

Skills – An Overview

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Introduction

Molweni, good morning. Thank you for the invitation to address this important Eastern Cape indaba on skills.

A useful point at which to enter discussion on 'skills' and South Africa's 'skills shortage' is through Lewis Carroll's *Through the Looking Glass*. Here, Humpty Dumpty says "When I use a word, it means just what I choose it to mean, neither more nor less." "The question is," says Alice, "whether you *can* make words mean so many different things." "The question is," says Humpty Dumpty, "which is to be master - that's all."

Type the word 'skill' and open the Microsoft thesaurus and you will find 'skill' defined as: 'ability, talent, cleverness, dexterity, expertise, proficiency, skillfulness, handiness, knack, aptitude, competence and flair'. This well raises the problem: for while there is much reference in South Africa to 'skills' and 'skills shortage', it is not always entirely clear to what precisely this is a reference.

Discourses on 'skills'

Three discourses on 'skills' can be identified.

One discourse around 'skills' is to refer entirely to specific technical capabilities. Here, there is a bemoaning of the dearth of competent people with specific technical capabilities in certain areas of the economy and at certain levels of the occupational structure – electricians, plumbers, welders, brick-layers, plasterers, tilers, machinists, mechanics, tool-makers and the like. Accordingly, priority is accorded to the development of people with specific technical capabilities for particular levels of the occupational structure and areas of the economy – both in quantitative terms and in terms of the quality of technical capabilities.

Another discourse around 'skills' extends the concern around the shortage of 'skills' to the dearth of competent people with the technical capabilities also required to undertake various

professions – in construction, engineers, architects, quantity surveyors, project managers, in health, surgeons, general practitioners, therapists and nurses, in financial services, accountants, actuaries and economists, and so on.

The similarity between the two discourses is that both are preoccupied with technical capabilities, and differ only in the levels of the occupational structure and areas of the economy that they emphasise.

In a third discourse, 'skills' and the skills shortage is used as a short-hand to refer to not only the need to develop technical capabilities but *also* the need to more generally develop the knowledge, expertise and attitudes that are needed by people to participate in and enhance economic and social development.

Here, in as much as it is recognized that the lack of competent people with the requisite technical capabilities is a brake on economic and social development, it is not taken as self-evident that developing 'skills' or technical capabilities alone is a sufficient condition to address our socio-economic challenges and enhance economic and social development.

In contrast with those who punt skills development as a solution to our economic and social challenges, in this third discourse there is an understanding:

- That skills and technical capabilities is not the only issue
- That also in question, and distinct from skills and technical capabilities, are *knowledge, expertise* and *attitudes*, and
- That the education, training and development of people must therefore be approached from the perspective of the overall and particular *configurations* of knowledge, expertise, skills and attitudes that are needed by our economy and society.

Here, there is also

- An appreciation of the difference between skills, knowledge, expertise and attitudes

- A recognition that there is also a difference between training and education and that it is not helpful to either obfuscate or obliterate the difference between training and education, and
- An understanding that economic and social development entail considerably more than simply the technical skilling of people.

To return to Humpty Dumpty and Alice "The question", as Alice says, is "whether you *can* make words mean so many different things". I want to suggest that it is not helpful to use the term 'skills' in so many different ways – it neither clarifies the concept 'skills' nor distinguishes between skills and other qualities such as knowledge, expertise and attitudes that are equally important constituents of competent people.

Knowledge, skills and attitudes

Let us proceed by agreeing that for economic and social development we require competent people. Such competent people need to possess different kinds of competences – 'cognitive' competence (knowledge), 'functional' competence (skills) and "personal and social-attitudinal competence" (2006:1). The well-known 'Bloom's taxonomy' is similarly "based on three domains of educational activities: cognitive, affective and psychomotor....The cognitive domain relates to mental skills (knowledge), the affective domain for growth in feelings or emotional areas (attitudes), while the psychomotor domain is concerned with manual or physical skills (skills) (2006: 7-8).

1. To begin with *knowledge*, or cognitive competence, this encompasses the acquisition and recollection of information and data, the interpretation of data, understanding of meaning, theorization, application of concepts, analysis, synthesis evaluation, and the like.

It is suggested that "two types of learning" are involved: "'single-loop' learning about obtaining knowledge to solve specific problems based on existing premises; and 'double-

loop' learning about establishing new premises such as mental models and perspectives" (2006:6).

Knowledge "is... the result of an interaction between intelligence (capacity to learn) and situation (opportunity to learn). Knowledge includes theory and concepts, as well as tacit knowledge gained as a result of the experience of performing certain tasks (2006:7)".

There are different dimensions to knowledge:

- Know-that – which is acquiring "explicit factual knowledge"
- Know-how – which refers to "procedural knowledge" but "is often associated with tacit knowledge" and
- Know-why – which can be termed "understanding (and) refers to more holistic knowledge of processes and contexts".

It is "often argued that acquiring explicit factual knowledge" has to "precede developing procedural knowledge, which relates to using knowledge in context" (2006:7).

2. Moving to *skill*, "skill has been defined as: goal-directed, well-organised behaviour that is acquired through practice and performed with economy of effort". Skill "is usually used to refer to a level of performance, in the sense of accuracy and speed in performing particular tasks" - thus we may speak of a "skilled performance" (2006:7) – although when it comes to a Bafana player, that is a phrase that we use very rarely.

Performance at a certain level or skill requires "both physical psychomotor abilities" – without which it would be difficult to perform at certain levels - and also "mental cognitive abilities". With respect to these cognitive abilities we can refer to "cognitive skills such as problem-solving and decision-making", which rather than knowledge are skills. The ability to "operationalis(e) knowledge" can also be considered as "part of developing skills" (2006:7).

3. As far as expertise is concerned this is “typically... acquired through many years of intensive, deliberate practice in a particular domain” (Winterton et al, 2006). A particular configuration of knowledge, skills, and other capabilities characterises those that can be considered to be experts in specific fields.

It is important to note that:

- “The idea that generic (knowledge and skills) are transferable across different knowledge domains has been widely questioned and regarded as mechanistic and reductionist” (Winterton et al, 2006:8)
- The level of competence “is a characteristic not only of a person but also of a context; people do not have competences independent of context” (Winterton et al, 2006:8)
- The performance of people is not only related to their capabilities but also shaped by environments, organisational settings, institutional cultures and interaction with others.

This is precisely why inclusive, embracing institutional cultures that value, respect and affirm creativity, difference and diversity are so important. Too many capable men and even more capable women are incapacitated by unfavorable institutional cultures.

In summary, if our challenge is to produce competent people who can contribute to economic and social development:

- We need to understand that “competence is...multifaceted, holistic and integrated” and comprises of cognitive, functional and social competences
- We need to give attention to cultivating through education, training and development initiatives and interventions *knowledge, skills and attitudes* in the appropriate combinations and configurations required for specific occupations and professions.

This implies that we must distinguish between general and generic knowledge and “generic skills (communication, writing and presentation skills, numeracy, IT) and “domain-specific knowledge and skills”, which may also be more specialised or “knowledge and understanding appropriate” for specific occupations and professions (2006: 13).

- We need to appreciate that that “it is not simply knowledge and skills that matter but also their application” in different occupational, workplace and social contexts (Winterton et al, 2006: 13).

The South African context

I wish to now turn to the South African context.

First, it is important to recognize that the South African economy and labour market is highly differentiated. This means that the shortage of appropriately educated and trained people that we experience is varied and diverse.

Second, it is also necessary to recognize that the shortage of competent people is both *quantitative* and *qualitative* in nature – that is to say, our challenge is both the quantity of competent people and also people with the requisite qualities that constitute one as competent.

This requires effective responses from a range of institutions – the state, business, and, of course, schools, further education and training colleges, higher education institutions and various other education and training entities.

Permit me to illustrate this with an example.

It is suggested that currently the information and communication technology sector (ICT) is experiencing a shortage of 30 000 people. Now in some quarters this is blamed on higher education and taken as evidence of the lack of responsiveness of higher education to the economic and labour needs of our country.

Yet, it is false to conclude that this is either the fault of higher education or to assume that higher education can and must do something about this. It is possible that the shortage of the 30 000 people could be entirely satisfied by the effective training of people in National Qualification Framework (NQF) level 4 qualifications, which are *not* provided by higher education institutions.

Similarly, if the engineering sector is experiencing a shortage of 10 000 people, it cannot be assumed that this requires higher education institutions to produce 10 000 more graduates. The problem could well be resolved with no involvement of higher education institutions.

On the other hand, it could be that of the 30 000 people required for the ICT sector and the 10 000 needed by the engineering sector, x thousand and y thousand respectively require capabilities that can only be provided by qualifications at NQF level 5 and above, including certificates, diplomas, and bachelors, honours, masters and doctoral degrees. In this case, clearly higher education institutions have an important role to play and contribution to make.

The lesson is that instead of jumping to unhelpful and perhaps dangerous conclusions about the shortage of personnel and its resolution, it is vitally necessary that we think clearly about the kinds and nature of shortages that we experience. Only then can we have effective responses to the shortage of competent people. That is to say, in the context of a labour market that is highly differentiated and comprises of many different kinds of occupations and jobs, we must become much more specific about the levels and kinds of capabilities that are required at different levels of economic and social activity. Only then, can we properly consider the kinds of institutional responses and interventions that are required.

It is important that we also distinguish between person-power shortages of a *quantitative* nature and shortages that are *qualitative* in character. In so far as we may speak of a *quantitative* shortage of person-power, this refers to the problem that there are more vacancies that require people with

knowledge, expertise, skills and attitudes that are produced by education and training institutions and initiatives than there are the competent people to fill these vacancies.

As far as the *qualitative* shortage is concerned, this could refer to two kinds of problems. The first is that for various reasons the people that we are producing unfortunately lack the particular knowledge, expertise and skills that are required for effectively and efficiently undertaking specific professions.

Equally important, is that we may be producing people that lack the values and attitudes that are appropriate for both economic development and a constitutional, non-racial and non-sexist democracy that proclaims its determination to uphold the dignity of all people.

To the extent that such people find employment, it could be a case more of private benefits for these individuals than public benefits for society.

There is, however, also another dimension of the qualitative shortage. This is that currently there are people employed in the private and public sectors that lack, in varying ways and to differing degrees, the specific kinds of knowledge, expertise, skills and attitudes that are essential for them to effectively and efficiently undertake their professions and jobs.

In so far as the public sector is concerned, the existence of such people retards the building of a developmental state, constrains the capability of the state to promote economic and social development and to discharge its constitutional and legal responsibilities.

With respect to the *quantitative* shortage of competent people needed for the economy and society, there are three challenges:

- First, we must develop the ability to effectively identify the scope, size, arenas and nature of the shortages that are being experienced by the public and private sectors.

- Second, we have to develop creative strategies to address the immediate needs that exist, while we at the same time giving attention to medium- and long-term person-power needs.
- Third, we need to forge the partnerships that are necessary and mobilise the resources that are required for producing the competent people needed by the public and private sectors.

In so far as the *qualitative* shortage is concerned, there are also three challenges:

- First, to the extent that our education and training institutions and initiatives may be producing people that lack certain kinds of knowledge and skills and also possess inappropriate values and attitudes, it is vital that we openly and honestly identify our key weaknesses and shortcomings and find ways of addressing these as a matter of urgency.
- Second, we must effectively identify the kinds of capabilities that people in employment lack, the key economic and social fields in which this is a pressing problem and the numbers in the public and private sectors that require support; and
- Third, given that capabilities are not fixed but can be built and developed, we must devise creative strategies for effectively building the capabilities of people already in employment.

In the case of both the quantitative and qualitative shortage of competent people it is important that we have a long-term view. The shortages of competent people will not and cannot be solved overnight and by quick fixes. It requires as a matter of urgency high quality education and training institutions and programmes – the key challenge is institution-building: developing and enhancing institutional capacities and the capabilities of the people that occupy institutions.

In terms of this, a major challenge is to effect significant improvements in the quality of schooling. We have almost

universal enrolments in our primary and secondary schools. However, as has been noted, the harsh reality is that enrolments do not mean attendance and attendance does not mean learning. 20% of our secondary schools produce 80% of the students who are eligible to attend universities. These are not issues that will be resolved overnight – but we simply must show greater determination and political will.

Here it is important to confront a popular notion: namely, that our country will be best served if in our educational institutions we emphasise technical ‘skills’ development and prioritize professional, vocational and career-focused qualifications and programmes.

It is not in dispute that our schools, colleges and universities must effectively prepare students for the needs of our economy. Our students must be able to cope with the considerable and ever-changing demands of the work place. They must be smart, creative, adaptable, learn quickly, and have a work ethic if they are to effectively contribute to a developmental state and support our firms, enterprises and economy to be globally competitive and navigate the challenges of globalisation.

However, a purely utilitarian and instrumental approach to education which seeks to entirely or largely reduce its value to its efficacy for economic growth is misguided and extremely dangerous. This completely misunderstands the value of education and denudes it of its considerably wider social value and functions.

In the *Financial Times* of 1 February 2007 Martin Wolf writes: “We talk as if nothing mattered except the country's ability to create material wealth” and criticizes Britain's skills agenda and its “emphasis on practical utility”. He goes on to say:

This narrow agenda now dominates policy for education and training. What, the reader might ask, is wrong with that? Why should anybody pay attention to airy-fairy notions of education for its own sake? The answer is straightforward: these attitudes represent not merely a

confusion of means with ends. They represent a perverse placing of means above ends.

Education is also a goal in its own right. If we must put this in economists' language, we can say that understanding is a form of wealth.

Wolf goes on to add:

All this, however, today's depressingly utilitarian debate implicitly rejects. Thus the reason for compelling young people to stay on in school...is to make them not wiser or even better citizens, but more productive. Yet to glory in the utilitarian over the fulfilling, and in practical knowledge over understanding, is more than a mistake; it is perverse.

This is financial correspondent who displays great insight – who understands that education has intrinsic significance as an engagement around humanity's intellectual, cultural and scientific inheritances and around our understandings, views and beliefs regarding our natural and social worlds; and that education is also intimately connected to the idea of democratic citizenship and the "cultivation of humanity" (Nussbaum, 2006:5).

We would be extremely myopic, in the light of our colonial and apartheid past, if we for a moment imagine that the economy does not require people who are also deeply human and sensitive to issues of difference and diversity and social equity and justice. As the Vice Chancellor of the University of Western Cape, has put it, we are also "tasked with the arduous formation of a critical, creative and compassionate citizenry" (O'Connell, 2006).

Conclusion

In conclusion I have three pleas.

The first is that with respect to the 'skills', and in response to Alice's question "*can* you make words mean so many different

things", we answer 'No'. Instead, the discourse we should cultivate is one that speaks of *knowledge, skills and attitudes* in response to the challenge of preparing competent people for different economic and social activities.

The second plea is that as much as skills matter, we recognize that knowledge and understanding also matter crucially, and that we begin to value and show greater appreciation for knowledge. This plea is especially directed at politicians and business persons and more generally at those who yearn for quick-fix solutions when there are none.

The third plea is that while we must insist that our education and training institutions are responsive, the responsiveness demanded must not only be economic in nature but also social, cultural and intellectual. This means that they must produce competent people who are both technically capable *and* ethical and compassionate in character, with an understanding of their constitutional obligations and citizenship responsibilities.

References

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