

**Skills? What Skills? Jobs? What Jobs?**

**AN OVERVIEW OF STUDIES EXAMINING  
RELATIONSHIPS BETWEEN EDUCATION AND TRAINING  
AND LABOUR MARKETS**

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**Authors: Stephanie Allais and Oliver Nathan**

**Institution: Wits Education Policy Unit**

**Email: [matseleng.allais@wits.ac.za](mailto:matseleng.allais@wits.ac.za); [oliver.natha@wits.ac.za](mailto:oliver.natha@wits.ac.za)**

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## **ABSTRACT**

This paper seeks to provide a discussion of South African and International literature concerning transitions (pathways) studies as well as the state of theory and analysis used in understanding the evolving relationship between education and work. Much of the South African and International research makes use of longitudinal or panel survey research designs which trace the school-to-work pathways of a youth cohorts over a period of a few years, examining individual decision-making in educational choices. While in this literature, broader socio-economic structures are considered as possible obstacles to successful transitions, structural constraints are underexamined. In this paper, we briefly explore some theories that attempt to explain relationships between education and the labour market, including human capital theory, education as a positional good, education as a proxy for trainability, education as legitimized means for social inclusion and exclusion, and more recently, the idea of the global auction, as well as the idea of the educational transformation of work. This is followed by an overview of some of the international literature which points to the structure of the labour market as a major determinant of the quality of vocational and professional education, as well as literature which examines the relationship between broader social policy and levels of general and specific skills. These are all areas which are not well researched in South Africa, and we suggest key areas for research interventions.

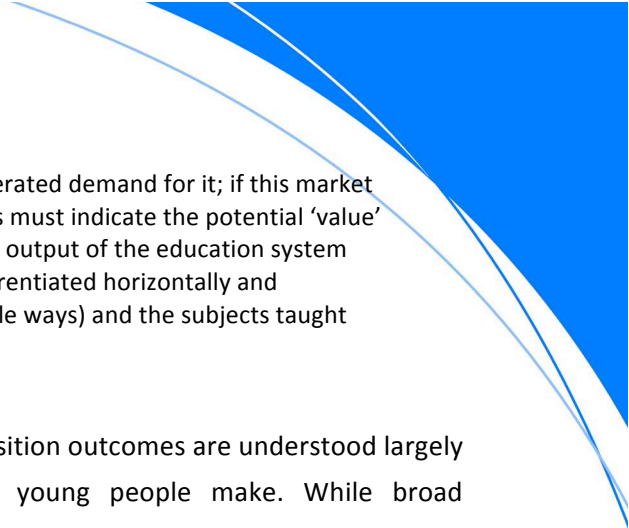
## **INTRODUCTION: TRANSITIONING FROM EDUCATION TO THE LABOUR MARKET**

The relationship between education and the economy is of ongoing concern around the world. In South Africa, both our education system and our economy have particular problems, largely originating in the apartheid system. On the one hand, we have exceptionally high levels of unemployment, and serious structural problems in our economy. On the other hand, millions of young people leave the school system with inadequate education, and we have very little provision of education and training outside of the school and university systems. A skills shortage is widely regarded as a major contributor to South Africa's high unemployment levels. In some quarters an allegedly inflexible labour market is also blamed, and it is sometimes seen as a paradox that South Africa can have both a skills shortage and high levels of unemployment. Young people's transitions from school to work, or from post-school education and training to the labour market, is often marred by a manifest inability to attain a well-paying job, or, in many cases, any employment at all in the context of pervasive structural unemployment in South Africa. More broadly, the South African economy has experienced what has commonly been referred to as 'jobless growth' with capital, rather than labour-intensive forms of economic growth being the order of the day. This is coupled with a prevalent argument from employers that they cannot find people with the 'right skills'. Policy makers and researchers question the suitability of school subjects and 'traditional' disciplinary bases for curricula in school, and even more so in colleges, where new courses and programmes often are developed in the absence of a traditional disciplinary base. There is considerable debate about the attempts to introduce outcomes-based, learner-centred, and skills-based curricula.

The nature of different education programmes and pathways is widely believed to have a substantial impact on occupational outcomes, including the kinds of jobs people can get, and what their earning potentials are, but the reasons for this, and mechanisms at play, are not always well understood. Despite this lack of understanding, attaining ever-higher levels of education is widely believed to be essential for economic growth, and the idea of a 'knowledge economy' is frequently invoked, sometimes as an ideal to which we should aspire, and sometimes as an imminent reality. However, in many countries education provision has become relatively more equal, but income distribution has become more and more disparate. In others rapid growth in education has not led to equivalent growth in the economy.

An assumption behind much policy discourse is that different parts of the education system should function as institutional arrangements for youth transitions to the labour market. Another assumption is that an ideal labour market would be based on

a relationship between education and the economy in which the wage nexus determined the long term supply and demand for labour, so the education system would be responsible for



generating the supply of labour to an economy which generated demand for it; if this market operates like a commodity market, educational credentials must indicate the potential 'value' of individual labourers to employers. At the same time the output of the education system would mirror the divisions of labour (which would be differentiated horizontally and hierarchically in the most technically efficient and profitable ways) and the subjects taught would serve the needs of the economy.  
(Dale et al., 1990, p. 70)

In much of the South African literature on transitions, the transition outcomes are understood largely in the context of the individual education choices that young people make. While broad socioeconomic issues and structural constraints to successful transitions are considered (to varying degrees), these are not explicitly linked to the overall explanatory models developed to understand why so many transitions are unsuccessful. This paper argues, to the contrary, that while individual educational choices, values, and perceptions around education and training are important, a broad analysis of the social and economic structures that frame and constrain transitions must be taken as the point of departure for research on the links between education and employment.

This paper explores some of the complexities with regard to the transition from education and training into the labour market. It starts by examining the state of transitions research in South Africa, giving a brief overview of the findings of this research and a critique of the methodologies and theoretical underpinnings of using longitudinal and panel survey research designs as the sole means to attaining useful data on transitions in different countries, as well as interventions to support it. This is followed by examining literature in other countries, which looks more broadly at the state of transitions research, in particular assessing the theoretical underpinnings and analytical frameworks put to work in transition studies research design. This leads to a consideration of some of the complexities involved in understanding this relationship, and understanding the relationships between education systems and economies. Brief consideration is given to different theoretical frameworks which attempt to account for this relationship. We suggest that an analysis of the broader social and economic structures must come before an analysis of transitions, or of transition systems as a whole. This has substantial analytical and prescriptive implications for transitions research in South Africa.

## **TRANSITION STUDIES**

One way to attempt to understand the relationship between education and jobs is through what has been called 'transition studies'. Such studies attempt to describe the 'connection between an educational programme and its destinations, mediated by a set of institutional arrangements that include qualification systems, curriculum content, labour market arrangements and information and advice systems' (Sweet 2001); in other words, the pathways. It is crucial to note that 'transitions' or 'pathways' should not be taken to mean solely school-to-work transitions, nor post-school education-to-work transitions. Rather, transition studies encapsulate myriad education-to-work transitions as well as so-called 'micro transitions' between unemployment and employment; self-

employment and employment; full time work and part time work, and permanent work and casual work.

## **THE SOUTH AFRICAN LITERATURE**

Longitudinal studies and panel surveys in South African transitions studies, although limited in number, have provided insight into the patterns of enrolment, throughput, completion, transition to the workplace and basic assessments of labour market outcomes.

A graduate tracer study performed by Cosser (2003) for the HSRC traced the transition of FET college graduates between 1999 and 2001. The tracer study consisted of three principle research thrusts. The first thrust of the research briefly profiled 3503 respondents in terms of their biographies, showing variables such as province, population group, gender, age, and parental/guardian education levels. The second thrust extended this profile to a consideration of respondents' college education and employment status, focusing in the first part on the qualifications of graduates, including the fields in which they achieved their college certificates, and in the second juxtaposing these with their current employment situations and their employment experience between 1999 and late 2001. The third research thrust considered so-called 'quasi-behavioural' evidence regarding respondents' experience of their college education: language of learning; the provision of career guidance; work experience during college studies; and first employment experiences. In addition, an analysis of respondents' attitudes regarding their college education was performed.

Cosser (2003) found that only 34% of FET college graduates reported being either employed or self-employed, whether full-time or part-time after graduation (i.e. from 1999 to 2001). By 2001, 35% of the sample was found to engage in further studies. A staggering 31% of the sample was unemployed or economically inactive for other reasons. While for Cosser (2003), the overall picture of student labour market placement remains negative, he argues that this needs to be placed in the context of both massive South African youth unemployment and falling international rates for college to employment transition. In terms of the actual training received by college graduates, Cosser (2003) reveals that 45% of those employed indicated that their job was not appropriate to their college qualification. 38% claimed that they took the job because they could not find employment better linked to their level of education. Moreover, 36 per cent of respondents who were self-employed (albeit this is a small group) cited not being able to find a job in the field in which they were trained as their chief reason for working for themselves. The study reveals much about the broader structure of the economy, particularly the inability of the economy to grow in such a way that it creates jobs. The analysis of the research, however, is presented primarily in terms of individual agency in determining employment outcomes: the survey results, and thus the conclusions reached are based on FET college graduates' responses to questions around the choices they have made, and the outcomes of their forays into the jobs market. Socioeconomic factors are considered but are not



linked explicitly to the graduates' agency in order to explain why education-to-work transitions are so fragmented and contingent.

Gewer's (2010) tracer study sought to further insight into the factors that impact on the transition of young people from college to work. Building on a research base which began in 2001, this study traces a cohort of FET College students from 2003 and compares this cohort to a sample of college learners from 2009. The study consisted surveys conducted in 2001 and then again in 2009, in order to understand the social and economic factors that influenced young people to study at FET colleges (from the individual perspectives of the respondents); the experiences of young people leaving FET colleges and attempting to enter the labour market; and the transition pathways of the cohort from school to work via the FET colleges. There are four main findings. Firstly, that while socio economic conditions and the role of the family were important factors in determining the choices in education, working class parents often deferred educational choices to their children. Thus, it was the interests of the individual learner, the affordability and accessibility of colleges that were the prime determinants of choice. Secondly, learners believed that FET colleges were not actually playing a meaningful role in exposing them to the workplaces or providing linkages to employers; instead, they felt that colleges provided them with abstract preparation in the classroom. Thirdly, learners felt that the colleges provided no actual workplace experience. Fourthly, all of these factors lead to a situation in which, because of limited links between FET graduates and relevant places of employment, learners relied on personal contacts, family relations, and newspaper advertisements to find jobs (Gewer, 2010). None of these effectively guaranteed meaningful employment.

The Centre for Development and Enterprise (CDE) performed a survey in Johannesburg, eThekweni, and rural and urban areas of Polokwane (CDE 2007). While the survey revealed important challenges that youths face in school-to-work transitions, it also revealed some of the intricacies of other types of transitions, namely, transitions from self-employment (usually informal sector) to waged employment (formal sector); and from waged employment to unemployment. It revealed dismal figures for school leavers (with a Matric) finding full-time employment (40% of school leavers with a Matric found employment in the formal sector). This was much worse for those without a Matric (21% of the sample without Matric certificates had jobs in the formal sector), who were far more likely to end up either unemployed or self-employed in the so-called informal sector (CDE, 2007). Similarly, Sheppard & Cloete (2009), in a nation-wide survey commissioned by the Centre for Higher Education Transformation (CHET) and the Further Education and Training Institute (FETI) found that holding a Matric certificate increased the likelihood of finding formal employment by as much as 60% compared to having less than a Matric qualification.

Importantly, the CDE study shed light on other types of transitions over-and-above education to work transitions. In transitions between informal sector activity, formal sector employment, and unemployment, the survey revealed that only 8% of the sample was able to make a transition from informal sector activity to formal employment (CDE, 2007), whereas a staggering 32% made a

transition to unemployment from the formal sector. The findings also showed that transitions to formal employment often never happen because many young people only have the option of attending local rural schools of poor quality. This may convince young people that education is futile, and thus many young people drop out of school to help support their families. Much of the South African research makes suggestions such as promoting the creation of a conducive policy and institutional environment in which education can be functionally linked to employment opportunities or that fostering 'social capital' is an important means to creating and sustaining successful transitions. The individual and their choices in education and training often seem to be implicitly assumed to be more important than broader social and economic structures.

## **INTERNATIONAL LITERATURE**

Much pathways and transitions systems research in the international comparative literature (Raffe 2003, Austen and Macphail 2010, Cruz-Castro and Conlon 2001, Bowers et al 2000, Russell and O'Connell 2001), use longitudinal cohort panel studies, tracking processes and outcomes over real time, from school and into a range of forms of education, training, and skills development, and into the workplace (or unemployment). Such panel studies allow researchers to analyze differentiation in participation and outcomes—earnings, occupational mobility, promotion and so on—by gender, ethnicity, social class, or location over time (Dumbrell 2003, Curtis 2008, Marks 2006, Figgis 2001, Harris et al 2006, McMillan et al 2005).

Howieson et al's (2008) longitudinal study of work to school transition in Scotland revealed that young people's transitions have changed fundamentally from the late 1970s onward, from a position where most school leavers left school at the end of the compulsory period of schooling, and only 37% remained in the schooling or moved into the post-schooling education sectors. By 2006, this was the case for a staggering 76% of young people (Howieson et al, 2008: 18). This change relates to the change in the nature of the Scottish labour market more broadly, where entry jobs available to young people are more often casualised jobs, where highly skilled, 'thinkers' rather than 'workers' are valorised by employers and prospective young employees prospectively. Concomitantly, there have been several policies that have advocated longer periods of schooling and training so that young people can become thinkers rather than just workers. Therefore the longitudinal study concluded that young people's transitions are becoming more protracted, more diverse and more complex where pathways in education and the labour market are becoming more flexible (Howieson et al, 2008). In a similar vein, an Australian study performed by Buchanan et al (2009) found that while school-to-work transitions were becoming much more complex and less linear, transitions between 'standard' and sub-standard' jobs became particularly fragmented, contingent and far less contiguous:

the connection between education and work often involves either taking sub-standard work or a severe compromising of discretionary time...spells of unemployment [between further studying or

between jobs] more often than not are linked to job churn through casual, low paid work...the flows are fragmented, and more often [than] not marked by deep inequalities (Buchanan et al, 2009: P 12).

Some international research and theorization has produced 'ideal type' transitions systems as exemplified by the work of (Raffe (2008, 2011) and Iannelli & Raffe (2007). The 'ideal type' transitions systems are characterized by the relative strength of links between vocational education and employment, and governed respectively by an 'employment logic' and an 'education logic' (Iannelli and Raffe, 2007). National transition patterns, explain Iannelli and Raffe (2007), can be explained by the strength of linkages between education and labour markets. In countries with strong linkages, employers and trade unions have a larger role in the design, delivery and assessment of vocational programmes. There is also frequent contact between educational and labour market institutions. Skills developed in vocational programmes reflect employers' demands and are more likely to allow for the development of recruitment networks for young people. Thus, this type of transition system is understood as an ideal type characterized by the 'employment logic'. Transitions systems which are characterized by weak linkages between vocational education and employment, and where the strong links exist between labour markets and universities, characterized as exhibiting the 'ideal features' of the 'education logic' (Iannelli and Raffe, 2007). Raffe (2008/2011) and Iannelli and Raffe (2007) do not, though, include much analysis of the nature of employment, work as well as the broader labour market in their analyses.

Offering an overview of the state of research in transitions systems, Raffe (2008) suggests that transition systems research has had four significant achievements. Firstly, it has illustrated that transition systems matter. This is to suggest that country differences in the processes of transition fundamentally affect the outcomes of a particular transitions system. Secondly, the research has broadened our understanding of countries' transition patterns in comparison to each other. This has been achieved by developing effective and reliable cross-national Indicators which allow for direct cross-national comparisons of transition systems. Thirdly, it has identified several important, and often shared, characteristics of transition systems. Fourthly, it has assisted researchers and policy makers to attain better insight into the internal dynamic and logic of their own transition systems.

While these four points can be seen as victories for transition systems studies internationally, Raffe (2008) also suggests that there two main phenomena in transition studies that need much work. Firstly, Raffe (2008) argues that transition systems research has failed to produce general explanations, although it has produced general indicators such as typologies. This is, however, simultaneously linked to the existence of theoretical eclecticism or theoretical confusion, which prevents the creation of a unified and coherent theoretical means for explaining and predicting the outcomes of transition systems. Secondly, for Raffe (2008), a serious challenge for transitions systems research is the need for it to engage with theories of social change and the role of the nation-state in transitions. While transition studies have engaged with general theories of educational change such as individualisation and risk theory, or developed typologies to analyse

different types of transition systems (Bosch & Charest, 2008), these approaches have not assessed how transition systems themselves change. In terms of the nation state then, transition studies have accepted the nation state as an unproblematic unit of analysis, not to mention that the nation-state is uncritically treated as a static, neutral arbiter of interests.

Heinz (2009) seeks to fill some of the theoretical gaps posited by Raffe (2008) by suggesting that sociological understandings of transition systems can provide a much more holistic and less parochial means of understanding the outcomes of a particular transition system. While institutions, policies and policy instruments are a part of the broader social, political and economic context of transition systems, there has been a bias toward individual agency (for example, decision-making) as the key determinant of transition outcomes. Heinz (2009) advocates a 'structuration' approach to understand transition systems. In this, Heinz (2009) suggests that while economic and social forces are important structural determinants of transition systems, aspects of individual agency, such as decision-making, biography and life planning should be understood within the context of broader social structures. This structuration approach speaks directly to Raffe's (2008) concerns around the dearth of a unified theoretical perspective that can predict the changes and outcomes of transition systems. Therefore, for Heinz (2009: p 400) "Transitions are embedded in opportunity structures, social networks and institutions, but take their course through individual agency of constructing meaningful connections between past experiences and future plans, a construction that is strongly influenced by present living conditions".

Another approach often taken to transition studies is the so-called ecological model in which an 'embedded context approach' (Stevens, 2007) takes structuration as its point of departure. In the embedded contexts approach, the behaviours of individuals and institutions is represented within a system of multiple contextual layers. This provides a means to consider how individual and organisational level activities interact to produce sometimes unexpected outcomes. The work of Taylor & Servage (2012) exemplifies this approach. In their work on internship placements for young people in the health services sector in Alberta, Canada, Taylor and Servage (2012) found that in the Canadian transition system, changes in healthcare work and the healthcare workforce and increasing competition for positions all deeply affected school to work transitions programmes such as Healthcare Internship Programme. Specifically, it was expenditure cutbacks in the Canadian healthcare sector which meant that healthcare officials sought to 'pick winners' that would give healthcare providers more 'bang for their buck' (those high achieving, career-oriented and self-directed young people) over and above any other potential interns, who would make the most of their internship opportunity.

Part of the complication of this area is that there is no

enduring, given relationship between levels of educational outcome (and, crucially, the long-term educational career paths leading to them) and prospective positions in the system of social

stratification (stratification by gender and ethnicity as well as by class and occupation). Consequently, it is difficult to maintain that differentiated educational paths in some way prepare pupils for given positions in the stratification system (whether in its economic or gender relations). What is significant is not so much the type of education that different groups receive (whether defined through formal content, the hidden curriculum or the social relations of education, but the relative differences between the amounts and status of education regardless of content or form" (Moore, 2004, p. 101).

What is needed, therefore, is better insight into the different mechanisms at play. One key area of interest is looking at different theories which attempt to explain education/ labour market relationships, and testing their predictive validity.

## THEORIES AND MECHANISMS

Different theories about the relationship between education and the labour market tend to be premised on different putative mechanisms about why education pays off in labour markets. One such theory is human capital theory, which lies unstated and unacknowledged behind much policy discourse as well as research in this area. The key idea here is that education enhances individuals' productivity. Richard Breen (2005), for example, suggests that when education and training can provide the specific skills that employers (or more broadly, that the labour market demands) are looking for, education-to-work transitions become much easier as employers recognise the potential productivity of a 'correctly skilled' job seeker. Employers, it is assumed, are willing to pay higher wages to better educated workers because of they will be more productive than uneducated workers. The mechanism at work here is the productivity-enhancing competencies that students acquire through education (van de Werfhorst, 2011). Many researchers suggest that this is inherently tautological: "the fact that there is an education premium in wages in the labour market is enough for the human capitalist to assume that market forces choose workers with greater productivity and hence education must be the main causal factor behind the wage gap" (Baker, 2009, p. 164).

An alternative view suggests that employers are uncertain about the marginal productivity of potential employees, and unable to clearly ascertain what knowledge and skills they bring, let alone how these enhance or otherwise affect productivity. What they do, therefore, is look for crude signals that differentiate applicants from *each other* (Spence, 1973). Educational qualifications are used as a screening device that gives broad information about individuals relative to each other (Collins, 1979). Thurow (1976) posits a job competition model with two queues: one of vacancies for jobs, and one of applicants. The first queue is ordered by the complexity of the jobs available (itself a contested issue). The second is ordered by educational attainment of applicants. Selection in the labour market brings these two queues together, starting from the high paying, (believed to be) complex jobs, and highly educated applicants. Here education is a positional good; the key issue is one's position in the queue relative to others. In models like this one, in which education is used to sort individuals, education can be a sorting device for characteristics that individuals had before

entering education, as well as those that they obtained in or through education. Collini (2012) argues, for example, that employers have traditionally sought arts and humanities graduates for top jobs in the UK not because they necessarily gain 'useful' skills through these courses, but because these courses have historically attracted many of the brightest students. Of course other factors can explain one's relative position in the job queue. A key one in current labour markets around the world is work experience, thus relegating young people to low positions in queues, even when they do have relatively good educational levels, and creating the perception of a 'youth' unemployment crisis (instead of just an unemployment crisis). One factor which is believed to be important to employers is an estimation of training costs, and more educated people are believed to be cheaper and easier to train. However, workers with experience are a known quantity, against a potentially risky decision.

An important distinction between the two models is that in the productive skills or human capital approach, the individual holding a job is seen as the key to the productivity of the job, whereas the positional good perspective sees productivity as primarily determined by jobs, and an individual's earnings depend on the job she acquires, and not her personal characteristics (van de Werfhorst, 2011). Both approaches, though, focus on the productive characteristics of qualifications, whether indirect or direct. There are, though, theories which argue that qualifications have nothing to do with productive capacities or the 'trainability' indicated by levels of educational achievement, but rather, as a legitimized means for social inclusion and exclusion. Van de Werfhorst (2011) labels this the 'social closure' perspective. The essence of the argument is that more advantaged groups close off opportunities to less advantaged groups, and educational qualifications or credentials are a key means to doing so, particularly in democracies where overt forms of nepotism and favouritism are frowned upon or made illegal. By demanding formal qualifications for access to jobs, employers can control access to privileged positions. Brown et al (2011) provide one account of this mechanism at work in what they describe as a beauty contest between the world's top universities and top multinational companies. The latter describe themselves as in a 'war for talent' which Brown and colleagues argue is completely implausible (Brown et al., 2011; Brown & Tannock, 2009). Rather, the authors suggest, the 'war for talent', and its current result of recruiting exclusively from a tiny handful of universities, is a way of eliminating most potential applicants, in an era of increasingly widely available higher qualifications. Other researchers who explore this perspective suggest that formal education and/or training is a kind of con (for example, Berg, 1970). As Baker (2009) points out, both the human capitalists and the 'education-as-myth' model make substantial assumptions about what happens in schools, but rarely look at them.

Van de Werfhost (2011) develops a theoretical approach that connects various theories of why education has an effect on labour market outcomes with institutional settings in which such theories provide the most likely mechanism. He suggests that the different structural and institutional settings within labour markets will differ across industries and countries, and tests his theory against different sets of graduates and different job types in the Netherlands. This type of research is lacking in South

Africa, which tends to operate within a human capital paradigm, which assumes that employers are employing and paying on the basis of skill, and that employment therefore reflects nothing more than how well educational programmes have prepared learners for the labour market.

The literature discussed above all assumes that employers are prepared to pay higher wages and give better employment prospects to people with higher rather than lower qualification levels. This, though, is not absolute. As Brown et al (2011) point out, for example, multi-national employers are increasingly off-shoring legal and IT work. They argue that young people in developed countries who made educational investments, often at considerable personal expense, in the hope of achieving well-paying and rewarding jobs, are increasingly less likely to do so. Accordingly, Lauder, Brown, and Tholen (2012) present what they call the Global Auction model, which they suggest has more explanatory power than human capital theory with regard to graduate employment and incomes. Brown and Tannock (2009, p. 377) argue that this 'global war for talent' is entrenching and promoting a narrow, market-based conception of education, skill, and talent, as well as an attempt to liberalize the global movement not just of capital and commodities, but also of highly skilled labour.

Buchanan et al (2009) improved pathways from education to the labour market can only be achieved by reducing the fragmentation of the workforce, as well as the fragmentation of systems of workforce development. They posit the idea of a 'skill eco system'. In a healthy, sustainable ecosystem, the development and deployment of labour are in balance. An ecosystem could be unhealthy if there is a pre-occupation with deploying labour, leading to work overload, and limiting the possibility for coherent skills development, or, if skills are underutilized on the job.

Another set of issues is raised by researchers who examine how education has changed work—instead of seeing it simply as the process of producing productive workers. While strongly arguing that the relationship between schooling and work is more complicated and less 'efficient' than proponents of human capital theory would desire, Baker (2009, p. 179) points out that we cannot see the world of work as "mostly fixed in some preconceived 'natural' fashion" but must instead understand that it "expands and adapts given large-scale changes in the characteristics of the work force". Education, he argues, as transformed work, reconstituting the very foundations of society and the way work is organized, our understanding and expectations for peoples' capabilities, the nature of work, and even what is usable knowledge for economic value.

## **THINKING MORE BROADLY ABOUT THE EDUCATION-LABOUR MARKET 'MISMATCH'**

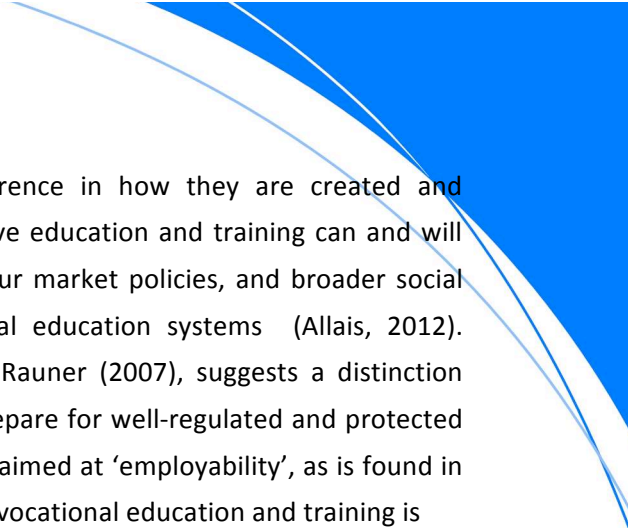
There are many and complex reasons for why education does not produce skills in line with the immediate needs of labour markets. One is that labour markets or the nature of work may change at a faster pace than what educational institutions can respond to. But there is a range of factors which are completely extraneous to education. For example, Breier (2009, p. 127) argues that there is a

shortage of medical doctors in South Africa, in both the public and rural service, despite the fact that sufficient numbers of doctors are being trained, and that nowhere in the country “do we achieve the doctors-per-population norms of even middle-income countries internationally. ... At the same time, many thousands of our doctors – estimates range from one-fifth to one-third of our medical workforce – are working abroad”. The problem here, then, is not a training problem, but a far more complex one relating to conditions of employment and lifestyle factors in South Africa compared with other countries. A different type of example is provided by Chang (2010), who points out that bright Koreans are increasingly becoming doctors, rather than engineers or scientists, despite a continued need in the labour market for the latter two professions. He suggests that a major factor could be low levels of social security, recently further lowered. Whereas medicine is seen as a secure profession in which there is considerable possibility for self-employment at high level, many companies retrench or otherwise get rid of older engineers and scientists.

In fact, the nature and structure of the labour market may be a key determinant of the structure and quality of education and training for work. Freidson (2001) theorizes three main logics of the labour market, which co-exist within countries: free markets, bureaucratic markets, and occupationally controlled markets (Freidson, 2001). Each ‘logic’ has different implications both for how work is organized (how tasks are organized and divided among workers, controlled, and evaluated), as well as for the organization of labour markets. In the first type of labour market, consumers (of labour) are sovereign, deciding what goods and services to demand, whose labour to employ for producing them, and what to pay for the labour. Competition between workers selling their labour and attempting to satisfy consumer demand is what shapes the labour market. By contrast, where the division of labour is controlled bureaucratically, a directing authority and support staff decide what work shall be done, and how it will be divided among jobs. This is not necessarily a feature of centrally controlled economies, but of any large workplace, and any industry or sector of the economy in which large workplaces predominate. Finally, where the division of labour is occupationally controlled, specializations become stabilized as distinct occupations, and specialized workers obtain the exclusive right to perform the tasks connected with these occupations. Neither consumers nor managers are free to employ any willing worker, or to train workers for the purpose themselves; they must use members of the occupation who are recognized by the occupation through its own credentialing system, which determines which qualifications are required to perform particular tasks, with the backup of the state. This can be seen in the stable, identifiable specializations organized as guilds (in the past), crafts, and professions.

Freidson (2001, p. 65) points out that in free labour markets, "it seems likely that for a large proportion of workers there will be no stable specialization and little public or official recognition of their work as distinct occupations", but at the same time suggests that most economists agree that “the conditions for a perfectly free labor market are virtually impossible to find it all but minor and marginal segments of modern economies." Transitions between education and the labour market are likely to work best in sheltered jobs and occupations, found in both bureaucratic and occupationally





controlled labour markets, although with substantial difference in how they are created and controlled. It is in these jobs and occupations where extensive education and training can and will take place. This is why labour market regulation, active labour market policies, and broader social policy are major determinants of the success of vocational education systems (Allais, 2012). Michaela Brockmann (2011), drawing on the work of Felix Rauner (2007), suggests a distinction between vocational education and training systems which prepare for well-regulated and protected occupations, such as the German dual system, and education aimed at ‘employability’, as is found in countries such as the US, the UK, and Australia. In the former, vocational education and training is

integrated into a comprehensive education system, and is designed to develop the ability to act autonomously and competently within an occupational field. Qualifications are obtained through the successful completion of courses developed through negotiation with the social partners, integrating theoretical knowledge and workplace learning.

What is key here is not just the nature, structure, and quality of the education system, but the nature of the labour market. An occupation is a formally recognized social category, with regulative structure concerning qualifications, promotion, and range of knowledge (theoretical and practical) required (Clarke, 2011). The employment relationship is a long-term one, which makes it more likely to be founded on abilities that are multi-dimensional and holistic. Accordingly, vocational training aims at ensuring that students develop a high level of autonomy, an understanding of the entire work process and of the wider industry, and an integration of manual and intellectual tasks. There is a clear correspondence between the regulated occupations in the labour market, and the programmes offered through the vocational education system. The organization and regulation of occupations reduces competition in the labour market at the level of intermediate qualifications, in the same way that in most countries, competition is reduced for professional workers.

In the second model, which is prevalent in Anglo-Saxon (liberal market) countries,

a ‘market of qualifications’ enables individuals to enhance their employability through continuing vocational education or certification of sets of competencies acquired either through work experience or modularized courses” (Brockmann, 2011, pp. 120–121).

In this model, individuals can compose their own qualification profiles, according to what they think will improve their position in the labour market (Brockmann, 2011). Vocational education is regulated through this ‘market of qualifications’. The result is weak relationships between education and training and the labour market. As Rauner (2007, p. 118) argues,

When competence development is disconnected from occupationally organized work and the related vocational qualification processes, the relationship between vocational identity, commitment and competence development becomes loose and fragile. In which case, modularized systems of certification function as regulatory frameworks for the recognition and accumulation of skills that are largely independent from each other and *disconnected from genuine work contexts* [my emphasis].

Compounding this problem is the fragmentation of work in many liberal market economies, whereby the labour process is fragmented into discrete work processes, and employers are interested in skills for the immediate job at hand. Intellectual functions (planning, coordinating, evaluating, controlling) are sharply separated from execution, and training is aimed more at ‘jobs’ than at ‘occupations’. Where the notion of occupation is used, it tends to be used in a restricted sense, as occupational standards and series of skills—or, a set of related tasks bundled together (Winch, 2011).

The key point here is that different vocational education and training systems have developed in the context of a set of political, economic, and institutional arrangements. Beyond labour market regulation, but other social policies, as well as the nature of the economy and the nature of production, need to be considered.

Hall & Soskice (2001), in their work on ‘varieties of capitalism’ distinguish between two main models of political economy in the western democracies. The first ‘variety’, liberal market economies, includes capitalist economies which operate more closely to the ‘unfettered’ free market economic model (the United States, the United Kingdom, Australia, and Canada). The second, ‘coordinated market economies’, include those countries in which the economy is more regulated by state intervention, whereby the state plays a formative role in developing and maintaining multiple mechanisms for institutional coordination (for example, Denmark, Norway and Sweden). Some of the most important institutional coordination occurs with a tight coupling between the financial and industrial wings of big business, collective wage determination, and strong and well-supported systems of general and vocational education, supported by the state. Iverson and Stephens (2008) argue that because coordinated market economies enjoy high levels of social protection, individuals are encouraged to acquire specific skills. Scandinavian notion of ‘flexicurity’, for example, represents the situation whereby individuals are well protected from periods of unemployment. Because of this protection, acquiring highly specific skills makes sense as an individual choice. Individuals who are forced to take the next available job when they lose their current job are less likely to invest in acquiring very specific skill sets. Through systems such as flexicurity, which allow individuals to acquire very specific skill sets, social security is able to support a training system that enables firms to specialize in highly competitive international niche markets. Because there is a clear and attractive pathway from vocational education, workers at the lower end of the achievement distribution are incentivised to work hard in school in order to get into the best vocational schools or get the best apprenticeships. Once skills at the low end are raised, a more compressed wage structure is possible.

In liberal market economies where there is little redistribution of wealth to public schooling and little social insurance, the middle and upper-middle classes tend to ‘self-insure’ by attaining high levels of *general* education, generally through private institutions such as universities. Students who expect to go to higher education have strong incentives to work hard. Vocational education is weak, so learners in the bottom third of the achievement distribution have few incentives to do well in school,

and few opportunities to acquire skills. Skills at the bottom end are low, and workers end up in poorly paying jobs with little prospect for advancement.

The current explanatory power of the varieties of capitalism literature is increasingly contested, but the point here is to identify *relationships* between systems of social insurance, systems of skill formation, and spending on public education. Iverson and Stephens argue that historically, in the developed capitalist economies, social equality has fostered the development of high levels of both general and specific skills, especially at the bottom end of the skill distribution, which in turn reinforces social equality. Specific and general skills at the bottom of the distribution have also been strongly linked to employment protection and unemployment replacement rates. General skills at this level are furthermore strongly related to an active labour market policy as well as to vocational education. They suggest that 'information age literacy' (including reasonably high levels of general literacy as well as information technology ability) is "extremely strongly and negatively related to the degree of inequality" (Iverson & Stephens, 2008, p. 621). This is based on an analysis of the Scandinavian countries: coordinated market economies which have been dominated mainly by centre-left coalitions that have supported heavy investment in public education and industry-specific and occupation-specific vocational skills. This model, they argue, has enabled both high levels of general skills and high levels of industry-specific skills. Because of the social security net and extensive spending on retraining, labour market flexibility is well supported. The combination of heavy spending on general education and well-developed vocational training creates a more compressed skill structure than in liberal market economies as not only do workers at the bottom in coordinated market economies have more specific skills than their counterparts in the liberal market economies, but they have better general skills too. This makes workers in the coordinated market economies more able to acquire more technical skills, enabling high value-added production. High levels of general education has also helped these countries cope with the rise of the service industry.

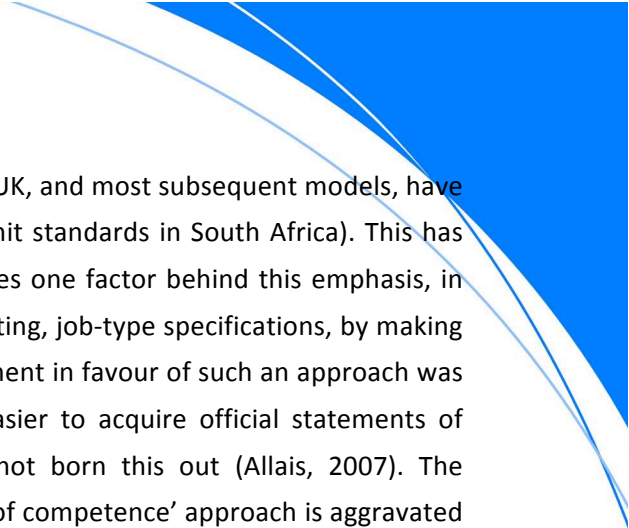
When we juxtapose South Africa with the literature described above, it becomes easier to understand the weakness of our education and training system (notwithstanding factors internal to this system, some of which are discussed below). Inequality, fragmented work and a casualized labour market, and a historic and current built-in dependence on cheap labour as well as on the exploitation of primary resources, and a bias towards importing technology solutions, all work against the possibility of good vocational education, and are unfavourable to the development of skills in the general population. There is a strong and vocal lobby to increase job insecurity, particularly for the youth, despite the fact that our economy is characterized by extremely high unemployment and extreme job insecurity for many workers. All these factors are diametrically opposed to the factors described in the literature above, which have, in some developed countries, led to high levels of both general and vocational education, with considerable economic and social benefits. Allais (2012) argues that it is precisely because of the liberal labour market conditions which prevail that South African that education policy has followed the model of liberal market economies, favouring the 'market of qualifications', and attempting to regulate a market-based approach to

education and training through a qualifications framework and quality assurance system. However, this approach makes it *less* likely that people will attain general or specific skills and knowledge: it is almost impossible to build 'successful' vocational education in a context of extreme job insecurity and casualization.

In liberal market economies, as well as economies dominated by informal markets, one of the major initiatives to improve alignment between education systems and labour markets is qualifications frameworks. This was first systematically attempted in the UK in the 1980s, with the National Vocational Qualifications (Young, 2009a). These qualifications were supposed to specify the expectations and requirements of employers, in terms of expected work performance, expressed as learning outcomes and relied on assessment in the workplace (Stewart & Sambrook, 1995, p. 98). This is why this type of policy is described as 'market' or 'industry-led', in this initial incarnation and in the various imitations of it throughout the world, despite its weak linkages with labour markets. This model of educational reform has, until recently, been confined to the English speaking world (mainly the UK, Australia, and New Zealand), and developing countries influenced by these countries. The starting point has been liberal market economies with weak labour market regulation. This has meant that this type of system has been generally focused on employers' short-term labour market needs. King (2009), for example, points out that in India while there is a policy emphasis on 'demand-driven training', "the present system is already very demand driven, but driven by a massive demand for using cheap, unskilled labour, and training on the job". This, ironically, is one reason why this model often leads to a lack of labour market currency for many occupational qualifications (Clarke & Westerhuis, 2011). The English model has been replicated in many countries around the world, and has particularly been part of what McGrath (2003) calls a 'toolkit' of reforms of TVET systems in developing countries, which generally have largely or predominantly informal labour markets.

However, as shown by Friedson (discussed further below), it is specialized occupations (clearly defined and protected occupational roles) which *enable* training. The outcomes-based qualifications framework or competency-based training model assumes that employer-specified competencies, or descriptions of work, can lead to substantial and quality training in a much freer labour market. This, though, may be a logical contradiction; as Standing (2011) points out, it is irrational to invest in an occupational skill if an individual will have no control over how they can use and develop it. Brockmann et al (2011) show clearly that economic context can constrain pathways. They show that subcontracting, and outsourcing are a serious problem for work-based learning and the acquisition of qualifications. They also point out (2011, p. 6) that:

... countries with co-ordinated market economies, characterized by high levels of social partner involvement in VET, have been able to reform their VET systems in line with new economic challenges and as a strategy for innovation. By contrast, initial VET in liberal market economies has been marginalized and increased emphasis placed on general and higher education, albeit often of a vocational nature.



Further, the initial model of a qualifications framework in the UK, and most subsequent models, have had a strong emphasis on separate ‘units of competence’ (unit standards in South Africa). This has led to a fragmenting of training for work. Winch (2011) argues one factor behind this emphasis, in the UK in the 1980s, was a desire to legitimate constantly shifting, job-type specifications, by making them easier to accredit. In South Africa in the 1990s, an argument in favour of such an approach was that it would benefit disadvantaged people by making it easier to acquire official statements of competence bit by bit; empirical evidence, however, has not borne this out (Allais, 2007). The fragmentation of training which tends to flow from the ‘units of competence’ approach is aggravated by the idea that qualifications should be self-contained, without reference to particular learning programmes or curricula. In order to provide sufficient clarity to the range of possible users, the narrowly conceived of outcomes/ competences tend to become very overspecified (Allais, 2007, 2010; Wolf, 1995). The process of designing the learning outcomes or competences also tends to lead to the emergence of new terminology or jargon, understood only by those who have been involved in developing the outcomes—which then contradicts the aim of increased transparency and improved supply of information in labour markets and putative education markets.

It should also be pointed out that in many countries which have attempted to marketize their vocational education systems as a way of ensuring ‘demand’ for educational programmes, have found that this type of intervention can become centralized and top-heavy. The regulatory state is not a small state (Allais, 2012; Keep, 2005, 2007). Allais (2012) argues that the qualification and quality assurance model which was developed through the National Qualifications Framework (NQF) has contributed to the weakness of education aimed at the workplace, instead of improving relationships between education and the labour market. It led, particularly in the weaker sectors of the education system (vocational education, adult education, skills training and workplace-based training) to cumbersome qualifications which are difficult to use, with narrow but lengthy and overspecified qualification documentation. This has made the work of government institutions as well as providers difficult, and ironically, has made it harder for providers to be responsive to employers’ needs. Most of the formal education system (such as universities) ignored this qualification model, other than cosmetically rewriting their qualifications into outcomes-based formats, but providers needing accreditation through the SETAs have in many instances been compelled to use the new outcomes-based qualifications developed through the NQF. This could be a major contributing factor to the inability of the education and training system to produce according to the needs of the labour market; in other words, what is required is not just a focus on mechanisms to increase the ‘fit’ between the two systems, or to ‘facilitate transitions’, but a focus on strengthening the capacity of the education system in its own right.

The NQF and its surrounding quality assurance systems has been changed, and there are signs that there may be further changes (DHET, 2012). What is also required, though, is a better understanding of how to build and support educational institutions, as well as strengthen curricula and teacher

capacity; all areas which have been seriously neglected in South Africa. As McGrath and Akoojee (2009) argue, governments can do more to support both public and private provision.

Ironically, one of the major rationales behind qualifications frameworks was a critique of credentialism, and an over-reliance on qualifications as the major proxy for capability in the workplace. A major claim is that qualifications based on learning outcomes or competencies offer better (clearer and more precise) information to employers about the abilities (and thus potential productivity) of potential applicants. Improving the information available to different parties in the labour market is believed to be a significant factor in improving the functioning of this market. Leaving aside the question of whether insufficient information is the main or even significant problem with the functioning of labour markets, the point here is that at the same time as failing to provide better information in labour markets, the new qualifications frameworks may have entrenched the emphasis on qualifications as a central labour market signal. This may be aggravated by the desire, through recognition of prior learning, to issue credentials for every possible skill that a learner might have.

## **THE KNOWLEDGE ECONOMY**

The idea of the 'knowledge economy' is a major contributor to contemporary questioning of the role of secondary education and the curriculum (this questioning has also, in part, been caused by the relatively recent and rapid expansion of secondary education internationally). The promise of the knowledge economy is that people who have high levels of skills will have financially rewarding work, and will enjoy autonomy and creativity, and that countries which invest in education and training will gain the competitive edge in the global economy. The increased centrality of education policy in relation to questions of economic competitiveness and social justice is premised on the hope that education and training will improve competitiveness of industries, but at the same time lead to a greater equality of income. The idea is that individuals who invest in education can become knowledge workers, and will be rewarded financially as well as with power, greater autonomy and creativity (Lauder and Brown 2009). This has contributed to considerable debate about the nature of the curriculum. Much is made of the 'speed of discovery' of knowledge because of which, it is argued, 'much of what is taught in schools is, by definition, outdated' (Murgatroyd 2010, 260).

There are two points worth mentioning here. The first is that the promise of the knowledge economy seems increasingly illusory, particularly following the recent devastating economic crisis. There is evidence of a growing labour market for high-skilled low-waged work, on top of the existing one for low-skilled low-waged work. Lauder and Brown (2009) compellingly demonstrate how the promise of the knowledge economy has been manifestly broken, benefitting only a small minority of 'knowledge workers', while a majority has been forced into a global labour market for high-skilled low-waged work (and of course those who are not 'knowledge workers' remain in low-skilled low-waged work). Lauder and Brown's 'digital Taylorism' is echoed in Christopher Newfield's (2010) idea of the

‘cognotariat’, which captures the systematic stratification within ‘knowledge workers’ as a class or group, as well as the development of a structural basis for this stratification through proprietary knowledge.

The second is the way the idea of the knowledge economy is invoked to justify or drive curriculum reform. One issue here is the way in which economic or labour market problems are redescribed as educational problems, and education systems are expected to solve them. An interesting recent example of this is the emergence of the notion of ‘career management skills’ as a new type of skill that schools, it is argued, should cultivate in learners, to enable them to cope in changing labour markets (Sultana, 2012). This is just one example of the danger of seeing labour market problems as educational ones, and is likely to lead to a curriculum driven by genericism, and trendy ideas about generic, transferable skills. As Young (2009b) points out, despite emphasis on knowledge in policy documents, discussion about knowledge economies or knowledge societies, and curriculum reform, ‘knowledge’ is often used rhetorically, or as an empty category, with little thought going into what knowledge should be contained in the curriculum, and, in many countries (as evidenced in South Africa through outcomes-based education), attempts to avoid specifying knowledge in the curriculum. Recent research and theoretical developments suggest new ways of thinking about knowledge and the curriculum (Gamble, 2011; Moore, 2009; Young, 2008). Serious thought and research into the nature of the curriculum, both in terms of education which is aimed at preparing people for work, and more general education, is crucial, in order to understand what the possibilities are for pathways between education and the labour market, and what the inherent limitations and difficulties are, and what may be lost in an overemphasis on short-term preparation for work.

## **RESEARCH PRIORITIES**

What, then, are possibilities and priorities for research in this broad and complex area?

It is not sufficient to take an individualist perspective, such as the choices young people make in what type of education and training they access. Neither is it sufficient to make use of a cursory socioeconomic analysis to understand the structural context in which transitions play out without explicitly linking education and training to broader social factors. While institutional and policy perspectives in transition research are important, given the problems cited with education and training at all levels in South Africa, a broad socio-economic analysis of the state of the South African economy, the state, and, importantly, the labour market itself should take the lead in designing research moving forward. Clearly, better theoretical understandings are required of relationships between education systems and economies, and more specifically, the different mechanisms which are at work in the South African labour market. We also need to better understand the need for qualified people in South Africa and the ability of our education system to meet the needs; the need for more and better institutions and learning programmes; and the current barriers which prevent people from accessing education and the labour market. Underpinning all of this is the need for

better ways of conceptualizing vocational, occupational, and professional curricula, and strengthening providing institutions, to make it more likely that they will support the long-term needs of our society and economy.

## **QUALIFICATIONS, OCCUPATIONS, AND KNOWLEDGE**

We need far better insight into how different qualifications are produced, understood, and valued, and how they correspond with different occupational divisions of labour. Vocational programmes have often been developed by people who have no concept of the economy and without an analysis of existing vocational education and what its problems have been. The reasons why vocational education does not work in many countries are complex, and need further investigation. We suggest three starting points to understand this problem. The first is that there simply aren't the jobs for young people. The second is that vocational education has been developed independently from professional education, despite the fact that it is almost always the case that that professionals have an interest in the knowledge and skills of people who work for them—technicians and so on. Outcomes-based education, the NQF, and competency-based training are all examples of reforms that have aggravated this problem, instead of contributing to solving it. This leaves vocational education trapped in the old divided model split between craft/artisan preparation on the one hand and 'liberal professions' on the other with management professions coming up on the 'outside'. The third is that we are increasingly in a 'VET' without vocations' world—the emerging job market is the hour glass picture, with increasing employment for both highly skilled (intellectual) work, and unskilled work which requires little training, but less for the middle levels of skills. This picture is complex, though, as it intersects with conceptions of work.

A European study conducted by Brockman, Clarke, and Winch (2011) provides some useful ideas about how such research could be conducted. They selected a few key occupations and professions, and conducted a detailed and comparative analysis of the structuring of the labour market, the labour process, and the education and qualifications system, in four countries. A detailed analysis of these three significant components in a few selected occupations in South Africa would add enormously to our understanding of education/ labour market pathways. This research should seek to understand how occupations have changed, are changing, and are likely to change in the future, at different levels of the labour market, and what the implication for knowledge and skills is.

## **LABOUR MARKET AND EMPLOYERS**

Other areas which need to be better understood with regard to labour markets and employers include the mechanisms at work when employment decisions are made in different industries; the role of employers as providers of learning; the structure of employers' demand for skills, their recruitment and selection practices and the incentives this creates; and the impact of labour market regulation on patterns of post-compulsory participation in vocational education and training.



## **WHAT KNOWLEDGE FOR THE 'KNOWLEDGE ECONOMY'?**

We suggest three areas for further interrogation.

The first is the knowledge-base and curricula of vocational and professional qualifications. This includes the role of academic knowledge, and its relationship to the labour market. This research would entail a conceptualisation of curricula in key occupational areas, and relates to the research suggested above into qualification and labour market structuring. It takes it further, though, by specifically exploring specific curricula, in an attempt to strengthen them, and in an attempt to understand how best to ensure that learners, particularly disadvantaged learners, can acquire the necessary knowledge.

A second area is vocational pedagogy and educator capacity-development. The quality of teaching is perhaps the most important factor that impacts on quality of outcomes across all education sectors. However, there is very little known about the area of vocational pedagogy. The initial and continuing professional development of FET college lecturers represents a particular challenge to the system. Universities have an important role to play in improving teacher quality, but this role has been historically neglected when it comes to FET college lecturers, and in many instances, universities may not be in a good position to teach FET lecturers, given their lack of understanding of the context and nature of their work, as well as lack of subject specialization in many areas in which FET colleges teach. In the past the curricula offered to college lecturers have tended to be very similar to those offered to schoolteachers, with adaptations here and there but no real substantive differences. In some areas this is entirely appropriate but in other areas not. Vocational knowledge and vocational pedagogy are specialised areas in which a specialised body of literature is emerging. The knowledge base of vocational lecturers needs to be better understood. Further, research should investigate how best to support and develop FET college lecturers, what the role of universities could be, and what the other ways are that their professional development could be supported.

A third challenge from the perspective of the curriculum of both vocational and professional education education programmes is how to bring together theory and practice in a meaningful way. This is central to ensuring that education prepares individuals for work, but is complex, as the connections between theory and practice are not straightforward, although they need each other. Knowledge and skills at the intermediate level as well as in higher levels of professional education are rooted in both the practical or everyday world, and the conceptual forms of knowledge.

## **BARRIERS TO JOBS, BARRIERS TO EDUCATION**

One key issue here is understanding barriers to work placements and apprentices. Part of what led to a crisis in the previous college curriculum was the inability of college graduates to obtain work placements, and get a full diploma. There are increasing reports that graduates of Universities of

Technology are similarly struggling to obtain placements. Yet organized industry and employers are vocal about their need for skilled employees, and are part of a skills development dispensation that, in theory, encourages apprenticeships and work placements. Research should develop more focused, industry-specific insight into the barriers to work placement from employers' perspectives, with a view to advising the DHET on possible policy interventions.

Improving our understanding of the life circumstances of youth in post-apartheid South Africa, with special emphasis on out-of-education, out-of-work young people aged 15–24 years, will assist in understanding what the barriers are to their participation in different educational programmes, in order to analyze what kinds of educational programmes or assisted employment opportunities would assist them. As Killeen *et al* (1999) argue, the success or otherwise of policy proposals depend in part at least upon the perceptions of young people and their families of how systems are operated by employers.

It is important to conduct an overview of capacity building interventions, short courses, and youth-to-jobs programmes. This could entail a literature review and documentary analysis of all available project reports, tracer studies, evaluations, and available information, as well as interviews with key informants who have run such programmes, in an attempt to start building better insight into what has actually made a difference.

## **INCREASING THE CAPACITY AND DIVERSITY OF OUR EDUCATION INSTITUTIONS**

Another piece of the puzzle that will contribute towards the understanding of how access to learning and occupationally-directed programmes can be increased is an examination of **institutions and provision**. Much political, policy, and research energy in South Africa has been focused on qualification policy, and on access. But qualifications have been developed, and provision has not followed. Increasing the capacity and diversity of our education institutions must be the most important task for post-school education. This should include careful consideration of the optimal size and shape of the college sector in relation to other post-school provision; quality; support needed; funding; nature of provision, and so on.

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