religious divides by embracing unity in diversity.

d) *New cost-sharing relationships between state, civil society and individual*: The FET proposals seek to put an end to 'social welfare' or 'entitlement' models of the state. Individuals, communities, the private sector and the public sector will share the financial burden of FET provision.

e) *Global competitiveness*: The 'Green Paper' argues that the new globally competitive environment demands FET renewal. Curriculum integration is the only way to meet labour-market demands in a knowledge-based economy.

3.1.1 Social Equity

The legacy of apartheid has left in its wake a highly fragmented educational system characterised by gross inequalities in resource distribution (DoE, 1997) and an inability to respond to the demands of restructuring in a globalised economy. The racially fragmented educational system denied the majority of South Africans access to FET, with the result that only 29% of the economically active population have received some form of training (RSA, 1998: 10). Of those who gained access, blacks and women were the most under-represented (RSA, 1996: 24-

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25). With the establishment of democratic governance came an increasing demand for redress and the opening of access to improved education and training, as well as to job opportunities.

The proposals for educational reconstruction in South Africa suggest that FET and the democratisation of society are interrelated. Firstly, an integrated curriculum will engage with the issues of social advocacy, tolerance of difference, the promotion of basic human rights and equity, and the promotion of a sense of self-worth and self-respect (NCFET, 1997: 33). Secondly, providing wider access to FET is seen as a means to ameliorate racial and gender income differentials by creating pathways to job categories from which disadvantaged groups were excluded in the past. Thirdly, new post-Fordist forms of work organisation are said to have flatter, more democratic management structures. Such work organisation will require flexible, multi-skilled workers, who can be deployed at multiple levels of the organisational structure and have a greater say in decision-making. In this regard an integrated curriculum will aid workplace democracy by developing subjects who are flexible, who think critically and who are able to solve problems (ibid.: 37).

In the South African context, variations of the post-Fordist argument draw in the question of the democratisation of knowledge distribution, with the human-capital objectives of skills formation for global economic competitiveness (Young, 1996: 2). The National Qualifications Framework (NQF) is promoted as the tool through which this can be done.

The NQF is the qualifications framework that policy-makers hope will provide a holistic answer to the personal, social and economic questions facing South African society (HSRC, 1995: 5). The NQF is seen as a means to integrate education and training into a single, unified and coherent system. This will do away with educational fragmentation, be it racial or sectoral, to allow for transferability and progression between sectors. The NQF model is built on a premise of individual mobility within the educational system and within the career and social hierarchies. In both institutional and curriculum terms, the key to this mobility and transferability lies in an integrated approach.

The NQF promises greater access to South Africans who have been disadvantaged. It also promises greater learner autonomy in determining the pace, sequencing and combinations of curriculum knowledge. The question remains, however, whether the new system will not create

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new social divisions between learners who have received liberal academic education in an expanding private and commercialised educational system and those who have received more functional public education guided by labour-market demands.

In terms of the post-Fordist model for FET, the social divisions stemming from differentiated education and early curriculum tracking will dissolve with integrated curricula. This does not mean that social divisions will not be exacerbated by differences in private and public education, and by the entry qualifications of autonomous institutions of higher learning that may favour people who have gone through the private system of liberal academic education.

3.1.2 Global Competitiveness

In the South African context the questions of social equity and global competitiveness have been bound through the racial exclusion of the past. It is argued that past exclusions and rigidities in educational provision have resulted in a large skills deficit in the South African economy. Comparisons with other 'middle-income countries' reveal the skills deficit in different labour categories. Only 3,7% of South Africa's population work in the highly skilled professional group, compared to 7,8% of the populations in comparable countries, and 12,4% of South Africans work in the craft and trade industries, compared to 18,3% of the populations in comparable countries (NCFET, 1997: 35). In addition to the quantitative lack of skills, the quality of available skills also lags behind international standards (ibid.: 2).

The draft proposals for employment equity posit educational deprivation and the unequal distribution of assets as the key factors perpetuating inequality in South Africa. The statistics cited reveal a positive correlation between access to education and access to income (RSA, 1996: 13-25). The employment equity proposals make provision for an education and training system that will overcome barriers to securing employment and facilitate career-pathing. The proposals for educational reconstruction therefore aim to redress social inequity and the skills deficit that resulted from past exclusions simultaneously.

The question of global competitiveness brings the human-capital objectives of the post-Fordist discourse into focus. The 'Green Paper on Further Education and Training' (1998) places the need for educational reconstruction within the contexts of international changes in work

organisation, the internationalisation of occupations and occupational standards, and changes in technology. It is feared that failure to respond to these changes will lead to increased global economic marginalisation.

The broad-banding of skills and knowledge in order to attain polivalency[4] (Kraak, 1993: 407) means that, far from the previous strict regimentation and supervision of labour, workers would have be skilled to take over multiple tasks that include innovation, decision-making, problem-solving and team work. The move away from single-tasking to multi-skilling will characterise future labour-market training. Kraak contends that new computer technologies require a broadened educational foundation to develop abstract, problem-oriented skills.

The question is not whether post-Fordist economic organisation is a reality in the South African context, nor whether this form of economic organisation is in fact desirable, but rather, it is whether human-capital development should be geared towards global trends if South Africa wants to compete globally. Although the 'Green Paper' (1998: 13) acknowledges that South Africa's transition to a post-Fordist economy is slow and only partial, it nonetheless emphasises the need to adapt to global changes.

In defence of narrow vocational skills training, Inskip and Spargo (1997: 3) question the need for a broad general education and theoretical training to attain occupational competency. They argue that vocational competence can be attained by people with low literacy levels who are not *au fait* with abstract model-building (ibid.). Inskip and Spargo advance a vocational training model for South Africa that resembles the German dual system. The point they miss is that the German model itself represents a form of curriculum integration, with the generic competencies discourse gaining currency.

The discourse of multi-skilling has taken precedence over the narrow vocational skills training which dominated the training agenda of many developing countries during the 1960s and 1970s. The World Bank, in a review of its education and training assistance programmes, resolved to reduce funding to diversified and vocational schools because in most countries the costs of vocational schooling outweighed the benefits (Middleton, 1991: 16-17). The review report cites Bangladesh and Cameroon as countries where less than half the graduates of public vocational

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[4]   Polivalency is a term used by Kraak to denote multi-skilling.

schools were able to find waged employment.

The numerous international case studies cited by Fisher (1993: 84) underscore the negative social consequences of early curriculum tracking. Cross-national studies reveal a lower cognitive achievement by those who have followed the vocational track in Europe and the United States (ibid.: 82). In Tunisia and Jordan, few vocationally trained learners use their specialised skills in the industries in which they find employment. In the United States, few or no variations in economic returns were found between learners who were vocationally streamed and those who were academically streamed. In Chile and Colombia the returns for vocational or technical training were higher than the returns for general education. In the Philippines, Turkey, Thailand, Bangladesh[5] and Indonesia the returns for vocational training were lower than the returns for a general education. All this points to a wide discrediting of narrow vocational skills training in the international environment.

The notion of a skills deficit in South Africa is not unanimously affirmed. (Samson and Vally 1997: 41) questions whether the labour market can absorb the numbers that the NQF seeks to enskill, and concludes that the arguments for global competitiveness and human resource development are ideologically motivated and present new forms of capitalist development as the only solution to the problems of unemployment and poverty. Some of Vally's arguments can be backed up by empirical data. Statistics from the Department of Labour show that of the 49 000 people trained by the department in 1995, only 20% were able to find employment in the formal wage sector. Of the 54 000 who were trained for self-employment in the informal sector, less than 14% were active in that sector (*Cape Times Business Report*, 19.08.96).

Changes in production have resulted in certain occupational categories becoming obsolete, and investment in labour-saving (capital-intensive) technology has resulted in job losses despite economic growth. It is estimated that job creation in South Africa lags behind economic growth at a ratio of 1:2 (NCFET, 1997: 36). This raises questions about assumptions of a linear relationship between education and economic development. The trends caution against the logic of linear causality that is evident in instrumentalism, which proposes that skills development will lead to employment and economic growth.

Fisher's case studies also sound a warning against the early introduction of educational tracking

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or the vocationalisation of education in the interests of economic expediency. The failure of narrow vocational training to lead to greater employment or self-employment opportunities has led to the conclusion that vocational training should only be introduced once the highest level of general education has been acquired (Middleton, 1991: 47; Fisher 1995: 89-90). The World Bank has identified a number of problems with vocational training: it is expensive to run, qualified teachers are often difficult to find, and vocational training does not automatically lead to employment because there is not always a perfect match between the skills acquired and the market demand for them (Chisholm, 1997: 219).

The advantage of attaining higher levels of general education is that learners are better able to develop the metacognitive abilities that promote conceptual and problem-solving skills. A general education will also provide the foundation for education and training that can enhance the flexibility and transferability required from a globally competitive labour force (Middleton, 1991: 9-12). Policy-makers in South Africa have recognised the need for a sound foundational education as a prerequisite for quality FET (NCFET, 1997: 43). At this point it is difficult to see how this can be guaranteed in view of the limits on social spending enforced by the GEAR [6]economic austerity programme.

Young (1996) prefaces his support for integrated curricula in a unified qualifications framework with social equity arguments. He points to how educational tracking draws the divide between those destined for academic education and those who are channelled into the vocational stream. Accordingly this reinforces class, gender and racial boundaries, as well as social inequalities. Young argues that a qualifications framework should move beyond the question of economic efficiency to address the question of social inequality, and he concludes that a unified system of qualifications as proposed by the NQF can avoid the pitfalls of 'early selection, low participation' models which limit access to further education for the majority of citizens.

3.1.3 The Structural Context

The South African proposals for FET are located in the framework of general educational renewal as expounded by the recently adopted NQF. The NQF follows the example of the

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[5]   Cited in World Bank Report, 1991: 12.

[6]   GEAR stands for the Growth, Employment and Redistribution economic policy adopted by the South

qualification frameworks adopted in Australia and New Zealand. The hallmark of these frameworks is the idea that in an attempt to develop multi-skilled, flexible and transferrable workers, the framework has to be flexible as well.

The structure of the framework allows for multiple entry and exit points, and for articulation between different levels of education, different fields of knowledge, and different educational sectors. This crossing of barriers will help to overcome past rigidities that did not allow for the transfer of credits and for the linking of different fields of knowledge. The NQF proposes a structure of vertical and horizontal linkages between domains of knowledge, certification levels and educational sectors, i.e. those of general education, further education and higher education.

The vertical linkages represent hierarchical performance levels and educational sectors. The horizontal linkages represent the integration of different domains of knowledge and different types of skills. The NQF will allow for progression and transference between vertical and horizontal bands.

TABLE 6: NQF STRUCTURE OF VERTICAL AND HORIZONTAL LINKAGES BETWEEN DOMAINS OF KNOWLEDGE, CERTIFICATION LEVELS AND EDUCATIONAL SECTORS

Horizontal Linkages				Vertical Linkages
Qualification X				*Higher Education*
Unit 1	Unit 2	Unit 3	Unit 4	*Further Education*
Level 1	Level 1	Level 1	Level 1	Performance Level 3
				Performance Level 2
Mathematics	English	Ecology	Technology	Performance Level 1
				General Education

Source: Education Information Centre, 1996.

The horizontal linkages should ensure multi-skilling because different fields of knowledge will be integrated. The basis for vertical progression would be the ability to achieve certain performance levels.

The vertical and horizontal integration of performance levels and fields of knowledge reflects the core of the NQF generic competency model. The integration of different fields speaks to

African government. Critics refer to it as South Africa's self-imposed structural adjustment programme.

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the holism of education which develops different aspects of the individual. Vertical integration presupposes that the different forms of knowledge can and must be assessed and graded to enable progression from one level to the next. The implications of this integration will require new approaches to the selection, acquisition and assessment of curriculum knowledge.

3.2 FRAMEWORKS FOR CURRICULUM INTEGRATION

In terms of the NQF, FET is placed in bands 2-4 after 10 years of general education (HSRC, 1995: 20). FET is the term used to describe post-compulsory, pre-tertiary education and training (Consultative Forum, 1995: 2). The following three principle learner categories will be targeted by FET (NCFET, 1997: 38):

a) The *pre-employed*, meaning all prospective new entrants to the labour market.

b) *New entrants* to the labour market who already have work.

c) The *unemployed*, who are divided into two further categories: those below 30 years of age with at least nine years of schooling, and those older than 30 with less education.

The institutional and organisational frameworks for the implementation of integrated curricula across the FET band will follow an integrated approach. This involves the integration of different types of knowledge, as well as articulation between different institutions and educational sectors. There will be articulation across government departments and between government departments, private providers and community service organisations. It is also envisaged that the NQF itself will ensure integration between FET and other educational sectors, namely the General Education and Higher Education bands.

3.2.1 The Institutional Framework

In line with the technology of governance based on strategic partnerships, FET institutional development will be based on co-operative governance between different government departments and levels of government, and between government, private and non-profit community-based providers. Two important pieces of legislation that are expected to be passed, namely the Further Education and Training Bill and the Skills Development Bill, will provide complementary legislative frameworks for FET (RSA, 1998: 21).

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To take the notion of co-operative governance and cost-sharing further, the 'Green Paper' (ibid.: 24) calls for institutional diversity. This sets the stage for reduced government responsibility for FET provision. It is envisaged that FET will be offered by a host of institutions, i.e. public schools, public colleges, independent schools, on-the-job training providers and other enterprise-based providers (ibid.: 14-15). The state will enter into funding contracts with providers based on the number of full-time students in approved programmes. The funding formula also incorporates a user-fee component. Students who are in a position to pay will be compelled to do so. All providers and programmes will have to be accredited by the South African Qualifications Authority (SAQA).

'Co-ordination', 'articulation', 'flexibility', 'diversity' and 'responsiveness' are the operative words throughout the documents describing the envisaged curriculum and institutional framework. Co-ordination and articulation between the different government ministries and levels of government, and between different educational sectors within the NQF, will be regulated through the establishment of a number of statutory and non-statutory bodies. In addition to the envisaged co-operation between the Departments of Education and Labour, articulation will traverse ministries. An interdepartmental committee will be established to link different government departments working in the area of human resources development. This committee will comprise the following officials (ibid.: 78):

- Minister for Public Service and Administration
- Minister for Health
- Minister of Environmental Affairs and Tourism
- Minister of Trade and Industry
- Minister of Minerals and Energy
- Minister for Provincial Affairs and Constitutional Development

The Minister of Education will also appoint a National Board for Further Education and Training (NBFET), which will ensure that FET policy is implemented to meet the national developmental objectives. Among other things, this board will liaise with the Ministry of Labour and other stakeholders to ensure co-ordination of FET policy, and submit annual reports to Parliament on the state of FET in the country. The board will embody a Co-ordination and Implementation Unit comprised of officials from the Department of Labour, the Department

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of Trade and Industry, the Department of Arts, Culture, Science and Technology, the Provincial Departments of Education, the National Departments of Education and Higher Education, the National Skills Authority, the South African Qualifications Authority and the National Youth Commission (ibid.: 77).

Despite all the steps to be taken to ensure integration in FET, the 'Green Paper' (ibid.: 75) envisages that the full integration of education and training will not be immediately achievable. There still seems to be a lack of clarity on how the learning programmes of different government departments will be integrated. For example, private providers will be governed by the FET Act and would have to register with the Department of Education (DoE), while enterprise-based training will be governed by the Skills Development Act and will fall under the jurisdiction of the Department of Labour (DoL) (ibid.: 83).

Despite the stated commitment to interdepartmental strategies, it is not clear how the different accrediting authorities – the DoL's Sectoral Education and Training Authority (SETA) and the DoE's South African Qualifications Authority (SAQA) – will co-operate to bring about this integration. At this stage a Ministerial Task Team has been appointed to, among other things, 'give effect to the integrated approach to education and training' (ibid.: 44).

3.2.2 The Curriculum Framework

Starting with the 1995 proposals, successive curriculum framework documents have reiterated the intention of integrating education and training. The problem has been that they are all rather long on the 'why', but fall short on the 'how'. Thus far most documents have outlined some principles for integration, envisaged outcomes, methods of assessment and quality assurance, but the official version still lacks an account of how all this is to be put together.

Principles and Objectives

The curriculum framework discussion document (DoE, 1995: 16-22) outlines the principles that will guide curriculum development and design in FET. These principles reflect a combination of technocratic instrumentalism and emancipatory ideals. The principles are as follows:

a)   *Human resource development*: This is linked to the requirements of the labour market and

speaks to the need for developing new knowledge, skills and technologies, as well as a flexible labour force.

b) *Learner-centredness*: This expresses the desire to develop learning programmes, materials and methodologies that place the learner at the centre of the learning process. It also underlines the need to take into account and cater for different capabilities and social and cultural backgrounds.

c) *Relevance*: This stresses that curricula should be relevant to the present and future needs of the individual and society, or in other words, they should facilitate economic growth, societal stability, global competitiveness and active participation in social, political and economic life.

d) *Integration*: This is seen as a way to overcome occupational and class distinctions, and also to facilitate economic development and democratisation.

e) *Differentiation, redress and learner support*: To facilitate access to greater numbers of learners, programmes should explore a host of methods and approaches that will enable learning for those who are disadvantaged in one way or another.

f) *Nation-building and non-discrimination*: This will promote the development of a national identity and the ability of learners to locate themselves geo-politically. Appreciation of multiculturalism and multilingualism and respect for human rights and difference are covered by this principle.

g) *Critical and creative thinking*: This will promote logical, analytical, holistic and lateral thinking, and nurture a balance between independent, individualised thinking and social responsibility.

h) *Flexibility*: This will provide a wide programme choice, and flexible entry and exit points so that learners can pace their own learning.

i) *Progression*: This will be based on the attainment of certain learning outcomes, and the recognition of and accreditation for prior knowledge will be taken into account.

j) *Credibility*: Learning programmes should have internal and international credibility.

k) *Quality assurance*: SAQA will assure the quality of programmes through National Standards Bodies and accredited Education and Training Qualifications Assurers.

The 'Green Paper' (RSA, 1998: 37) builds on these principles by outlining the objectives of the

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curriculum agenda:

a)   To mobilise all human talent and potential, through lifelong learning, as a means of fostering individual growth and development and to contribute to the social, economic, cultural and intellectual life of a rapidly changing society.

b)   To train and provide the human resources to build and strengthen the country's enterprises, services sectors, public sector, communities, families and infrastructures. This requires the development of responsible, committed citizens, with globally competitive skills that will contribute to national development and social transformation.

c)   To facilitate the continuous improvement, innovation and maintenance of technologies in order to strengthen national growth and competitiveness.

d)   To pursue the vision of accessible, flexible, responsive, equitable and self-actualising learning, as a means of building a democratic, just and progressive society and to provide opportunities and improved life chances for the disadvantaged and vulnerable.

If one compares the 1995 DoE principles to the objectives outlined in the 'Green Paper', it is interesting to note that the latter make no explicit mention of the critical education aspects of the FET agenda. The objectives are biased towards labour-market objectives.

The desired outcome of the learning experience will be expressed in unit standards. A unit standard describes the outcome that an individual ought to achieve in order to obtain a particular credit (HSRC, 1995: 4). The NCFET report (1997: 51) recommends that the relationship between unit standards and curriculum be such that it ensures that all curricula include both theory and practice.

These principles and objectives are translated into curriculum outcomes that mix market imperatives with the construction of democratic citizenry. The 'Green Paper' identifies different types of outcomes that will guide curriculum development and design. It is argued that these outcomes capture the knowledge, skills and values necessary for a learner's future success (RSA, 1998: 43).

The outcomes can be separated into two categories: broad social outcomes that deal with

societal developmental concerns, and metacognitive outcomes that deal with intellectual development and skills training. The metacognitive outcomes are termed 'critical outcomes', and the social outcomes are termed 'developmental outcomes'. (See Table 7 on the following page.)

TABLE 7: BROAD SOCIAL AND METACOGNITIVE OUTCOMES

Critical Outcomes: Metacognitive
1. *Problem-Solving Skills*: Identifying and solving problems in which responses display that responsible decisions using critical and creative thinking have been made.
2. *Teamship*: Working effectively with others as a member of a team, group, organisation or community.
3. *Self-responsibility*: Organising and managing oneself and one's activities responsibly and effectively.
4. *Research skills*: Collecting, analysing, organising and critically evaluating information.
5. *Communication skills*: Communicating effectively using visual, mathematical and/or language skills in the modes of oral and/or written persuasion.
6. *Technological and environmental literacy*: Using science and technology effectively and critically, and showing responsibility towards the environment and the health of others.
7. *Developing macrovision*: Demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

Developmental Outcomes: Social
1. *Learning skills*: Reflecting on and exploring a variety of strategies to learn more effectively.
2. *Citizenship*: Participating as responsible citizens in the life of local, national and global communities.
3. *Cultural and aesthetic understanding*: Being culturally and aesthetically sensitive across a range of social contexts.
4. *Employment-seeking skills*: Exploring educational and career opportunities.
5. *Entrepreneurship*: Developing entrepreneurial opportunities.

Source: Adapted from RSA, 1998: 35.

Qualification-specific Outcomes

The qualification-specific outcomes are desired outcomes for specific qualifications as determined by the SAQA. They include a set of generic outcomes relevant to the particular level of

study, e.g. NQF Level 2. These are fundamental outcomes not related to the specific field of study, but necessary to obtain the qualification. The second set of outcomes are core outcomes. These are compulsory outcomes linked to obtaining a specific qualification. Elective outcomes are additional credits which are subject to the learner's choice.

Fundamental Learning Outcomes

Fundamental learning outcomes describe outcomes that are necessary to obtain a qualification. In each field the fundamental learning outcomes will be stipulated, e.g. a minimum of 16 credits in Mathematical Literacy will be a fundamental requirement for obtaining a Level 4 Further Education and Training Certificate. The outcomes are not occupation-specific, but they are necessary for obtaining any FET qualification.

Core Learning

Core learning refers to the contextual nature of particular learning programmes. For example, developing a business plan will entail core learning in Business Studies or a commercial field.

Elective Learning

Elective learning can refer to three things:

a) Additional credits that will enhance learning in particular career directions. In essence this will involve specialisation within particular occupational fields, e.g. a student of Business Management may decide to take additional credits in Marketing as an area of specialisation.

b) Programmes that will provide broader socio-cultural, socio-political, socio-environmental, socio-historical or socio-economic education, which will enhance the student's understanding of the broader societal context in which he/she is operating.

c) Work-related experience that will lead to work-based credits, which will smooth the transition from school to the workplace.

3.3 ORGANISATION OF CURRICULUM KNOWLEDGE

Fields of Study

In contrast to the strict separation of subject disciplinary boundaries, the 'Green Paper' (RSA, 1998: 36) proposes the integration of different academic disciplines and skills to form occupational clusters. These fields of study indicate a coherence between areas of knowledge and skills that will ensure competent performance in an occupational field. Twelve fields of study have been identified:

- Agriculture and Nature Conservation
- Culture and Arts
- Business, Commerce and Management Studies
- Communication Studies and Language
- Education, Training and Development
- Manufacturing, Engineering and Technology
- Human and Social Studies
- Law, Military Science and Security
- Health Sciences and Social Services
- Physical, Mathematical, Computer and Life Sciences
- Services
- Physical Planning and Construction

Modularisation

Modularised programmes will be introduced to ensure a flexible learner-centred approach to curriculum organisation (NCFET, 1997: 52). Learning programmes will be divided into coherent segments of knowledge and skills to enable learners to acquire the credits they need. While the framing decisions with regard to length and time will rest with the institution, framing will be done with due regard for learners' needs. Learners will also be able to pace their own learning. It is argued that the modular system will also facilitate the recognition of prior learning, since knowledge will be credited irrespective of the mode of acquisition. This will allow for different modes of acquisition, for example, face-to-face learning, distance learning, or other forms of self-study. The 'Green Paper' in fact foresees that among differential modes of learning, that of distance learning will become very important in facilitating wider access, particularly to those who are already employed and those who cannot attend face-to-face learning institutions.

All these sets of outcomes, fields of learning and components of learning would still have to be fleshed out in concrete learning programmes with their concomitant unit standards. It is difficult to imagine how different bodies of knowledge and skills will be disaggregated or isolated into learning outcomes that will in turn lead to a multitude of unit standards.

As they stand, the proposed learning outcomes and learning programmes only provide a framework for curriculum development and design. The SAQA-accredited National Standard Bodies and Standard Generating Bodies will be responsible for developing the unit standards that will determine the credits for different occupational clusters. In terms of the stakeholder model for curriculum development, the Standard Generating Bodies will be comprised of representatives of the state, organised business, labour and social sectoral organisations.

3.4 CURRICULUM DEVELOPMENT AND DESIGN PROCESS

The NCFET report (1997: 55) proposes that curriculum development be undertaken with the involvement of all stakeholders. These would include industry (business, labour and training boards), higher education providers, learners, educators and trainers. Centralised supervisory bodies will oversee the curriculum development process and ensure successful implementation. The report further recommends that the process be inclusive and representative, with a balanced representation of experts and stakeholders.

The pragmatism which leads the conjoining of different and often contradictory social projects can be placed in the context of a technology of government which unites the interests of different class sponsors, namely the educational middle class which sponsors the discourse of empowerment and the entrepreneurial middle class which drives the discourse of economic competitiveness (Muller 1996: 6). In contrast to critical theory, which sees social conflict as inherent to a society based on the domination of one group by another (Gibson, 1986: 6), post-Fordism argues that economic renewal will involve co-operation between labour and capital (Kraak, 1993: 408).

The process of curriculum development and design is reflective of the new technology of

governance which binds opposing interest groups. Prior to the adoption of the 'Green Paper', there was a lot of contestation in the policy debates. Representatives of the COSATU-ANC alliance were the main proponents of an empowering socio-cultural education that would enhance democratic participation in all aspects of social life, while representatives of the industry-based National Training Board supported a narrow skills-oriented approach (Chisholm et al: 1996: 74; HSRC, 1995: 35-37). The concept of learning outcomes integrates the contradictory positions in the curriculum debate, since it provides the space to include both socio-cultural education and the knowledge and skills required by the labour market. This is crucial to understanding why the seemingly contradictory social objectives and the resulting integration of different pedagogic modes characterise the proposals for FET reconstruction.

3.4.1 Learnerships

The influence of policy-making for the German dual system for further education is made visible by the introduction of learnerships. The Department of Labour, in its draft Skills Development Bill (1997: 7), proposes a dual system of learning where the training provider gives structured theoretical training while businesses provide the work experience for a relevant qualification. At this stage it not clear what the weighting would be between vocation-oriented learning and academic education, or theory and practice.

It is envisaged that learnerships will be centrally regulated through learnership agreements that will be registered with the relevant Sector Education and Training Authority (SETA). The degree of articulation that will exist between the Department of Labour's learnerships and the Department of Education's work-based training programmes is uncertain, nor is it clear what the articulation will be between the SAQA's National Standards Bodies and the Education and Training Qualifications Assurers.

3.4.2 Pedagogic Practice

The 'Green Paper' does not make specific reference to pedagogic practice. The NQF literature signals a commitment to learner-centred education. With regard to pedagogic practice in FET, the NCFET report recommends a learner-centred approach to teaching and learning (1997: 53),

but the concept of learner-centred education in FET is under-elaborated. The report outlines some principles that should inform the mode of delivery, namely flexibility, quality, cost-effectiveness and responsiveness, but all these principles are mentioned in passing and none are sufficiently elaborated to provide insight into what this may entail.

The descriptions of learner-centred curriculum practice are at most ambiguous and contradictory. Each institution will implement what it understands by learner-centredness, guided by cost-effectiveness. Under circumstances where the market rules supreme, it is most likely that cost recovery will override pedagogic concerns. Although the recommendations do guard against prescriptiveness, they do not speak to the basic philosophy underlying learner-centred education.

Assessment of Knowledge and Skills

The 'Green Paper' (RSA, 1998: 46) advocates a criterion-referenced system of evaluation. This means that learners will be assessed in terms of learning outcomes and unit standards they have to achieve. The purposes of assessment will be to provide valid and reliable information about learner achievement and competency, and to ensure validity and currency of qualification with employers and higher education institutions.

The NCFET report (1997: 59) predicts that a FET certificate will consist of around 120 credits. The key principles that would guide assessment are reliability, validity and transparency. While the report argues that unit standards will not be narrowly defined – as they are in Australia and the United Kingdom – it gives little indication of how broad or narrow they will be (ibid.: 50). Quality assurance and credibility will be attained through unified national standards. Final assessment would therefore take the form of final examinations (ibid.: 60).

Without providing much detail, the NCFET report further advocates some form of integrative assessment that will link up the different knowledge segments acquired. It emphasises, however, that this should not compromise prescribed unit standards (ibid.) The contradiction between balancing broad integrative assessment with predetermined outcomes becomes apparent if one accepts the former as context-bound and therefore not amenable to universalised unit standards.

The outcomes-based educational discourse marks breaks and continuities with the past. The history of struggle infuses educational reconstruction with emancipatory ideals of self-realisation

and empowerment, while the technocratic instrumentalism of the past are represented in a post-Fordist language of description. The new technology of governance which calls forth notions of power-sharing and reconciliation links these emancipatory ideals with nation-building, social reconstruction and economic growth. The philosophy of pragmatism which the post-Fordist model draws on involves notions of mediated interests between those who are disenfranchised and those who control the political and economic resources. At present this mediation takes the form of centralised negotiating between representatives of different organised groups in society.

While the integration of knowledge and skills is aimed at overcoming occupational and class divides, the programmes suggested will reinforce precisely such divides. Further education programmes that move along the continuum from the general to specific amount to curriculum tracking between those destined for higher education and those who will take up entry-level positions in the labour hierarchy. As long as curriculum development and design are constrained by the needs of a structurally segmented labour market, occupational and class boundaries will remain. What the proposed programmes could hope for at most is that labour-market skills combined with academic and socio-cultural education will promote the all-round development of learners and multi-skilling in the labour market.

Throughout the discussion on curriculum integration the strands of economic competitiveness and social equity are constantly conjoined. From time to time this leads to contradictory policy statements. The NCFET report (1997: 49) speaks of a broad national curriculum framework that can effectively and efficiently exploit economies of scale, meaning that learning programmes, materials and resources should be replicated and widely used. This is reiterated in the 'Green Paper' (RSA, 1998: 85). At the same time there is the stated intention to allow for relevant and contextualised learning. It is uncertain how this uniformity will fit into the many different local contexts and individual learning needs.

A fundamental problem with the proposals on curriculum practice is that they lack conceptual clarity. This vagueness can easily be explained in terms of a democratic culture of non-prescriptiveness. The danger, however, is that outcomes will be placed over process, and that emphasis will be placed on those outcomes that the market will reward. The NCFET concept of integrated assessment requires elaboration. Judging from the curriculum outcomes outlined

and the programmes suggested, indicators for the measurement of different fields of knowledge and skills would have to be developed. But one would also have to accept that some areas of knowledge cannot be measured within a specified time frame or against explicit criteria.

The principles for meaningful curriculum integration as set out in the second chapter (pp.27-30) of the South African proposals for the integration of education and training in FET do signal significant advances. They propose:

- the integration of different areas of knowledge;
- the integration of knowledge and skills;
- the integration of academic and vocational training; and
- adherence to learner-centred methodologies.

Where the proposals falter is at the levels of process and outcomes. The notion of learner-centred methodologies advocated is limited to already defined learning outcomes. This stands contrary to the hermeneutic roots of learner-centredness, which see curriculum design as an ongoing social practice. The learner-centredness proposed has its merits, but there is also the danger that it could become a veil for narrow instrumentalism and reduced state responsibility for education. Since outcome is ultimately all that matters, learners may be robbed of valuable pedagogic experiences which are not directly measurable or rewarded by the labour market.

Another weakness in the proposals is the ambivalence with which assessment is conceptualised. At one level there is the desire to provide credible qualifications through universalised modes of assessment, while at another level it is recognised that curriculum integration cannot be constrained by narrow, atomistic unit standards. The proposals lack clarity on the assessment strategies that could be employed to avoid the narrowness they reject. There is a need to engage with the notion of integrated assessment, which recognises that the integration of different forms of knowledge also requires the integration of different forms of assessment. A logical consequence of this notion is that if different forms of knowledge are integrated, then outcomes cannot be clearly defined for all areas of knowledge. This would then mean that in certain areas of knowledge, outcomes will be flexible or not enumerated at all.

The curriculum integration proposals are clearly governed by an industrial discourse. It is hoped that this will not lead to the marginalisation of critical and socio-cultural education. While the

documents perused all indicate a commitment to these forms of education, it is hoped that the imperatives of efficiency and cost-effectiveness will not lead to their neglect.

A pedagogic defensibility of the proposals cannot be offered in a definitive manner, because the proposals are at times so vague. Greater clarity is needed on how the proposed integration will manifest in concrete programmes. In contrast to the NCFET report, this clarity is what the 'Green Paper' avoids. There are many outstanding questions relating to what the mix would be between skills training, academic education and socio-cultural education. It is also not certain whether the integration of theory and practice will be limited to improve the labour-market skills of learners with a view to creating better technicians while avoiding the risk of creating critics. If one compares the documents on FET – starting with the 1995 DoE discussion document – one witnesses a gradual watering down of the emphasis on the need for critical education. One hopes that this is not an indication of things come.

Chapter 4: Local Case Study – Programme of the Skills Training for Employment Centre (STEC)

4.1 INTRODUCTION

This chapter will relate some of the dilemmas involved in operationalising the post-Fordist theories in curriculum practice. The case study selected in a sense represents a microcosm of the broader issues around the integration of knowledge and skills. The mixing of pedagogic modes as undertaken by STEC is in many ways a microcosmic sample of South Africa's educational thinking – where this thinking has come from and where it is going.

The organisation's history, and its moral and political commitment to social equity, have led it to adopt emancipatory curriculum practices. However, STEC does not operate independently of the broader social processes that propel it into the market discourse.

4.2 HISTORY

The history of STEC marks broader shifts in educational recontextualisation, from the discourse of education for transformation to that of education for employability. Progressive education NGOs such as STEC have committed themselves to emancipatory ideals of democratisation, empowerment, equity and redress, but they have not been able to escape the market-based imperatives that can ensure their continued survival. The STEC programme combines instrumentalist market objectives with emancipatory pedagogic practices. Section 4.2 traces the history of this shift, the broader societal power relations that have shaped these shifts, and how these shifts in turn have shaped curriculum practice.

The organisation was established in 1989 by the Bo-Kaap Youth Organisation, which sought to develop the capacities of young trade unionists. The focus of this capacity development was two-fold: firstly, it sought to develop the skills that would enable young activists to take up leadership positions in the progressive trade union movement; and secondly, it sought to provide

young activists with a second chance to obtain a school-leaving certificate in view of the educational disruptions caused by mass insurrections during the 1980s.

STEC followed the requirements for obtaining an International General Certificate of Secondary Education offered by the University of Cambridge Local Examinations Syndicate (UNCLES). The relevant O-level curriculum provided the space for critical academic education, and for the flexibility to develop the skills that would enhance participation and meet the criteria for leadership positions in the trade union movement. At the same time learners could obtain an internationally recognised school-leaving certificate. The status of the examining authority made it easier to obtain funding from international sources.

The shift to skills training in 1990 was prompted by a combination of factors, and coincided with certain discursive shifts in trade union educational policy. These policy shifts, which can be gleaned from proposals for worker education made by NUMSA (1992) and COSATU (see NEPI, 1992), show a softening on the transformationist agenda to incorporate human-capital objectives (Deals Trust, 1994; Samson & Vally, 1996).

A number of factors led to STEC's shift from emancipatory ideals to the market discourse. Many problems were experienced with the implementation of the O-levels curriculum. The disadvantaged educational background of learners meant that more resources had to go into remedial education, particularly in English language proficiency. Many students were active in trade unions and/or had jobs, which had a negative effect on attendance rates. The strenuous courses, combined with the disadvantaged educational backgrounds, resulted in low pass rates which had a negative influence on donor funding. It was difficult to sustain curriculum activity in the face of donor withdrawal and a shift of donor attention towards productive skills training.

Unemployed rural migrants were increasingly entering the fray and demanding employable skills. These people needed short, flexible courses that would have an immediate effect on their labour-market position.

All these factors led to a reorientation away from academic training towards employable skills acquisition. In 1990 the mission of STEC was redefined to equip learners with labour-market skills (STEC, 1996: 3).

4.3 CURRICULUM CONTENT

The STEC curriculum embodies a cluster of subjects geared towards preparing learners for entry-level positions in office administration. The subjects are connected to broader career-pathing in office administration, rather than to occupation-specific training. The outstanding feature of the programme is that different areas of knowledge and skills are taught in the context of a broad occupational category, i.e. office administration. Reading, writing, mathematics, socio-cultural education, problem-solving skills, technical training, interpersonal communication and organisational skills are integrated through broad vocational preparation. The organisation offers a one-year full-time programme composed of the following subjects:

- Bookkeeping and Basic Mathematics
- Computer Literacy (WordPerfect 5.1)
- English Communication
- Life Skills
- Office Practice
- Touch-typing
- Career Development
- Job Search Skills
- Work Experience
- Counselling and Personal Advice Services

Despite the absence of academic education in the programme, teachers do attempt to draw in aspects of general education and empowering socio-cultural education. The English teacher, for example, cited cases where a discussion on monetary currencies will involve map work and geography. These forms of integration are not structured into the curriculum, so the integration depends on how individual teachers perceive the pedagogic process.

The curriculum combines theoretical training with opportunities for the practical application of skills. Theoretical training mainly takes place through classroom tuition, while the practical application of skills takes the form of project work, site visits and learnerships at firms.

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Example

Bookkeeping learners had to visit a bank, preparation for which involved thematic teaching across the curriculum or subject boundaries. In English, learners had to acquire the communication skills that would build their confidence to access the required information at the bank. The English teacher also provided background knowledge on the bank's international contacts and transactions. This was supported by maps showing where these trading partners are located in the world. The Life Skills curriculum tackled the issues of corporate culture and confidence-building. The Accounting teacher prepared learners on the technical information to be extracted. Learners were also taken through a course on how to process the information on computer, analyse it and apply it to the situation at STEC.

Despite these attempts at curriculum integration, teachers still feel that a lot more can be done to integrate the entire curriculum and attain more coherence. For example, the spreadsheets done in Bookkeeping should form the basis for exercises in Typing. However, this would mean that individual teachers will have less autonomy in determining the content, sequencing and pacing of curriculum practice, since this would need to be done in consultation with other course facilitators. On the other hand, doing this would have the advantage of ensuring a greater degree of integration across the curriculum.

Subjects such as Life Skills, English, Career Development and Job Search Skills provide the basis for the integration of vocational training with aspects of general education. A common purpose of these courses is to enable learners to interact with the broader social context. Of all these course, Life Skills training features as the most important integration mechanism. The Life Skills facilitator provides a list of topics or knowledge areas as a course outline, and this can be re-negotiated to include the areas that the learners find most important. The programme harnesses and promotes problem-solving skills, communication skills, creative expression and cultural reflection to build self-esteem.

Examples

a)   *Reflection*: Learners are asked to create a collage of themselves. On the outside of the envelope they combine those things which they wish to share with others, and inside the

envelope they combine what they do not wish to share. This provides an opportunity for creative expression and self-reflection. In addition to activities of this nature, learners enter observations and judgements of curriculum activity in 'reflection journals'.

b) *Problem-solving*: Learners write down issues that are important to them. They must then prioritise those issues and establish which ones they have control over and which ones they do not have control over, and further, which problems they can solve alone and which ones they may require the group's assistance to solve. This provides opportunities for defining, analysing strategising and prioritising problems. It also promotes team work, willingness to listen to different points of view, tolerance of differences and the linking of personal problems to workplace and social problems.

Other curriculum activities include promoting critical thought, broadening horizons and over-coming the fear of failure through painting and drawing. The Life Skills course also provides opportunities for exploring political, social and cultural issues. Posters on the Bill of Rights in the Constitution, AIDS, reproductive health and other social issues cover the classroom walls. These issues are important in locating the cultural displacement that learners face as new urban migrants, and they also promote critical reflection on the learner's own culture. Learners and teachers experience an appreciation for the multicultural environment in which they live, and reflect on their own practices which are punctuated by race, class, gender, sexual and linguistic differences. Because the programme is not tied to examinations, learning is open-ended and curriculum content is constantly reviewed.

Job-search skills form part of a group of skills pertaining to labour-market education. The Job Search Skills course seeks to promote verbal and written communication skills, awareness of the cultural environment in which skills are applied, and the ability to access labour-market information.

4.4 THE PEDAGOGIC MODE

STEC tries to combine therapeutic modes – where the teacher is seen as a facilitator rather than as a transmitter of knowledge. Learners are constructed as self-directed, creative, active and reflective individuals. In all subjects there is a tendency towards co-operative and integrated

learning through workshops, group discussions, peer-teaching, role-play, reflection journals, site visits and other outings.

In the case of more technical courses, e.g. computer literacy, the role of the pedagogue is more directive and instructional. Due to insufficient equipment learners are forced to share, and peer teaching is a natural outcome of sharing in the sense that those who acquire knowledge and skills faster help others. The teacher is assisted by a tutor, who provides individual assistance as learning progresses. The need to prepare learners for the examinations creates a tension between what learners want to explore and what the examinations require. The problem is resolved through compromise and allowing the freedom to explore, e.g. computer literacy, outside set hours.

New cohorts of learners initially show resistance to learner-centred methodologies, because they challenge the familiar teacher-centred approaches to learning to which they have become accustomed. In two subjects teachers noted that learners wanted more visible and prescriptive methods of learning. In one situation they accused the teacher of 'laziness' and insisted that the teacher should make framing choices with regard to the sequencing and pacing of the curriculum activities. They interpreted the lack of positional control as a lack of authority on the part of the teacher. This discomfort with invisible pedagogy stems from the authoritarian learning environment at schools, where the will of the teacher is often asserted by means of corporal punishment.

> One day I came into the room and took off my jacket because it was very hot. Suddenly there was silence and a shocked expression on the faces of the students. When I enquired about this, they said that they thought I was going to give them a hiding. They said that normally when a teacher takes off his jacket it is a signal that he is preparing to hit his students. (Francois – STEC English teacher)

The indications are that learners will only become self-directed once they have been reoriented away from the prescriptive and oppressive pedagogic modes of learning in primary and high school. After a period of time learners do come to appreciate the learner-centred approach as empowering. A former student who now works at STEC summed this up as follows:

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> In the past we were spoon-fed; now you are taught to do things yourself. I cannot rely on others to do it for me. Now I feel confident that I can do it. (Dumisani from Queenstown)

Pedagogy of Difference

Postmodernists oppose the homogenising effect of outcomes-based curricula. The question is, does the pedagogy of difference empower, or does it reinforce marginalisation? Does a pedagogic approach which recognises difference promote or obstruct equity? The majority of STEC learners are women and Xhosa-speaking rural migrants, and both groups have been marginalised in many different ways. These groups resist any attempts of pedagogues to differentiate between them and other groups on the basis of their marginalised status, and insist on being subject to the same pedagogic approach and curriculum content as other groups. They view a differentiated approach to teaching and learning as discriminatory and as an attempt to exclude marginalised groups from obtaining forms of knowledge associated with social power.

There is a strong desire among learners at STEC to subscribe to the discourses that will lead to employment and the ability to handle the world of work. Many STEC learners are encountering their first physical contact with computers and instruments of high-tech culture, and their hunger for learning to use the machines is noticeable. The computer room is never empty; the learners use their free periods and lunch breaks to improve their computer literacy skills, as most of them have little opportunity to do so outside the STEC environment.

The STEC learners have rejected as discriminatory all attempts to stream them in recognition of their diverse capabilities, and all attempts to introduce differentiated approaches to learning. When teachers attempted to devise different programmes for learners with different educational backgrounds, the learners resisted, arguing that they all pay the same fees and should therefore all receive the same tuition.

Cultural and linguistic differences are acknowledged, and learners are proud to display their own cultural capital when occasions for this arise. The writer witnessed such displays on the occasion of the inauguration of STEC's new premises, which culminated in a colourful song and dance presentation. But cultural and linguistic differences do not seem to provide a sufficient basis for promoting differentiated approaches to classroom learning. Although differences in terms of cultural practices, linguistic codes and access to technology are recognised, the learners do not want these differences to be translated into a differential acquisition of hegemonic repertoire. Language difficulties and non-exposure to high-tech culture are viewed as deficits resulting from past exclusion – deficits which the learners desperately want to overcome to improve their own life chances.

4.5 LEARNERSHIPS

Work-based learning is aimed at integrating theory and practice, and at exposing learners to the context in which skills will be applied. Learners enter the workplace twice per year – during the June and September vacations. STEC's tracking and placement co-ordinator organises the June learnership programme, and the learners must arrange for their own September learnerships. A host of organisations – ranging from large corporations to NGOs – participate in the programme.

Shadow-learning takes place under the guidance of mentors, who submit an evaluation report to STEC at the end of the learnership. The learnership tasks differ from one organisation to the next, and learners often have to adapt to programmes that do not feature in the STEC agenda. The work experience gained is fed back into the classroom when learners request further tuition in areas that do not form part of the STEC curriculum. This often gives rise to a tension in terms of time constraints – where teachers must prepare learners for the Pitman's examinations and simultaneously create space in the curriculum for learners to pursue their own interests.

STEC learners and teachers view the learnership programme in a positive light on the whole, despite the following problems: Firstly, the programme is difficult to sustain in the absence of an institutional framework that compels businesses to accept learnerships as one of their social responsibilities. Secondly, employers are reluctant to enter into contractual agreements with learners (which would regulate the rights and responsibilities of either party), fearing that this

will commit them to long-term obligations towards learners. Thirdly, the financially challenging circumstances of most learners means that they often cannot cover the additional expenses associated with learnerships, such as transport costs, and employers are reluctant to pay these. Fourthly, some learners have experienced hostility from their mentors, who ostensibly regard the learners as potential competition in a tight labour market.

4.6 ASSESSMENT

The biggest problem with the outcomes-based learning programme experienced by STEC staff is the assessment of competencies. Teachers follow the formal routes of evaluating performance through tests and examinations, but they feel that this cannot capture the developmental process that learners go through during their stay at STEC.

> How do you measure the personal development which has taken place when people flower from scared, rural people who lack self-confidence, to confident individuals. I can see the difference in the photographs we took at the beginning of the year. What credit is given to this broad development? (Vanessa – STEC Acting Director)

The STEC programme is dependent on donors who use placement in industry after training as the benchmark for continued funding. This marketisation places pressure on the organisation in that to ensure its continued survival it must provide market-related skills training that will ensure the best possible absorption of graduates into a structurally depressed labour market. Although businesses do not have a direct influence on curriculum content, their control over resources places them in a powerful position that ensures an instrumentalist agenda.

This funding concern demands the adoption of assessment criteria that accord with the interests of industry. STEC staff members find this problematic from a pedagogic point of view, but they recognise the power of industry to determine the organisation's continued existence or demise. This assessment dilemma reflects the tensions that arise in combining competency-led and performance-led pedagogic modes.

The emancipatory curriculum practices are constrained by the prescriptive outcomes of the market and examining authorities. A committee was established to devise a new assessment

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model that will capture the total developmental process generated through education and training. The idea is to develop a portfolio assessment strategy that combines peer assessment, family assessment, community assessment and work-based assessment, and to integrate these forms of assessment through project work. The details on how this will work in practice are not yet available.

The crucial issues around which the mix-mode model reveals its most serious inconsistencies are thrown up in the case study. One of these issues pertains to balancing universalised learning outcomes with individual capacities, local contexts and diverse learning biographies. Another pertains to modes of assessment that can do justice to the host of changes learning programmes engendered. The construction of active, creative and self-directed learners is often at odds with the learners' past pedagogic experiences.

The pedagogue's role is placed under constant review. On the one hand, empowering modes of knowledge acquisition require the 'invisible' pedagogue who facilitates discovery. On the other hand, the pressure to prepare learners for examinations requires a more prescriptive pedagogue.

While STEC staff members recognise the drawbacks of the marketisation of education, they made no suggestions about education for societal transformation. Both teachers and learners seemed reluctant to discuss questions of political transformation. This could mean that such transformation does not feature as prominently now as it did in the past in the light of South Africa's transition to political democracy, or it could mean that they were simply not willing to discuss such matters with an outsider. It was clearly revealed that STEC focuses on self-realisation and redressing the educational deficits of the past.

The factors that led to the STEC shift from critical academic education to skills training mark a pragmatism that recognises the structuring effects of broader societal power relations on curriculum development. The initial academic training objectives embodied clear political transformational features. The very practical matter of material survival for both STEC and its has forced shifts towards market imperatives. While still hanging on to the emancipatory ideals of empowerment, equity and redress, these ideals find expression in STEC through learner-centred modes of transmission and acquisition, but they are not articulated through normative statements on the kind of society that STEC hopes to help create through its programme.

Despite the ambiguity around the normative questions of the kind of society that should emerge, the STEC programme for curriculum integration seeks to promote critical and problem-solving skills that lie beyond immediate instrumentalist objectives. Beyond the imperatives of employability, curriculum content and learner-centred methodologies, the programme seeks to link learner purpose with broader socio-cultural education.

The STEC experience has certain implications for integrated curricula. In the first instance it demonstrates that curriculum integration involves the integration of different types of knowledge and skills. Then, it demonstrates that the different types of knowledge and skills can be acquired through different and often contradictory pedagogic modes. The STEC pedagogues apply a combination of therapeutic learner-centred methodologies and explicit instructional modes of knowledge transmission.

In trying to integrate curriculum, and by extension different types of knowledge, it may be necessary to move between pedagogic modes or switch from one mode to another. This of course makes the validity Bernstein's typology questionable. While the typology for competence and perfor-mance modes may be useful for making analytical distinctions, it does revert back to the dualistic thinking and sets boundaries on what is possible. The integration of different types of knowledge and skills therefore implies the integration of different pedagogic modes.

In the light of the many questions STEC staff have in relation to assessment, it is difficult to conceive of an integrated curriculum that does not take cognisance of the fact that different forms of knowledge may require different forms of assessment, and that in some cases there will be no assessment at all. It therefore makes sense to introduce different forms of assessment.

Chapter 5: Conclusions

Chapter 1 concluded with set of guidelines that could make curriculum integration pedagogically defensible. These guidelines were developed on purely pedagogic grounds without consideration given to the social and political context in which education is being provided. Through the discussion it became apparent that the process of curriculum development and design cannot be abstracted from the social conditions accompanying their construction. It therefore becomes necessary to engage with the social and political issues that impact on curriculum development and design. In the case of South Africa, the dominant issues are the questions of social equity and global economic competitiveness.

South Africa's proposed model for curriculum integration in FET combines conflicting social projects, contradictory philosophical and epistemological understandings of knowledge, and contradictory modes of knowledge distribution. This may well account for the model's lack of conceptual clarity. Despite all this, the concept of curriculum integration is both pedagogically and politically attractive. The integration of different types of knowledge can simultaneously appease different vested interests. The post-Fordist pragmatism allows for a technology of governance that combines and considers conflicting group interests. The different class interests that led to the adoption of the generic skills model were discussed in Chapter 3.

Although this technology of governance to a certain extent reveals mediated group and class interests, it conceals the unequal nature of the power relationship. The stakeholder model for curriculum design and practice conceals the fact that some stakeholders are more powerful than others. The interest of the market is so powerful that ultimately it sets the parameters for curriculum design and practice. The STEC example demonstrates that the political and moral commitment to emancipatory curriculum practice is severely constrained by market forces.

The difference between post-Fordist pragmatism and the pragmatism of Dewey is that the former rejects any foundationalist assumptions about the social transformational aspects of knowledge construction. Instead, post-Fordism sees curriculum knowledge and skills as tools for adaptation to the social system. Human-capital concerns seem to take precedence over the

issue of social equity. The Australian case study expounded in Chapter 2 indicates that the generic competency model has the propensity to become an instrumentalist industrial agenda, preoccupied with the dictates of the market. This is a departure from Dewey's belief that education directed at earning a living should not take the present industrial regime as its starting point, but should combine earning a living with critical socio-cultural education. A fundamental logical inconsistency in the philosophy of pragmatism is that it remains unclear to what extent knowledge should and can transform existing social arrangements, or to what extent it socialises learners into them.

Pedagogically, pragmatism has resulted in an epistemological conflation of competing pedagogic modes. Bernstein's distinction between the performance and competency modes provides a language to describe this epistemological conflation. Chapter 2 explores the paradoxes inherent in combining contradictory pedagogic modes, in terms of how knowledge and pedagogic subjects are constructed, and how the role of the pedagogue is constructed. The implications of these contradictions for pedagogic practice have not yet been fully explored.

Curriculum integration is pedagogically attractive in as far as it provides the conceptual premise for holistic development and promises to discontinue the fragmentation of knowledge. The themes around how curriculum integration can serve its instrumentalist social and economic objectives and at the same time be pedagogically defensible have yet to be explored.

The integration of different fields and types of knowledge is significant in terms of dissolving boundaries between academic disciplines. However, the Australian example demonstrates that the instrumentalist imperatives of generic skills models can result in a very partial definition of knowledge. The exclusion of knowledge on the basis that it is not amenable to assessment is pedagogically defensible.

The epistemological question of what knowledge is cannot be left to technocrats to answer; it is as much a political question as it is a pedagogic one. While one cannot abstract the selection of curriculum knowledge from social power relations, one can ensure that a framework for the inclusion of different types of knowledge forms part of the curriculum, irrespective of whether or not the knowledge is amenable to assessment. This means that a curriculum cannot be tied

down by rigid outcomes. It also means that curriculum development and design has to be an interactive process between different stakeholders. The South African curriculum design process has attempted to achieve such interaction, but the stakeholders have been highly centralised social institutions, which leaves little space for localised agendas. It would therefore make sense to decentralise the curriculum development process.

Young's connective-outcomes approach signals a possible direction. It combines hegemonic economic interests with individual and localised agendas, and since connective outcomes are context-bound, they link universality and particularity. This approach can also facilitate different configurations of vocational and academic knowledge. Connective outcomes are not regarded as lists of prescriptions, but rather, they are seen as a guide in the effort to fulfil multiple group and class interests. Due to its focus on context, this approach can give the pedagogue and the learner more autonomy in determining curriculum content, framing and assessment.

The problems that can be foreseen with the connective-outcomes approach concern how it relates to universalised assessment standards. Young proposes assessment methods based on what learners can realistically be expected to know, given the particular context of knowledge acquisition. Connective outcomes can bring about the flexibility which recognises that learning is context-bound. What still needs be acknowledged is that not all learning can be expressed in terms of predetermined outcomes, and also that some aspects of curriculum knowledge would not be articulated through outcomes, but rather through process. This could present a problem to educational bureaucracies concerned with unified instruments for quality assurance. An important aspect of the connective-outcomes approach is that curricula cannot be developed solely through centralised curriculum development structures. Localised structures along stake-holder lines would have to evolve to make curricula relevant to local contexts.

At STEC, the selection, framing, transmission and assessment of curriculum knowledge throw up some of these contradictions. At certain stages curriculum knowledge that learners want to acquire is in conflict with the learning outcomes of set syllabi. Conflict also arises in relation to the role of the pedagogue. Learner-centred methodologies build on the invisible pedagogue who facilitates discovery. With predetermined outcomes the role of the pedagogue becomes more prescriptive and the mode of knowledge transmission more instructional. The STEC

experience also indicates that both learners and teachers have to be socialised into a new culture of learning and teaching to appreciate the benefits of learner-centred education.

In the South African proposals there are many references to learner-centred education, but little detail is provided on what this may mean in the FET context. There is a danger that neo-liberal economic policies and structural adjustment programmes could render learner-centredness a veil for the state dodging its responsibility for education, or otherwise off-loading some of that responsibility onto learners. References to self-directed learning, and flexibility in selecting and pacing learning options and in choosing between face-to-face or distance learning, are all tied in with learner-centredness. It may be cynical to suspect that all this may point to fiscal considerations overshadowing pedagogic ones, particularly in view of the fact that learner-centred methodologies of competency modes involve greater transmission costs: less can be prepackaged to utilise economies of scale, the cost of training pedagogues is higher, and more resources will go into compiling learning materials.

The STEC example shows that although one should be cognisant of localised differences and individual capacities, learners themselves want access to the hegemonic discourses associated with social power. Anything else is seen as exclusionary. Given the history of fragmentation and exclusion along racial lines in South Africa, one would have to ensure that localised agendas do not promote the further 'ghettoisation' of knowledge for marginalised groups. Connective outcomes seem to strike a balance between the local and the universal because such outcomes are not over-specified.

The recognition of diversity should similarly not lead to the further marginalisation of disad-vantaged groups. Although there should be a recognition of non-hierarchical difference, this does not provide the basis for *a priori* assumptions about the need for differential modes of knowledge acquisition. The STEC case study indicates that learners from disadvantaged back-grounds want *un*differentiated access to hegemonic discourses, in which case the pedagogy of difference should not be imposed on them. As noted in Chapter 2, Green points to the danger that the focus on heterogeneity could lead to neo-liberal free-market consumerism where access to information and finances becomes the basis for further exclusion.

South Africa should guard against the pedagogy of difference becoming a subterfuge for the perpetuation of minority privilege. Green's proposed common curriculum that adheres to

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multiculturalism and plurality is an expression of unity in diversity and of the recognition of difference, which promotes equity. It also overcomes the problem of a plethora of curricula that will exacerbate existing ethnic and racial divides.

The integration of academic and vocational education, or of theory and practice, should not be limited to the effective performance of a particular task or occupation, but should include socio-cultural education that will assist learners to interact critically with their social environment. The German example for curriculum integration as expounded in Chapter 2 shows that the combination of vocational training with aspects of general education is possible. This combination is partially determined by centralised curriculum structures, but there is space for local specificity and teacher involvement. In fact, most of the general education curriculum is left to the professional judgement of the teacher, and this is possible because there is no unified system of assessment for the general education aspects of curricula.

The greater influence of the pedagogue in curriculum development and design presupposes the presence of well-trained teachers who are able to use their professional judgement to develop curricula that simultaneously satisfy learners' individual aspirations and universalised objectives. Such curricula would include assessment strategies that differentiate between the capacities of learners given their differentiated social contexts. In South Africa, traditional forms of teacher training thus far have not equipped teachers to utilise the space that may be created for them to influence curriculum content and practice. In the educational reconstruction process it will therefore be necessary to establish an infrastructure for the in-service retraining of teachers.

As already noted, credible and reliable forms of assessment have eluded the various outcomes-based education models. In examining the different configurations of knowledge and skills that these models seek to combine, it becomes clear that assessment cannot take just one form. Methods for integrating multiple assessment strategies would have to be developed if curricula do incorporate combined configurations of knowledge and skills.

As discussed in Chapter 2, Hager and Becket attempt to bring holism into assessment by arguing for integrated forms of assessment that link individual practices to socio-cultural phenomena. They emphasise the need to link the practitioner's attributes to situatedness. STEC provides

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an example of how this can be done in practice. In addition to traditional modes of assessment (e.g. tests and project work) which evaluate the acquisition of certain bodies of knowledge and skills, the organisation also proposes forms of work-based, community-based, peer and self-assessment. This approach to assessment would lend credit to the overall developmental process that education ought to promote.

Two important implications of the integration of different types of knowledge is that some forms of knowledge acquisition cannot be measured within specified time frames, and some forms are simply not quantifiable or measurable at all. Thus the acceptance of this integration proposition requires a mind-shift away from recognising only formalised forms of assessment.

The final conclusion of this paper is that a pragmatic synthesis of different pedagogic modes is possible if curriculum outcomes are not rigidly predetermined, but rather provide the space for differentiation between various socio-cultural contexts. If a curriculum is linked to particular socio-economic objectives, it will not shake off its instrumentalism, but this does not preclude the inclusion of critical academic and socio-cultural education that promotes holistic develop-ment. This holism should cross the epistemological boundaries that exist between the cognitive, affective and psychomotor. The different knowledge and skill configurations that such prag-matism combines requires switching between different pedagogic approaches and assessment modes so that curricula will be credible and pedagogically defensible.

Bibliography

Abrahamson, K. (1991). 'Recurrent Education and the Labour Market: Changing Conceptions within Swedish Post-Compulsory Education.' In Forrester, K. & K. Ward (eds), *Unemployment, Education and Training*. Sacramento: Caddo Gap Press.

African National Congress (1995). *Policy Framework for Education and Training*. Manzini: Macmillan.

Archer, S. (1995). *Quality and Efficiency Indicators in Education: A Survey*. Johannesburg: Edupol National Business Initiative.

Arnold, R. & H. Mueller (1996). 'Berufsbilding: Betriebliche Berufsausbilding, Berufliche Schulen, Weiterbilding'. In Kroeger, H. & T. Rauschenbach (eds), *Einfuehrung in die Arbeitsfelder der Erziehungswissenschaft*. Opladen: Leske & Budrich.

Aronowitz, S. & H. Giroux (1992). *Postmodern Education: Politics, Culture and Social Criticism*. Minneapolis: University of Minnesota Press.

Australian Education Council (1992). 'Key Competencies: Draft Proposals'. Sydney.

Bernstein, B. (1996). *Pedagogy, Symbolic Control and Identity: Theory, Research, Critique*. London: Taylor & Francis.

Chisholm,L. et al. (1996) *Out of School Youth Report* : Johannesburg: University Of Witwatersrand Education Policy Unit

Chisholm, L. et al. (1997). 'Youth Policies, Programmes and Priorities in South Africa: 1990-1995'. In *International Journal for Educational Development*, Vol. 17, No. 2.

Cornbleth, C. (1990). *Curriculum in Context*. London: The Falmer Press.

Halliday, J. (1996). 'Empiricism in vocational education and training'. In *Educational Philosophy and Theory*, Vol. 1, No. 28.

Harvey, D. (1992). *The Condition of Postmodernity*. Massachusettes: Blackwell.

Henry, M. & S. Taylor (1994). 'Equity and the new post-compulsory education and training policies in Australia: A progressive or regressive agenda?' In *Journal for Education Policy*, Vol. 9, No. 2.

Human Sciences Research Council (1995). *Ways of Seeing the National Qualifications Framework*. Pretoria: HSRC.

Hyland, T. (1994). *National Competence, Education and Vocational Qualifications: Dissenting Perspectives*. London: Cassell.

Inskip, C. & P. Spargo (1997). 'Indications from Germany Regarding the Appropriate Place and Provision of Vocational Education and Training within the Educational Realm – Including Comparisons with South Africa'. Kenton Conference Paper.

Jansen, J. (1997). *Why OBE Will Fail*. Pietermaritzburg: University of Durban-Westville.

Kappler, A. et al. (1996). *Facts About Germany*. Frankfurt: Societaets.

Kelly, A. (1989). *The Curriculum: Theory and Practice*. London: Paul Chapman.

Kenway, J. et al. (1994). 'New education in new time'. In *Journal for Education Policy*, Vol. 9, No. 4.

Kraak, A. (1993). 'Human Resources Development and Organised Labour'. In Moss, G. & I. Obery (eds), *South African Review*, No. 6. Johannesburg: Ravan Press.

Kraak, A. (1996). *Two Training Paradigms: Free or Co-ordinated Markets?* Belville:

University of the Western Cape.

Landesman, C. (1997). *Introduction to Epistemology*. Massachusetts: Blackwell Publishers.

Luckett, K. (1995). 'An investigation into some curriculum development issues'. Pietermaritzburg: Centre for University Education Development, University of Natal.

Middleton,J.(1991) Skills Training for Productivity: Vocational Education and Training in Developing Countries: Washington DC : World Bank

Mosdell, T. (1997). 'The Development of a competitive environment in Further Education and Training: Lessons for South Africa from England and Australia'. Kenton Conference Paper.

Muller, J. (1996). *A harmonised qualifications framework and the well-tempered learner: pedagogic models, teacher education and the National Qualifications Framework.* Cape Town: University of Cape Town.

National Union of Metalworkers of South Africa (1992). *NUMSA's vision regarding education and training in the engineering industry.*

NEPI (1992). 'COSATU's Approach to Adult Basic Education'. Pamphlet.

NEPI (1992). *Adult Basic Education: National Education Policy Investigation.* Cape Town: Oxford University Press.

Novack, G. (1975). *Pragmatism versus Marxism: An appraisal of John Dewey's philosophy.* New York: Pathfinder Press.

Orstein, A. & F. Hunkins (1993). *Curriculum Foundations, Principles, and Theory.* Boston: Allyn and Bacon.

Ozman, H & M. Craver (1981) *Philosophical Foundations of Education.* Ohio: Charles Merrill Publishing.

Peters, M. (1996). 'Habermas, Poststructuralism and the question of Postmodernity'. In Peters et al., *Critical Theory and Social Context*. Palmerston North (New Zealand): The Dunmore Press Ltd.

Porter, P. et al. (1992). 'Competencies for a clever country: Building a house of cards?'. In *Unicorn*, Vol. 18, No. 3.

Raffe, D. (1994). 'Modular strategies for overcoming academic/vocational divisions: Issues arising from the Scottish experience'. In *Journal for Education Policy*, Vol. 9, No. 2.

Republic of South Africa (1994). 'White Paper on Education and Training'. In *Government Gazette*, 353 (16085).

Republic of South Africa (1995). 'Curriculum Framework for Further Education and Training'. Discussion Document. Pretoria: Department of Education.

Republic of South Africa (1996). *Restructuring of the South African Labour Market: Report of the Presidential Commission to Investigate Labour Market Policy* (RP 83/1996). Pretoria: Government Printers.

Republic of South Africa (1996). 'Employment and Occupational Equity: Policy Proposal'. In *Government Gazette*, 373 (17303).

Republic of South Africa (1997). 'Skills Development Bill'. In *Government Gazette*, 386 (18244).

Republic of South Africa (1997). *School Register of Needs Survey*. Pretoria: Department of Education.

Republic of South Africa (1998). 'Green Paper on Further Education and Training'. Pretoria: Department of Education.

Samson, M. & S. Vally (1996). 'Snakes and Ladders: Promises and potential pitfalls of the National Qualifications Framework. In *South African Labour Bulletin*, Vol. 20, No. 4.

Scroeter, G. (1995). 'A Training System for Export?: The German Dual Vocational Training System and its Transferability'. In *International Journal of Vocational Education and Training*, Vol. 3, No. 2.

Seidman, S. (1992). 'Postmodern Social Theory as Narrative with a Moral Intent'. In Seidman, S. & G. Wagner (eds), *Postmodernism and Social Theory*. Massachusetts: Blackwell Publishers.

Seidman, S. & G. Wagner (eds) (1992). *Introduction to Postmodernism and Social Theory*. Massachusetts: Blackwell Publishers.

Slatterly, P. (1995). *Curriculum Development in the Post Modern Era*. New York & London: Garland Publishing, Inc.

Stanley, W. (1992). *Curriculum for Utopia: Social Reconstruction and Critical Pedagogy in the Postmodern Era*. Albany: State University of New York Press.

Skills Training for Employment Centre (1996). 'Policy Document'. Salt River, Cape Town: STEC.

Skills Training for Employment Centre (1996). 'Information Pamphlet'. Salt River, Cape Town: STEC.

Tanner, D. & L. (1995). *Curriculum Development: Theory into Practice*. New Jersey: Prentice Hall.

Tubbs, N. (1996). 'Becoming critical of the critical theory of education'. In *Educational Philosophy and Theory*, Vol. 28, No. 2.

Usher, R. & R. Edwards (1994). *Postmodernism and Education*. London: Routledge.

Westwood, S. (1991). 'Constructing a postmodern agenda for adult education'. In Westwood, S. & J. Thomas (eds), *The Politics of Adult Education*. Leicester: National Institute of Adult and Continuing Education.

World Bank (1990). *Education and Development: Evidence for New Priorities*. Washington DC: World Bank.

World Bank (1996). 'Skills for Development'. In Hinzen, H. (ed.), *Adult Education and Development*, 46/1996.

Yates, C. (1996). 'The Poverty of Competence: Against the Imperialism of Instrumental Education'. In *Open Learning (SAIDE)*, Vol. 2, No. 2.

Young, M. (1993). 'Qualifications for a High Skill Future: Lessons from the UK'. In *Education with Production*, Vol. 10, No. 1.

Young, M. (1995). 'Modularization and the outcomes approach: Towards a strategy for a curriculum of the future'. In Burke, J. (ed.), *Outcomes, Learning and the Curriculum: Implications for the NVQs, GNVQs and other qualifications*. London: The Falmer Press.

Young, M. (1996). 'The outcomes approach to education and training: Theoretical grounding and an international perspective'. Conference paper.