

Towards quantifying the number of FET college educators that require up-skilling in South Africa

1. Introduction

The original brief was to provide an indication of the number of FET staff that are in need of up-skilling in the Western Cape Province, and in South Africa. Within a day of this, came the request to develop a concept document for the development of TVET practitioners more broadly, i.e. encompassing both education institutions and industry (public and private). This development necessarily impacts on the demand for TVET practitioners in terms of the emerging UoN-CPUT partnership, and the total number of individuals that could require up-skilling. This report should therefore be read conjunction with the concept document “Ensuring that trainers of occupational qualifications are appropriately equipped”, October 2007.

The impetus behind the concept paper on TVET practitioner development arises from the current initiative in the Department of Labour to establish a quality council for trades and occupation. Concomitant with the drive to produce large numbers of artisans and technically skilled workers has been the somewhat belated recognition that this process must be underpinned by a cohort of competent trainers and educators.

Accepting that VET education is not restricted to the FET colleges and that there are industry-based training initiatives, this attempt to quantify size of the market for re- and up-skilling TVET professionals has been extended beyond the public FET college sector.

2. Data sources

At the onset it must be pointed out that there is a dearth of accurate and consistent data. The data used in this report have been drawn from a range of sources (listed at the end of this paper), including personal conversations with researchers working in the sector, as well as from information collected in the course of work on this project for the University of Newcastle.

3. FET College Sector

As noted, sourcing accurate information on staffing numbers and qualification levels in the sector is well nigh impossible. Individuals with whom the issue was raised, all indicated that figures emanating from the Department of Education and the Education and Development Practices SETA are inaccurate¹. Reasons cited for this include

- no consistency of data stratification/categorisation or collection in the various provinces
- inadequate or absence of definitions. For example

¹ Personal discussions with Seamus Needham, Further Education and Training Institute, UWC; Dr Jeanne Gamble, member of the team responsible for research into FET educator policy; Debbie Machard, technical advisor to GTZ, and member of the Department of Labour’s QCTO task team.

- what is the difference between a “training and development professional” and a “technical teacher or trainer”?
- what is the connection between assessors, facilitators and trainers?

Equally, it has been difficult to source figures for the Western Cape Province, specifically. The figures presented below should be read with the above caveats in mind.

3.1. FET Colleges

There are currently 50, multi-site FET Colleges in South Africa which are the result of a process of merging 152 technical colleges. Of these, there are six in the Western Cape Province, and five of these are within a 200km radius of Cape Town. One has its main campus in George, which is more than 400km from Cape Town, along the south coast.

Currently, it is from these six colleges that the Cape Peninsula University of Technology (CPUT) draws students. CPUT staff have indicated a willingness to extend the faculty’s reach beyond the borders of the province, recognising that this may require utilising new modalities for delivery.

3.2. Teaching/Lecturing Staff

In 2000, there was an average of 2,774 full time equivalent learners in each of the colleges (Powel & Hall in Akoojee, Gewer & McGrath, 2005).

Table 1: Total national cohort of FET Staff (circa 2000)

Total number of teaching staff	6,756	
Number under or un-qualified	829	(12%)

Source: Department of Education, 2002

The ETDP SETA estimates that the FET College sector will require an additional 4,230 vocational education and training educators over the next 5 years (ETDP SETA, 2007).

A survey, conducted by the Department of Education (2004) reported that 8% of all teaching staff at FET colleges had less than a diploma. Table 3 disaggregates this further.

Table 2: Lack of qualification by learning area/field

Percentage with less than diploma	8%
Of this percentage, Engineering	64%
Of this percentage, Business Studies	6%

Source: Department of Education, 2004

This survey also noted that SETAs require trainers to have appropriate industry qualifications, and because FET colleges also offer industry-related training, these qualifications were included in the survey.

Table 3: Percentage of staff with industry qualifications

Staff with trade certificates (Engineering and Utility Studies)	27%
Engineering staff with trade certificates	55%
Utilities study staff with trade certificates	27%

Source: Department of Education, 2004

In addition, the following gaps in knowledge and skills were identified in relation to teaching and management:

Table 4: Generic knowledge and skills gaps

• how to deal with the demands of new curricula
• fresh management approaches *
• new service delivery approaches and modalities

*It is assumed that this includes classroom management, even though this was not stated.

The DoE (2004) notes a proposed a four-dimensional model for conceptualising curriculum responsiveness. Three of these dimensions are particularly pertinent for this paper, viz:

- a good understanding of education principles and practices
- subject matter expertise
- appropriate industry qualifications, or at least sufficient exposure to the workplace to ensure a link between theory and practice

Interesting to note that FET teaching staff interviewed for the survey particularly highlighted the first two, as well as the following:

Table 5: Knowledge and skills gaps identified by FET teaching staff

• understanding the NQF
• assessment
• staying current in their fields of expertise
• curriculum and materials development (including responsiveness to local demands)
• learner support (including guidance and counselling)
• dealing with second language learners and cultural diversity

These themes (tables 4 and 5) were echoed by CEOs of the FET Colleges in the Western Cape² in June 2007.

The above reflects the tension between the need for subject matter expertise, reflected in industry/occupational qualifications and the need for pedagogical knowledge and practice.

4. Industry

It is unlikely that there has been any credible survey of industry-based training and how it is staffed.³ The current functions of the sector education and training authorities (SETAs) includes quality assurance of training, including setting criteria for training practitioners. As noted in 3.2 above, and in the paper, "Ensuring that trainers of occupational qualifications are appropriately equipped", industry-based trainers are not necessarily required to have education and training knowledge and skills. However, recent reports emanating from a number industry or private sector sources suggest a shortage of not only of trainers, per se, but a shortage of **competent** trainers.

4.1. Government (other than the Department of Education)

In 2007, the Development Policy Research Unit at the University of Cape Town commissioned an investigation into spare capacity in government, and government-owned entities for the training of artisans. Within the three spheres of government (national, provincial and local), significant capacity was identified, in terms of infrastructure (space) with as much as 50% of the capacity not currently in use.

4.2. State owned enterprises

State-owned enterprises, include, but were not limited to, Transnet (which includes the railways, port authorities and South African Airways), Eskom (electricity supply) and MetroRail. These enterprises will require ±8,500 artisans over the next five years, and to achieve this, will have to double their current training capacity. Transnet, alone, requires an additional 29 instructors and is considering training up artisans to fill this role (Grawitzky, 2007)

The prevailing theme that emerges is **the lack of qualified technical instructors.**

² Discussion with UoN in-country representative, on 15 June 2007, facilitated by the Western Cape Education Department.

³ Presenting a significant research opportunity

4.3. Private Sector

Grawitzky (2007) presents the following estimates of artisans in training, in a number of sectors:

Table 5: Artisans currently in training (private sector/industry)

Sector	currently in training (all levels)	required per annum (where available)
Mining	<800	additional 350 ¹
Metal	3,376	
Auto & Motor Industry	3,720	
Chemical and other industries	1,400 ²	
Construction	not available ³	
1 Because of increased demand for platinum 2 Of which, 600 are being trained by Sasol 3 Likely to be substantial because of the current building boom which has been further bolstered by infrastructure development associated with the build-up to the Soccer World Cup in 2010.		

The conclusion to this report notes

A shortage of qualified technical instructors has emerged as an impediment to increasing training capacity....(The same is true for workplace assessors and mentors)

Grawitzky, 2007, p 23

This view is echoed by a recent report on the skills crisis published by the Centre for Development Enterprise. A survey of 40 companies, ranging in size from multi-national to small enterprises, across sectors, but predominantly in manufacturing and mining, was revealing. Of those that offer training, 50% reported difficulty in finding trainers, and further added that assessors (from the SETAs) are poorly trained and that training tends to be too theoretical.

5. Conclusion

While the original brief or request was a simple “how many....?” the exercise proved difficult when it came to finding accurate numbers. What it has revealed, in conjunction with the development of the concept document for TVET practitioner development, is that the potential scope for training TVET practitioners is extensive. Although policy has not yet been formulated for the FET colleges, corridor discussion suggests that the UoN’s B.Ed (TVET) model has great appeal within both the Departments of Education and Labour, as well as the ETDPSETA. Particularly attractive is the partnership with the University of Newcastle Faculty of Education and Arts and the learning that comes with it. This could have the effect of leveraging funding for the development of curricula and programmes in South Africa, providing the support for faculty and programme development about which CPUT and UoN have both expressed concern.

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