

2012

LMIP WORKING PAPER 1

Made to Measure?

Some International Reflections on Developing VET Indicators

Simon McGrath

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LABOUR MARKET
INTELLIGENCE PARTNERSHIP

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Date: March 2012

Preface

One of the gravest economic challenges facing South Africa is high unemployment, but at the same time, a skills mismatch. The market demand for skilled labour is greater than the number of individuals completing post-school education and training. Prospective employers often complain that the education system does not give individuals the necessary skills to be productive in the workplace, or to start their own enterprises.

Government acknowledges that the unemployment crisis is a systematic problem and cannot be addressed by ad hoc interventions scattered across line departments. With this 'big picture' thinking in mind, DHET aims to create broad and equitable access to a full spectrum of post-school opportunities and lifelong learning encompassing adult education and training, workplace training, the FET college system, artisan and technical training, higher education and innovation.

DHET's ability to create these learning opportunities requires a network of partners to gather and maintain a labour market intelligence system. Such a system can provide analytical insights to support policies and intervention programmes.

In February 2012, therefore, DHET commissioned a HSRC led research consortium to support its capacity to create and maintain a labour market information and intelligence system, guided by the national Delivery Agreement 5. The primary focus is the development of a 'strategic intelligence capability' towards the establishment of 'a credible institutional mechanism for skills planning'. The HSRC coordinated research project is organised in terms of six interlocking research themes, two which focus on labour market information and four which focus on labour market intelligence:

- Theme 1. Establishing a foundation for labour market information systems in South Africa
- Theme 2. Skills forecasting: the supply and demand model (*a Wits EPU project*)
- Theme 3. Studies of selected priority sectors
- Theme 4. Reconfiguring the post-schooling sector
- Theme 5. Pathways through education and training and into the workplace
- Theme 6. Understanding changing artisanal occupational milieus and identities

The consortium made a strategic decision that their research must not duplicate or repeat existing research about the challenges facing South Africa's education and training system and labour markets. Their research must address gaps, promote synergies and explore complementarities.

Hence, as a first step, working papers were commissioned to inform the research agenda for each theme. Although the working papers cover different issues, each has four common dimensions: policy challenges to institutionalise and build a post-school education and training system in South Africa, lessons from seminal national and international research, conceptual frameworks, methodological issues and data challenges raised by this research, and potential research gaps.

One of the HSRC led consortium's goals is to create a living community of practice that researches and debates education, skills and labour market issues. These working papers were presented at a conference in May 2012 to start building such a research network.

The dissemination of these working papers is intended to encourage more individuals to join the research community. We look forward to individuals' comments. They can be emailed to agoldstuck@hsrc.za.za. Welcome to the research community!

Theme 1:	Theme 3:	Theme 4:	Theme 5:	Theme 6:
Establishing a foundation for labour market information system in South Africa	Studies of selected priority sectors	Reconfiguring the post-schooling sector	Pathways through education and training into the workplace	Understanding changing artisanal occupational milieus and identities
Simon McGrath Some international reflections on developing VET indicators	Haroon Bhorat and Morne Oosthuizen Studies of Selected Priority Sectors in the South African Labour Market: A Proposed Research Programme	Andre Kraak Private post-school education in South Africa	Michael Cosser Pathways through education and training and into the labour market	Angelique Wildschut Conceptualising the study of artisans
Phil Toner Establishing a foundation for labour market information systems in South Africa	Peter Jacobs and Tim Hart A critical review of the research on skills development in rural areas	Andre Kraak Differentiation in the post-school sector	Pundy Pillay Pathways through education and training and into the workplace: a concept paper	Jeanne Gamble Models and pathways to institutionalise apprenticeships
Anthony Gewer Developing a framework for institutional planning and monitoring in FET Colleges	Shirin Motala A critical review of research on skills development and labour market demand in the early childhood development sector	Joy Papier et al Contemporary issues in public FET colleges	Sharlene Swartz Navigational capacities for youth employment: A review of research, policies, frameworks and methodologies	
Carmel Marock Developing a framework for understanding SETA performance: Monitoring and evaluating their role in skills planning, steering and enabling a supply within their sector	Thembinkosi Twalo A comparative review of skills development in cooperatives	Veronica McKay A critical review on Adult Basic Education (ABET) in South Africa	Fiona Lewis Traffic jams or trees – how are South African youth progressing through the higher education sector? And what lessons can we learn from current studies?	

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Bongiwe Mncwango Towards a demand side firm level survey of labour information in South Africa	Margaret Chitiga and Stewart Development of a national skills forecasting model	Thenjiwe Meyiwa and Nolutho Diko The state of graduate teacher transitions to the labour market	Stephanie Alais Jobs? What jobs? Skills? What skills?An overview of studies examining relationships between education and training and labour markets	
Michael Cosser and Fabian Arendse Education and labour market indicators	Imraan Valodia Conceptualising skills development in the informal sector	Felix Maringe An overview of studies exploring systemic issues related to the South African post-school sector		
Joan Roodt National database sets and research on labour market demand		Peliwe Lolwana Is post-school education adult education and training? The shape and size of post-school education		
Mariette Visser National database sets available for post school sector (supply side)		Michelle Buchler A critical review of research on skills development qualifications structures		
Michael Gastrow Innovation, skills development and South African labour market intelligence		Volker Wedekind Towards responsiveness and employability in the post-school sector		

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ACKNOWLEDGEMENTS

This paper reflects my own analysis of a range of issues but it draws on work in three teams and with a variety of organisations. First, it builds on work for UNESCO and collaboration particularly with Borhene Chakroun and Tom Leney. Second, it reflects on work for SADC and UNESCO conducted especially with Rosemary Lugg, Seamus Needham, Suzanne Neymeyer and Joy Papier. Third, it is shaped by work presented at the UKFIET Conference on International Education and Development, and reported in a special issue of the International Journal of Educational Development that was co-edited with Michel Carton and Kenneth King (Norrage) and Kathleen Collett (City and Guilds Centre for Skills Development).

EXECUTIVE SUMMARY

The DHET Labour Market Intelligence project is one of the largest scale attempts globally in recent years to develop systems and capacity to measure the performance of post-compulsory education and training systems. As such, it offers the prospect of both contributing significantly to meeting South Africa's own developmental challenges in this regard and to our international knowledge base. In developing such a potentially significant project, it is essential that it is shaped by bigger questions of philosophy, purpose and design, rather than simply by what can be measured or what data has conventionally been collected.

Drawing on three significant international initiatives with which I have been centrally involved in the past two years, I ask three questions about the design of the project:

- what is vocational education and training?
- what is its purpose?
- what are high quality indicators of VET performance?

I suggest that the answers to these questions all offer important insights when thinking about the future direction of the DHET-HSRC project.

What is VET? I note the definitional morass in this area but suggest that we need to get beyond the narrow and old-fashioned approaches to defining, and hence measuring, VET. I highlight five important issues regarding what counts and, therefore, gets counted when we are thinking about VET measurement. These relate to a series of movable and porous boundaries between what counts as vocational rather than academic; what counts as work-related (and, hence, vocational in its most commonly understood meaning); what levels of learning are included; and what levels of formality (and what defines this) count. All of these four issues intersect with a fifth: location or setting for vocational learning, itself being transformed by the effects of globalisation, technological change, etc.

What is its purpose? I acknowledge that VET must always have a strong focus on the labour market. However, I note that the current orthodoxy regarding VET and development is inadequate in its understandings of the complexity and richness of work, learning and well-being. I utilise UNESCO's new notion of three lenses through which to view VET: the economic, the equitable and the transformative. This leads me on to argue for an approach that sees the purpose of VET as multi-faceted. I stress to attempt to construct a national VET vision through a through-going stakeholder dialogue grounded in wider national and international structures of political economy.

What are high quality indicators of VET performance? I comment on a range of technical problems that lie ahead in developing high quality indicators. I stress the need to see the process in larger terms as a necessary blend of technical and political, both with their own views on validity. I argue for the need to accept these as intertwined and the importance of building a strategy that seeks to hold the two in creative tension. I highlight the challenges that will be caused by limited capacity and the need to see the project as, in part, a process of capacity development. Finally, I call for a policy learning approach to the whole exercise.

I conclude by arguing that what counts in VET is not simple, nor is how we go about counting it when we have decided what the system is and is for. The technical and scientific in such a process is always political and power-laden. There are real dangers in taking certain concepts for granted, in underplaying the challenges of measurement, and in losing sight of wider national development aspirations and realities.

This means that there needs to be a robust debate regarding what should be measured, why and how. Moreover, this debate must be both political and scientific as it needs to build validity and plausibility of both kinds. These intertwined processes need to be firmly grounded in what is possible (politically, practically and in terms of capacities) but also aspirational in seeking to make a real difference and to build a distributed capacity to build, analyse and improve the national system.

INTRODUCTION

The DHET Labour Market Intelligence project is one of the largest scale attempts globally in recent years to develop systems and capacity to measure the performance of post-compulsory education and training systems. As such, it offers the prospect of both contributing significantly to meeting South Africa's own developmental challenges in this regard and to our international knowledge base. In developing the project, it is worth reflecting a little on the international dimension. As it is premature to look for the project's potential international implications, I will offer some recent international experiences as potential insights into some of the challenges that lie before the project.

My principal concern is that indicators and "intelligence" systems must be shaped by bigger questions of philosophy, purpose and design, rather than simply by what can be measured or what data has conventionally been collected. The latter are not unimportant, of course, and it is vital that practical decisions are made during the project. However, there is a pressing imperative that South Africa decides what it is that it is trying to achieve from its post school system before it decides on processes of data gathering, analysis and reporting.

This leads me to ask three questions in this paper:

- what is vocational education and training?
- what is its purpose?
- what are high quality indicators of VET performance?

In respect to the first question, my concerns are about definitions and boundaries. What is included in and excluded from the definition of what we are measuring, whether that be institutions, settings or levels, is crucial in any system but is particularly salient in the South African context, in which exclusions were foundational to colonial and Apartheid logics and remain deeply inscribed in inherited practices and policies, notwithstanding the efforts of the democratic era. What has been counted has depended on who has counted politically. On a more practical but nonetheless important level, there is a real danger that what counts is what it is easiest to count, and that this too reflects underlying inequalities of knowledge and power. Moreover, the post-school terrain is typically a site of particular contestations and configurations in this respect due to the usual presence of multiple ministries and agencies responsible for system performance and, hence, for intelligence gathering. In this light, the formation of DHET is a potentially important step forward as it allows, at least in principle, for a synoptic official view of the system and what counts within it. Inevitably, the creation of a common state position across the branches of DHET and the range of agencies remains a challenge and other stakeholders also need to be considered. South Africa has developed a relatively strong tradition of stakeholder involvement, yet it is apparent that some stakeholders are necessarily possessed of more power and valued knowledge than others. It is important, therefore, to ask who is involved in making accepted definitions of what is to be included, and who is excluded and with what consequences.

Turning to the second question, it is vital that we think of purpose as paramount when measuring performance. This appears self-evident but it is far from it, when looking at international experiences in this area. This will lead me to consider questions regarding the existence, or absence, of a national philosophy of VET and its relationship to wider espoused theories of development. As I have argued elsewhere (McGrath, 2012a and b) and will explore below, official VET approaches internationally are typically located in a model of development that have largely been rejected. This will lead me to consider what balance there might be between priorities of employment, equity, well-being and sustainability, to name just four major strands of the complex debate. Being clearer and more critical regarding the fundamental goals of policy is vital before performance and intelligence systems are established.

Finally, developing good indicators and intelligence systems is a complex matter, and requires a careful consideration of issues regarding the measurement of performance and the building of capacity to collect, analyse, report and use the evidence generated. In this light, I will reflect on some of the major issues that arise when trying to establish evidence-based approaches to VET.

Why am I writing of VET rather than post-school? The recent DHET Green Paper (DHET, 2012) focuses on the whole post-school system and offers a welcome response to longstanding criticisms of the South African system's problems in achieving coherence, in spite of structures such as the NQF and the HRD Strategy (e.g., Akoojee, Gewer and McGrath, 2005; Kraak, 2008; Bird and Heitmann, 2009). However, in this paper I will limit my focus to the area of vocational education and training, as this is both my own principal area of competence and the focus of important recent international developments.

I will draw on two such developments in particular. First, 2012 sees the Third International Congress on Technical and Vocational Education and Training, convened by UNESCO. The flagship document for this Congress is the World Report on TVET (UNESCO, 2012), and I will reflect on its messages from the perspective of having been seconded to UNESCO for much of 2011 to lead the writing team. Second, 2011 saw a potentially important regional development regarding VET in Southern Africa, with the SADC Ministers of Education agreeing on a five-point strategy for VET transformation in the region. Particularly significantly for the HSRC-DHET project, this strategy was grounded in a comparative review of VET in the region and, most importantly, based on the development of 18 regional indicators on VET (SADC, 2012). My standpoint on this is as the project leader. I will use these two experiences to shape my analysis in this paper and will weave together with these a third thread. In response to developments such as these, and the 2012 Global Monitoring Report on Skills, the biennial UKFIET Conference on International Education and Development in 2011 contained a strand on skills development, co-convened by the University of Nottingham, Norrag and the Centre for Skills Development, City and Guilds. Here I will draw upon the forthcoming International Journal of Educational Development special issue from this conference strand, for which I was co-editor.

This still leaves open the question of what VET means, but that, of course, is my first question, to which I now turn.

1. WHAT IS VET?

The matter of terminology does matter here. In English alone, there are a wide number of possible terms for what I am writing about, including:

- vocational education and training
- technical and vocational education and training
- workforce development
- vocational and technical education and training
- vocational education
- occupational education
- professional education
- skills development
- technical and vocational skills development,
- human capital development
- human resource development
- education and training.

I do not wish to step into the morass of these definitions, but we do need to be aware of the variability of the language and ask what work a particular formulation is doing. Clearly there are signals being transmitted in some cases about breadth or narrowness. Thus, the DHET Green Paper distinguishes in its glossary between occupational education (narrowly directed at specific occupations) and vocational education (broader learning to “enter the economy”, DHET, 2012: 1). The inclusion of training in a term often indicates a notion of something that is more instrumental, practical and workplace-based; as opposed to the more theoretical, liberal and educational institution-situated connotations of education. Thus the language used is infused with implicit views of learning, of work and of the good life.

My intention here, however, is to highlight five important issues regarding what counts and, therefore, gets counted when we are thinking about VET measurement. These relate to a series of movable and porous boundaries between what counts as vocational rather than academic; what counts as work-related (and, hence, vocational in its most commonly understood meaning); what levels of learning are included; and what levels of formality (and what defines this) count. All of these four issues intersect with a fifth: location or setting for vocational learning, itself being transformed by the effects of globalisation, technological change, etc.

Other contributors of papers to this series are better positioned to enter into a Bernsteinian account of differing forms of knowledge underpinning different types of learning. However, in practical terms, it seems apparent that we are experiencing a hybridisation of formal learning that makes traditional understandings of academic and vocational difficult to maintain. “Academic” subjects and programmes have increasingly been infected by notions of employability and core/life/key skills/competencies and both schools and universities have taken a significant instrumental turn. Yet, in a long historical perspective, this can be seen as a turn again to more traditional concerns that education is not about learning for its own sake but for a larger vocational purpose. Given the difficulty of maintaining practical distinctions between academic and vocational, it is worth looking at how UNESCO makes such a distinction in order to generate statistics of numbers of learners in vocational education. Such figures are calculated according to measurements of who is participating in vocational streams or forms of education, at lower and upper secondary. However, as the UNESCO World Report argues, such measures reflect an artificial and outdated account of what is actually going on in schooling in terms of vocational learning. Moreover, it excludes even large amounts of formal provision, in most cases counting only what is controlled by Ministries of Education. Hence, private provision and that taking place under other Ministries, including Labour, are typically excluded from the figures. This means that we need to be clear about what any new intelligence systems should be, and is, counting.

I will come back to wider human development considerations regarding the purpose of VET in the next section, but it is evident that one of the definitional issues is linked to the conceptualisation of work. Understood narrowly, vocational means preparatory for work, but what happens if the definition of work is misspecified? Our conventional understanding of work is linked to the tradition of measuring GNP/GDP as an indicator of what goes on in a country. But work is so much more: there are huge amounts of unpaid work in the household, particularly by women. Such work is essential to the welfare not just of the young or elderly or sick but also to those in paid work:

Raising children is work. Maintaining households and neighbourhoods where children and families can live safely is work. Citizen action to fight crime, industrial pollution, degradation of the environment, depletion of the ozone layer is work. Holding officials accountable and being an informed citizen is work. We don’t count any of that as work for purposes of national economic policy. (Cahn, 2000: 118)

Without this broader work, narrowly defined work could not take place, as the Apartheid state understood in its migrant labour-homelands policies. For us, the challenge is to think whether our definition and measurements of VET are also too narrow and masculinist.

For the authors of the Green Paper, “Vocational education refers to a middle level of education” (DHET, 2012: 1), implicitly placing it alongside such notions as “intermediate skills” and the further education and training band of the NQF, and in further education and training institutions. It is not “basic”, as in ABET, but neither is it “professional education”, another term offered by the Green Paper, delivered in higher education institutions. However, the assignment of learning to levels of complexity, according to knowledge or skills content, is fraught with difficulty and profoundly shaped by slow changing societal norms and attitudes and more rapidly shifting patterns of work organisation and divisions of labour. Moreover, at least in formal education, the ascription of level often owes much to the status of institution in which learning takes place. Yet, the boundary between “further” and “higher” institutions has been subject to frequent repositioning over time, and many institutions are currently deliberately straddling the boundary as it is conceived in terms of NQF levels and/or funding streams. This too has implications for any conceptualisation of a new intelligence system.

National systems of measurement of VET have tended towards only counting formal programmes in formal learning institutions. Yet, most learning takes place informally and in workplaces, community spaces and homes. Whilst we talk and write about learning societies and about the ubiquity of ICTs, we rarely capture their effects on how and where learning takes place. Globally, VET data ignores most of the reality of vocational learning.

2. WHAT IS THE PURPOSE OF VET?

As I argue in McGrath (2012a), the dominant account of VET fits squarely in what Giddens (1994) has described as productivism. He argues that in late modernity paid employment has become bracketed off from other aspects of life and given a pre-eminent place due to the enshrining of economic development as the ultimate goal of society. I go on to use Anderson (2009), who claims that VET is built on two key productivist assumptions:

1. training leads to productivity, leads to economic growth (training for growth);
2. skills lead to employability, lead to jobs (skills for work).

Indeed, I quote Anderson at length as he expands on his critique of the impoverished nature of this approach:

cast within the ethos of productivism and the ideological framework of neoliberalism, the institution of TVET is based on a restricted and instrumental view of lifeworlds which reduces people and the environment to the status of human and natural resources for economic exploitation. Such a perspective overlooks the complex and interdependent nature of human existence, the source and meanings of which are inextricably linked to the social relations, cultural practices and natural material conditions. TVET students are not only already, or aiming to become, workers. They are also human beings and citizens with a wide range of needs, relationships, duties, aspirations and interests beyond work; in the family, the local community, in civil society and the global environment. Over their life course, they give birth, raise and care for family members, consume goods and services, manage finances, fall ill, experience unemployment and hardship, elect governments, get involved in community affairs and ultimately rely for their survival on the fruits of nature. Yet in TVET they learn only to labour and produce commodities. (Anderson, 2009: 44–5)

Thus, the current orthodoxy is based in too narrow an understanding of the world, including concerns about the gendered nature of work; the environmental unsustainability of current approaches to production; and its limiting of humanity to marketised consumption and production. I suggest, following Watson (1994), that the dominant model of VET is closely related to the big push model of development of the 1960s through which a Western view of development permeated the rest of the world. VET, thus, can be seen as part of a larger system in which a monolithic model of industrialisation, modernisation and paid work was exported around the globe.

Yet, as I note in McGrath (2012a and b), this model of development is both failed and outdated. There is not space here to develop a detailed account of alternative development accounts but it is clear that there are at least two ways of reconceptualising VET for development that have some purchase already in South Africa.

First, at the level of broad development theories, there has been a shift towards approaches that stress human development, capabilities and well-being. Though some of the thinking about well-being in particular has sought to domesticate it into a somewhat more benign form of human capital theory (see, for instance, the OECD's work in this regard), there is a more radical tradition, which extends the work done by the UNDP in the human development reports and the theoretical work of Sen and Nussbaum. According to the twentieth anniversary Human Development Report:

Human development is the expansion of people's freedoms to live long, healthy and creative lives; to advance other goals they have reason to value; and to engage actively in shaping development equitably and sustainably on a shared planet. People are both the beneficiaries and drivers of human development, as individuals and in groups.

Thus stated, human development has three components:

Well-being: expanding people's real freedoms – so that people can flourish.

Empowerment and agency: enabling people and groups to act – to drive valuable outcomes.

Justice: expanding equity, sustaining outcomes over time and respecting human rights and other goals of society (UNDP, 2010: 23).

The human development and capabilities approach has not afforded much attention to VET matters yet (but see Powell, 2012) but there is potential in using it to think about what could be learnt in different VET settings and how. At present, it is in its broader sense of human development as going far beyond the economic domain and in insisting on the importance of individual agency that the approach is most valuable. By stressing the empowering nature of VET alongside the technical aspect, the capabilities approach may have significant curricular and pedagogic implications.

Echoing Sen's (1999) stress on development as freedom, Powell emphasises the centrality of learners' own aspirations and valuations in determining what VET's purpose should be and how its quality should be judged. Additionally, in applying the approach to professional learning in South Africa, Walker et al. bring attention to the capabilities to be developed by institutions in supporting their learners' own capability development (Walker et al., 2009 and Walker and McLean, 2010).¹

Second, there is a strong tradition in both South African state thinking, and in the work of the HSRC, that has adopted a human resource development approach as part of a broader democratic developmental state account. This account is more practical in nature than the attempt to develop a human development and capabilities approach, and there has been less in the way of explicit high

¹ This complements other approaches to thinking about the institutional dimension of VET reform in South Africa such as responsiveness (Cosser et al., 2003) and the employable college (McGrath et al., 2010).

level theorisation (but see the edited collection by Edigheji, 2010, for some progress in this direction). This account sees the state as an integral and legitimate actor in development in a way that is radically different from the human capital and neo-liberal inspired alternative. In terms of VET, it suggests a caution regarding key elements of the orthodoxy. For instance, in the SADC / UNESCO process (explored in further detail below), the international orthodoxy about the desirability of decentralisation and greater institutional autonomy was deliberately held in tension with an official South African position that sees potential disadvantages in these trends and which has sought to link these issues to matters of capacity (cf. DHET, 2012).

This approach also stresses the need to see the interconnectivity between policies across sectors. Thus VET policy needs to be linked to policies for schooling, growth, innovation, etc. Moreover, it places far more emphasis on issues of equity and redress than is common in human capital accounts.

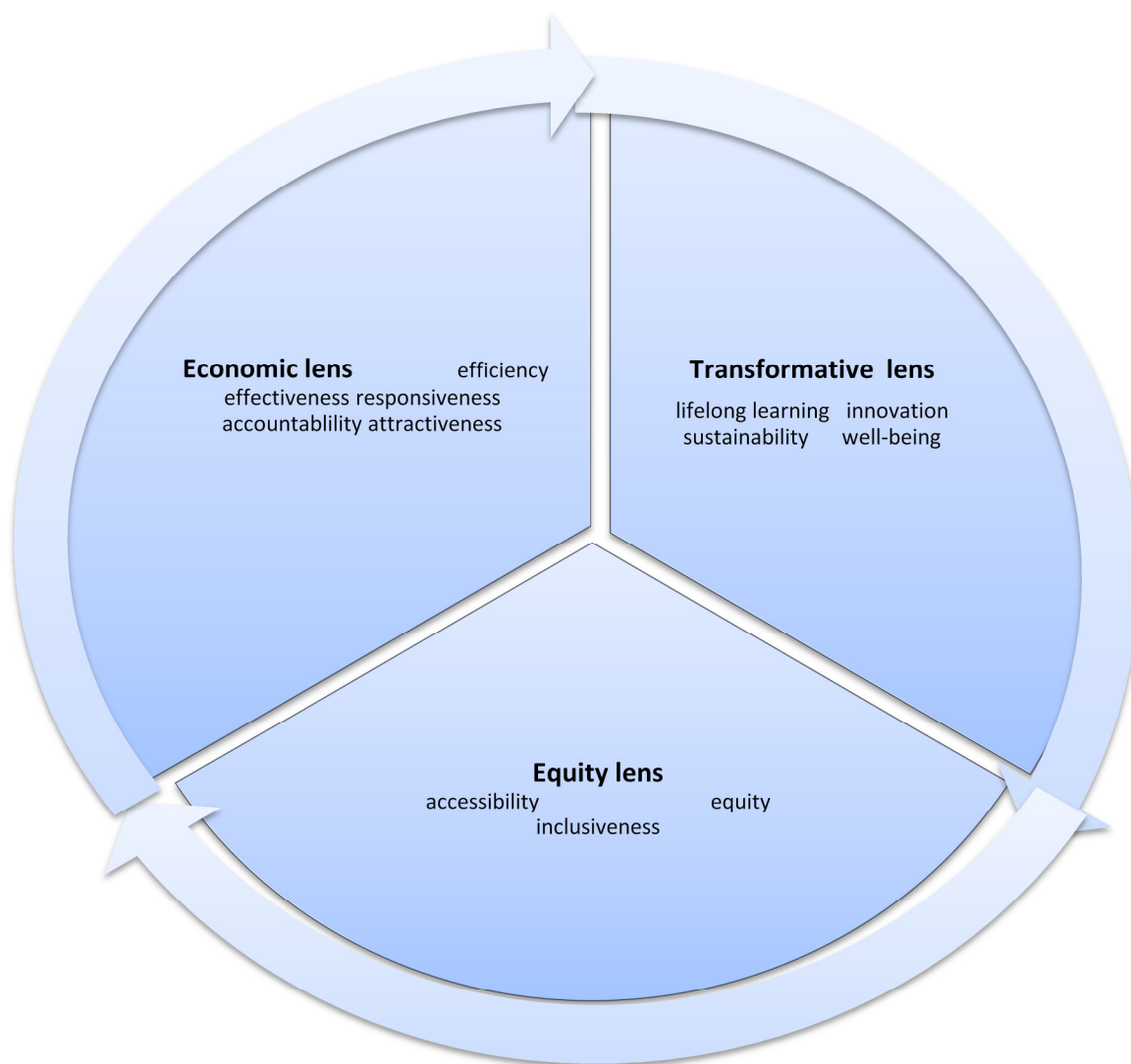
In the South African literature on VET, the positive HRD account (best exemplified by the HRD Reviews of 2003 and 2008 – HSRC, 2003; Kraak and Press, 2008) is one side of a coin, with the obverse being a more critical political economy of skills account. This draws largely on the same international theoretical resources (e.g., Maurice, Sellier and Silvestre, 1986; Ashton and Green, 1996; Crouch and Streeck, 1997; Crouch, Finegold and Sako, 1999; Brown, Green and Lauder, 2001) but places a far greater emphasis on the difficulty of transforming VET when wider societal and political-economic contexts are hostile (e.g., McGrath, 2010; Allais, 2012).

For our purposes, the most crucial message from both sides of the HRD – political economy of skills coin is the need to remember that VET reform and performance cannot be separated from wider issues of political economy. Though challenging, this must be taken account of when thinking about measures of VET performance.

A more policy-oriented approach to dealing with the complex issue of VET's purposes is provided by the UNESCO World Report. This suggests that this complexity can best be addressed by viewing VET through three lenses. It argues that policies have to be understood in terms of their potential and actual contributions to addressing inter-connected, but often contradictory, concerns. These are threefold: economy, social equity and transformation.² While the first two (economic and equity) can be seen as traditional roles of VET and have long been used as the basis for political decision making, the transformative role is being driven by the transition to more sustainable development models, and the associated need to successfully develop relevant knowledge, skills and attitudes.

² In a number of places in this text, beginning here, I am quoting from or paraphrasing the World Report. However, the text I am working from is a draft before final professional editing, high level sign-off within UNESCO and final typesetting. It is impossible, therefore, to offer paginations or to be sure whether the final text is identical to that cited here. However, the main messages summarised here are likely to be reflective of the final report.

Figure 1: VET policy lenses



Source: UNESCO, 2012.

Each of these interlocking lenses can provide an important focus for the formation, adjustment and reform of VET. The UNESCO World Report stresses that the importance given to each lens must be determined according to the national context but they need to be seen as interlocking and not as policy alternatives.

As the Green Paper correctly reminds us, VET is predominantly about preparation for, and participation in, the world of work, and it is highly appropriate to ask questions regarding the efficiency and effectiveness with which VET supports favourable labour market outcomes for learners, and the extent to which it can meet labour market demands for skills. In pursuit of the economic purposes of VET, it is also necessary to consider matters of responsiveness, accountability and attractiveness.

Here we need to consider also the complexity of language surrounding employability and employment. Although the Minister's preface to the Green Paper talks of "employment", "income generation" and "sustainable livelihoods", it is employability that has come to dominate the international debate on education. In thinking about what is being measured in the HSRC-DHET project, it is vital that there is a clear sense of what the goal(s) are here. If employability is to be on

the agenda, then it is vital that there be discussion of what this means. For instance, will employability be understood in its Anglophone and neoliberal guise of Initiative employability in which the emphasis is on successful career development through the development of skills and attitudes that can make workers both succeed in their current jobs and be able and motivated to get a better job in another organisation. Thus it is all about the individual's initiative and agency. Or might it be that the European and social democratic notion of interactive employability is borrowed, an approach which accepts the individual dimension but also considers the employability of others in the labour market, both as competitors and as collaborators in attracting new employment opportunities to an area. This account also considers the state of demand locally and labour market governance. Thus, this account locates employers and policymakers, and not just individuals, as having a role in employability development (McGrath et al., 2010). It is important that there is a clear South African vision of what employability means, if the concept is to be used, and how it relates to the massive national challenges of decent work and low productivity.

This starts to point us towards an equity agenda, the focus of the second UNESCO lens. This is constructed from the premise that VET should promote access to skills for all, regardless of class, ethnicity, age, disability or other social characteristics. This is rightly seen as a major priority in South Africa, in the light of its particular and pervasive historical legacy. If VET is to be effective in promoting equity in its interactions with the labour market, then equity has to be thought of in terms of both access and outcomes. This is important as there is a danger that VET access may only be to programmes that do not generate real improvements in labour market status, an issue that is not confined only to public providers. Equally, it may be that access to good quality initial VET becomes more equitable, but that discrimination in the labour market prevents VET graduates from realising the full social and economic potential of their learning. This means that VET performance needs to be understood within a broader societal context.

When considering equity of access, it is important to stress that inequity in VET access is also highly structured. Access to initial VET, whether public or private, depends to a large extent on prior educational attainment levels and socio-economic and other characteristics. Thus, it can serve to reward those who are already relatively advantaged. Equally, employees with higher existing levels of education and training typically get better access to further learning.

The main focus of the equity lens is developing the capacity of VET to both meet the challenge and seize the opportunity of building bridges between learning contexts and working contexts, and advancing quality through promoting access, equity and inclusion. This has important implications for thinking about VET performance measurement.

A major message of the World Report is that VET urgently needs to be transformed as many present approaches are unlikely to meet the future needs of labour markets and new generations. Crucially, it must be related to the issue of sustainable development raised above. Whilst "green skills" are part of this (and greener approaches to skills development), the real challenges of sustainability are far larger and more complex and have to do with national and international models of development, including issues of economic and social, as well as environmental, sustainability.

VET is now increasingly recognised as initiating innovation in the workplace through introducing new technical and broader skills, and also by empowering people with the capacity to be agents of innovation within enterprises. New approaches in VET institutions and in the workplace can thus play a role in initiating innovation at work by providing workers with new technical skills and developing their capacity to be innovative.

Whereas the economic and equity lenses have important functions in terms of VET systems and reforms, and may be used to assess the extent to which VET policies and systems are achieving economic and equity objectives, the transformative lens brings a forward-looking and innovative

perspective to VET policy review and development. This has very major and challenging implications for thinking about high quality VET performance indicators, the focus of the next section.

3. WHAT ARE HIGH QUALITY INDICATORS OF VET PERFORMANCE?

My argument thus far is that we can only develop high quality indicators of VET performance if we have good clarity regarding what we are measuring and why. Equally, there are epistemological and methodological issues to be considered regarding how we count what we have decided counts. In this section, I will draw on experiences gained in leading a recent SADC/UNESCO process of developing regional VET indicators (SADC, 2012) and on the wider reflections that experience has engendered (McGrath and Lugg, 2012).

From a reading of SADC policies, the project's terms of reference and international sets of indicators, the project team generated a list of more than 100 possible indicators. These were reduced to 36 based on an analytical reading of their importance for the process of VET reform in Southern Africa and these 36 indicators were then rated according to two criteria: perceived importance and potential data availability. Through dialogue with SADC and UNESCO, the list was reduced to a draft list of 18 indicators. We were concerned that this was still too long but SADC wanted to test the state of data in the region robustly and decided to use all 18 in order to explore the limits of what was possible. These 18 indicators were then refined through a workshop with the national and regional consultants and both commissioning agencies. The final set of indicators included measures of context, input, process, output and outcomes, and was reported under three principal forms:

- narrative reports,
- ordinal reports (based on criterion-referenced ordinals) and
- statistical reports.

As Lugg and I note, whilst the process can be judged largely as a success in practical terms, and the outcomes and future strategy were endorsed by the SADC Ministers of Education at their September 2011 meeting, the project raises a series of issues that are worth reflecting on for the HSRC-DHET process given its greater resourcing and timescale.

A series of questions arose for us regarding what quality might mean in terms of data and analysis in such a process. First, there is a real problem with the state of VET data internationally (SADC, 2012; UNESCO, 2012). Indeed, a UNESCO regional report on Africa (UNESCO-BREDA, 2010) argues that such data have got worse over recent years. This reflects the low status of VET, as collection of such data has been of low priority. In that light, the current DHET programme is a very significant one internationally.

This issue of the paucity of good data is compounded by the definitional problems noted above. However, lurking behind this is a reality of high levels of heterogeneity. VET is very diverse and, thus, it is very difficult to settle on measures that capture its complexity. For instance, measuring "simple" things such as enrolments, pass rates and throughput rates is incredibly complex as course lengths and modes of study vary hugely (particularly when private and enterprise-based forms are included and not just public provision), whilst pass rates are poorly applicable to competency-based

models. To produce a national figure for any such measure, as the SADC process expected, was clearly highly problematic.

Quantitative data does not exist independently of its measurement. As authors such as Schoenfeld (2006) and Gorard (2008) remind us, all quantitative data is based on professional judgements of what to measure, how to analyse it, and how to report. Some of this can be at a minute level, for instance in decisions about what to do with “outliers”. If this is true in sophisticated informational regimes, such as Britain and the USA, then there are likely to be higher order challenges elsewhere. Thus, in the SADC/UNESCO study we faced situations in which we were very concerned about the quality of the data being presented to us. Indeed, there were occasions when we faced a delicate decision regarding whether to exclude data due to our professional concerns about their validity even where these were “official” data and hence “true”.

This led us to the realisation that developing an account of a VET system is both a scientific and a political process, each with different conceptions of validity.³ The scientific validity of such a study rests on the quality of the research process used and the quality of the data gleaned. Its political validity is also built through particular methods, such as the requirement to sign off reports at political levels, through a particular political process to validate data, and through the institutional home from which the report is written, and to which it is tabled. All of these have implications for what may be reported, by whom, and when. In the DHET study, as in the SADC one, both forms of knowledge, methods and validity will need to be deployed and managed during the process.

One of the particular concerns we had to reflect on regarded our use of ordinal scales. This relates to what McGrath and Lugg term the “seductiveness of quasi-numbers”. There was clear agreement within the SADC/UNESCO process that VET reform could not be captured by statistics alone. However, there was a very strong drive, particularly from SADC, to be able to compare and contrast countries, and a belief that some kind of numbers would greatly assist this exercise. Thus, following the practice of previous SADC single issue reports on qualifications frameworks and quality assurance (SADC, 2005 and 2007), we developed a set of ordinal ratings for themes such as quality assurance, management information systems and industry involvement in VET. We attempted to establish a clear understanding that the numbers generated were the starting point of a discussion of an issue and required national reports to follow each ordinal rating with a detailed narrative justification of the grade given. However, we remain concerned that such narrative detail and complexity may be easily lost in the face of a desire to place national numbers into league tables, to create a national mean score across indicators or compare mean ratings across indicators. This is problematic for any data, but is especially so for these quasi-numbers.

By being constructed as numbers, these ratings took on an air of mathematical precision and scientific detachedness. However, they reflect complex sociological and psychological processes. In our reading of the evidence behind some of these ordinal numbers, we would have come to different ratings. In some cases, there appeared to be an optimism that the change process was simple and rapid, perhaps coupled with a political spin that wanted to talk up success. Significantly, South Africa stood out as a very different example here. South African self-ratings were often in the middle range of the SADC states. We might have adjusted these up in a number of areas if moderating the ratings across the region, but it seemed to us that these were often more realistic ratings than was the case for other countries. McGrath and Lugg suggest that this might be reflective of better data and analytical capacity in South Africa, i.e., that the South African ratings might be more scientifically reliable. However, we also noted that there might be two temporal effects at play. First, given the length and scale of the policy transformation process in South Africa,

³ In this paper, I will not get into the large and longstanding methodological debate about the worth of the notion of validity for traditions other than positivism. Obviously, the use of “scientific” is also subject to critique, but makes sense in the context of the argument being developed here.

it was untenable for national stakeholders to think that impact was quick and easy. Second, the process took place at a time when the Minister was making it clear that there were major systemic concerns, which may have given informants permission to be critical.

Indeed, McGrath and Lugg suggest that temporal effects are likely to be particularly important in the use of ordinals. In an earlier programme of evaluation of a large donor intervention, conducted by the HSRC, we saw temporal effects as evaluators revisited institutions every six months over a three year period. In some institutions, self-ratings by members of governing bodies, leaders and teaching staff started high, with respondents arguing that new policies and practices were rapidly being put in place, but later fell, with respondents apparently becoming pessimistic about the pace of change and the obstacles faced in realising institutional change.

The SADC/UNESCO study also highlighted a particular issue regarding a tendency to conflate policy and performance. On a number of occasions, and this chimes with other experiences of mine, it appeared that ratings were equating a policy debate with policy promulgation; and a policy document with policy implementation. Thus, thinking about a policy substituted in some cases for impact. This is likely to be a recurrent problem in a world where performativity and spin are so endemic.

A further issue was that of how far participants were prepared to live with uncertainty. Whilst we as academics were cautious regarding the meaning of the statistical data, it was apparent that officials were concerned to have and use “hard” statistical data. As McGrath and Lugg note, academics see risk as arising from overclaiming and over-certainty. However, for policymakers, risk lies far more in uncertainty and in the lack of clear decisions and decisive actions. The presentation of data, thus, is a process that needs to be managed between the partners in such a process.

The final section of our paper reflecting on the SADC/UNESCO project sees us consider the growing call for VET policy learning, spearheaded by the European Training Foundation (Grootings, 2004; Chakroun, 2008 and 2010). Cross-border peer learning was one of the key purposes of developing the SADC monitoring tool, and a similar approach has been used for policy learning in Europe. Since 2002, ReferNet has sought to “provide information to facilitate cooperation within a spirit of trust and to enable us to learn from one another” (Hippach-Schnieder, 2009: 28). According to the European Commission, the indicators are also to be used as a tool for understanding the reasons for differences in performance, and to support learning between countries on best practices (Dunkel, 2009). Although the present project is national rather than international, the goals of building cooperation and learning seem highly apposite.

However, whilst the language of peer learning is a very attractive one, in practice the “terrors of performativity” (Ball, 2003) are never far from the surface in policy learning. Thus, although the SADC monitoring report was expressly couched in terms of peer learning, it was evident that there were concerns that this could also be a tool for monitoring performance. We were very resistant to what we perceived as a pressure from some participants to produce a series of what could be read as league tables, but the data and analysis clearly has a life beyond our control.

I agree with Raffe (2011) in seeing policy learning as both science and sociology, an inevitably intertwined process of academic enquiry and policy process, infused with multiple forms of power that vary in their influence and intensity across the lifecycle of the learning event. I agree also with the wider body of policy learning advocates that this approach does have the potential to build a more collaborative model of policy making, including a wider range of stakeholders and proceeding through more democratic processes, thus changing the way policies are made (Raffe and Spours, 2007; Chakroun, 2008). I believe that this is the only way to approach such a process as the one envisaged under the DHET-HSRC project and that a constant bringing to mind of the intertwining of science and sociology is the path towards the generation of a politically and analytically robust process.

However, this is made challenging by the power of travelling policies. In the forthcoming IJED special issue on VET, we spend considerable time exploring the nature of the international VET toolkit (see especially McGrath 2012b). This produces a set of internationally accepted ideas of what good VET is and how it should be done. This serves further to shape the discursive, and hence practical and policy, possibilities regarding what counts in VET. South Africa has clearly been influenced by this flow of ideas (cf. McGrath and Badroodien, 2006; McGrath, 2010) but the recent Green Paper also demonstrates a strong sense that South Africa can think beyond the global orthodoxy.

This leads on to the final issue in this section: capacity. A major concern of both the SADC and UNESCO reports is that there is little VET capacity in most countries, for data generation and analysis, for research, for institutional development and for policymaking. Whilst South Africa is relatively well-endowed in this regard, it is important that the HSRC-DHET project be also understood and planned from a capacity development perspective. This implies both a realism regarding what intelligence can be gathered and analysed and an ambition to use the process to build sustainable capacity across stakeholders.

CONCLUSIONS

In this paper I have reflected on three processes in which I have been involved in thinking about VET in the past two years; offered three lenses for viewing VET's purposes; and raised three questions that seem pertinent to the DHET-HSRC project. At the heart of my argument is the claim that what counts in VET is not simple, nor is how we go about counting it when we have decided what the system is and is for. The technical and scientific in such a process is always political and power-laden. There are real dangers in taking certain concepts for granted, in underplaying the challenges of measurement, and in losing sight of wider national development aspirations and realities.

This means that there needs to be a robust debate regarding what should be measured, why and how. Moreover, this debate must be both political and scientific as it needs to build validity and plausibility of both kinds. These intertwined processes need to be firmly grounded in what is possible (politically, practically and in terms of capacities) but also aspirational in seeking to make a real difference and to build a distributed capacity to build, analyse and improve the national system.

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ANNEXURE A:

THE SADC / UNESCO INDICATORS

	Indicator	Sub-indicators
0	National socio-economic context	Economic Demographic Labour Market Education
1	The Place of TVET in Overall National Development Strategies and Policies	Narrative report to include 1.1 Discussion of TVET in overall national development policies and/or strategies 1.2 Discussion of TVET in skills development policy and/or legislation 1.3 Discussion of TVET in education policy and/or legislation 1.4 Existence and detail of current policies on TVET 1.5 Evidence that new TVET policies are in development
2	Policies on TVET for the informal economy	Narrative report to include: 2.1 Existence of specific policy for the informal economy or one for SMEs (Small and Medium Enterprises) that explicitly includes a consideration of the informal economy 2.2 Such policies stress the importance of TVET for the informal economy 2.3 There are specific programmes of TVET for the informal economy 2.4 There are funding streams for TVET for the informal economy 2.5 Discussion of evidence of enactment of policies
3	Policies on articulation with schooling/post-secondary/higher education	Narrative report to include: 3.1 Student admission criteria exist for entrance of TVET students to higher education (progression).

		<p>3.2 Differences between academic schooling and TVET qualifications in terms of accessing higher education are noted.</p> <p>3.3 There is learner mobility between TVET, academic schooling and higher education (transfer).</p> <p>Points that may be included if information is available:</p> <p>3.4 Access to higher education for graduates of TVET with foreign diplomas</p>
4	State of the development of the national qualifications framework	<p>Ordinal scale</p> <ol style="list-style-type: none"> 1. little evidence of co-ordination and planning 2. system being actively planned 3. policies in place but partial evidence of implementation 4. policies in place and implementation progressing 5. mature system
5	State of the quality assurance system in TVET	<p>Ordinal scale</p> <ol style="list-style-type: none"> 1. Quality assurance system in flux. Agreement being sought on future steps. 2. Agreement on what the quality assurance system should entail with initial steps taken towards establishment. 3. Basic quality assurance system in place, including quality assurance body/bodies responsible for TVET 4. Quality assurance system is in place 5. Advanced quality assurance system in place in TVET with a mechanism for co-ordination and coherence as well as regular review and monitoring.
6	State of the national governance and co-ordination system for TVET	<p>Ordinal scale</p> <ol style="list-style-type: none"> 1. Little evidence of co-ordination and planning in TVET 2. Co-ordination and reform of TVET system being actively planned 3. Policies for co-ordination and governance of TVET in place and

		<p>implementation in early stages</p> <p>4. Policies in place and implementation progressing</p> <p>5. Mature governance system for TVET</p>
7	State of national TVET-MIS	<p>Ordinal Scale</p> <p>1. TVET-MIS data largely unavailable and/or little evidence of systematic data collection:</p> <p>2. Official prioritisation of TVET MIS and beginning of systematic data collection:</p> <p>3. Basic data collected and reported on but with large gaps / concerns about quality:</p> <p>4. Relatively comprehensive collection, quality control and use</p> <p>5. Sophisticated system including forecasting</p>
8	State of institutional governance in TVET	<p>Narrative report to include discussion of</p> <p>8.1 National policy on institutional governance in TVET: for example no institutional autonomy and highly centralised system OR highly decentralised system with strong local autonomy; national governance of both public and private providers, or only of public provision;</p> <p>8.2 Proposed mechanisms for institutional accountability to national policy objectives;</p> <p>8.3 Proposed areas for institutional autonomy (if relevant);</p> <p>8.4 The state of institutional governance in:</p> <ul style="list-style-type: none"> • public providers • private providers <p>8.5 Capacity for, and practice of, institutional governance across key areas:</p> <ul style="list-style-type: none"> • institutional planning • implementation • allocation of resources • curriculum design and development • assessment

9	Extent of employers' role in TVET	<p>Ordinal scale</p> <p>1 Very limited evidence of employer engagement</p> <ul style="list-style-type: none"> • in policymaking and implementation strategies • in standards and/or curriculum development • in M&E activities • in funding • willingness to offer work placements <p>2 Some employer across the above areas but neither systematic nor legislated for</p> <p>3 Significant and formalised employer involvement at either provider institution or national levels in some of the given sub-factors</p> <p>4 Significant and formalised employer involvement at either provider institution or national levels in most of the given sub-factors</p> <p>5 Significant and formalised employer involvement at both provider institution and national levels in most of the given sub-factors</p>
10	Total enrolments in TVET	<p>10. 1 Total public TVET enrolments</p> <p>10.1.1 Total female public TVET enrolment</p> <p>10.1.2 Total male public TVET enrolment</p> <p>10.2 Total private TVET enrolment</p> <p>10.2.1 Total female private TVET enrolment</p> <p>10.2.2. Total male private TVET enrolment</p>
11	Pass rates	<p>11.1 Public pass rate</p> <p>11.1.1. Female public pass rate</p> <p>11.1.2. Male public pass rate</p> <p>11.2. Private pass rate</p> <p>11.2.1. Female private pass rate</p> <p>11.2.2. Male private pass rate</p> <p>11.3. Pass rate by NQF level</p> <p>11.3.1. Public pass rate by NQF level</p> <p>11.3.2. Private pass rate by NQF level</p>
12	Throughput Rates	<p>12.1 Public throughput rate</p> <p>12.1.1 Female public throughput rate</p> <p>12.1.2 Male public throughput rate</p> <p>12.2 Private throughput rate</p> <p>12.2.1 Female private throughput rate</p> <p>12.2.2 Male private throughput rate</p> <p>12.3 Throughput rate by NQF level</p> <p>12.3.1 Public throughput rate by NQF level</p> <p>12.3.2 Private throughput rate by NQF level</p>

13	TVET Destination Rates into Employment TVET Destination Rates into Employment	13.1 learner employment rate 6 months after graduation 13.2 learner employment rate 2 years after graduation 13.3 learner employment rate after 6 months in employment related to their programme of study
14	Total TVET instructional staff	14.1. Headcount of all TVET instructors (full-time and part-time) 14.1.1 Headcount of public TVET instructors 14.1.2. Headcount of private TVET instructors 14.2. Full time equivalent number of TVET instructors 14.2.1 Full time equivalent number of public TVET instructors 14.2.2 Full time equivalent number of private TVET instructors
15	Number of providers that provide TVET instructor training	15.1. Number of providers 15.1.1. Number of providers who provide both Initial Teacher Education (ITE) and Continuing Professional Development (CPD) 15.1.2. Number providing ITE only 15.1.3. Number providing CPD only
16	Number of students enrolled in programmes for TVET instructor training	16.1 Total TVET instructor training enrolment (for recognised professional qualification whether pre- or in-service but excluding other forms of Continuing Professional Development (CPD)). 16.1.1. Female TVET instructor training enrolment 16.1.2. Male TVET instructor training enrolment 16.2. TVET instructor training enrolment by NQF level 16.3. TVET instructor training enrolment by field 16.3.1. Female TVET instructor training enrolment by field 16.3.2. Male TVET instructor training enrolment by field
17	Expenditure on TVET	17.1. Public expenditure on TVET 17.2 Proportion of education budget that is allocated to TVET 17.3 Private expenditure on TVET (enterprise) 17.4 Private expenditure on TVET (household)