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# **Pathways through the education and training system: Do we need a new model?**

## **Abstract**

Analyses conducted by the Education, Science and Skills Development (ESSD) research programme at the Human Sciences Research Council (HSRC) reveal major obstacles in the education pathway system. The majority of learners entering Further Education and Training (FET) colleges, nursing training institutions and learnerships have already achieved National Senior Certificates prior to enrolment. Higher Education is seen as the only viable option for further learning, contributing to the inverted triangle phenomenon in which a small FET college system plays second fiddle to a much larger higher education system struggling to retain inadequately prepared students. There is similar misalignment at the education-labour market interface. ESSD studies have revealed that similar percentages (around a third) of FET college graduates are employed, unemployed and not economically active (NEA), and that nearly a third of grade 12 learners are unemployed or NEA a year after school. Against this backdrop, this paper proposes a new model for student progression that broadens learning opportunities at the intermediate level.

Key words: pathways; further education and training; higher education; progression; articulation; obstacles

## **Introduction**

The South African Qualifications Authority (SAQA)-spawned legislation of the 1990s (RSA, 1995; RSA, 1998) set the parameters for a new education and training pathway model for South Africa. In essence this model comprised:

- Three bands: General Education and Training (GET); Further Education and Training (FET); and Higher Education and Training (HET)<sup>1</sup>
- Eight levels: level 1 constituting the GET phase; levels 2-4 constituting the FET phase; and levels 5-8 constituting the HET phase; and

- Qualifications within the three bands that articulate with one another: a General Education and Training Certificate (GETC) at the exit point of the GET phase; a Further Education and Training Certificate (FETC) at the exit point of the FET phase (with the achievement of unit standards at National Qualifications Framework [NQF] levels 2 and 3); and certificates, diplomas and degrees – with notional learning hours of 120, 240 and 360 credits respectively attached to them – in the HET phase.

At the same time, the post-Apartheid dispensation has seen various changes in the institutional landscape. Technical colleges have been replaced by (or, more accurately, subsumed within) FET colleges; teacher and nursing colleges have been shut down to allow for universities to offer improved education and training for the teaching and nursing professions respectively; and technikons-and-technikons on the one hand and universities-and-technikons on the other have been merged to form universities of technology and comprehensive institutions respectively. More recently FET colleges, together with Sector Education and Training Authorities (SETAs) and the National Skills Authority, have been subsumed within the recently established Department of Higher Education and Training (DHET).

As this very basic account reveals, the education and training landscape has seen a great deal of change over a sixteen year period. The question begged is: have we seen concomitant improvements in the education and training system, both in terms of the provision of greater articulation, mobility and progression as envisaged in the principles underpinning the NQF and in terms of improved learning outcomes? This paper is concerned with the first part of this question – the extent to which the structural changes have promoted or hindered student mobility and progression through the education and training system.

### **School-college articulation in the FET band**

Research conducted at the Human Sciences Research Council (HSRC) has revealed that the majority of learners entering FET colleges (Cosser, 2003), nursing training institutions other than universities (South African Nursing Council [SANC], pers. comm., 2009) and

learnerships (Visser & Kruss, 2009) have already achieved National Senior Certificates (that is, grade 12 qualifications) prior to enrolment. This suggests a waste of human resource utilization, as most of these learners revert to a level of learning lower than their highest qualification (the Senior Certificate) in enrolling in FET college and nursing institution learning programmes – thereby negating a key principle of the NQF to facilitate programme articulation and learner progression through the education and training system. Only recently have plans been proposed – by the South African College Principals’ Organisation (SACPO) – to introduce an accelerated NCV 4 programme in FET colleges to obviate the need for repeating learning at levels already traversed.<sup>2</sup>

### **Education-labour market articulation**

There is similar misalignment at the education-labour market interface. HSRC studies have revealed that similar percentages (around a third) of FET college graduates are employed, unemployed and not economically active (NEA) (Cosser, 2003) and that nearly a third of grade 12 learners are unemployed or NEA a year after school (Cosser with Sehlola, 2009). Some 18% of university and university of technology graduates and 37% of students who drop out of the higher education system are unemployed three years after leaving university (Bhorat, Mayet & Visser, 2010). While these figures have as much to do with poor labour market absorption – manifested in a dearth of formal employment opportunities – as with skills supply, the extent of disarticulation remains a concern.

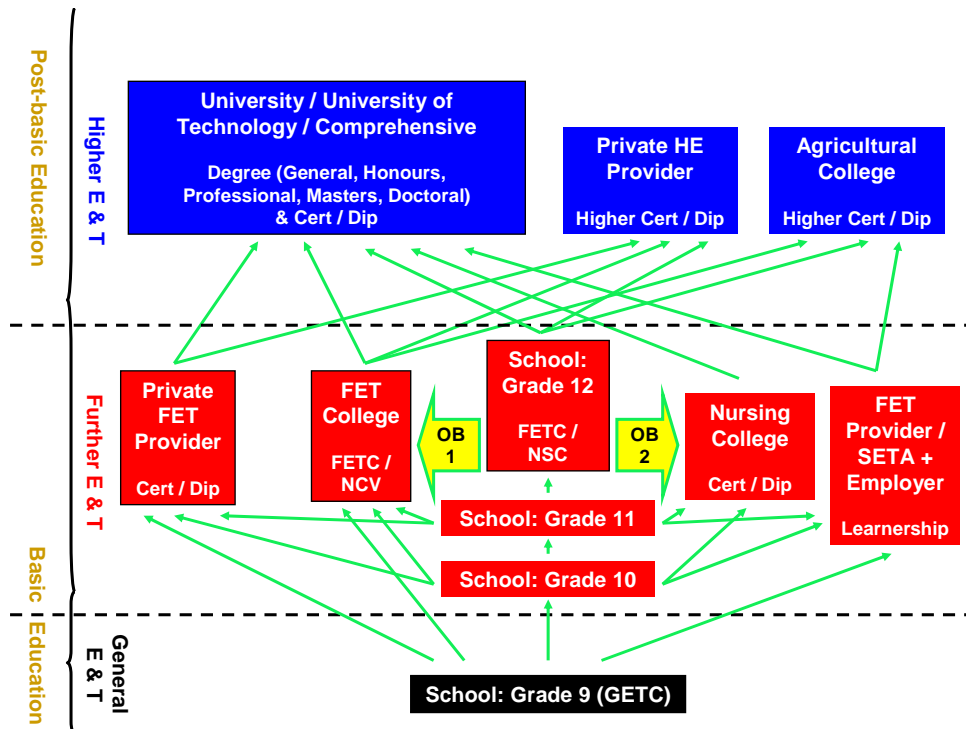
### **Post-secondary education and training options**

One of the key problems identified in the post-DHET establishment period (Stumpf with Papier, Needham & Nel, 2009; Lolwana, 2010) is the paucity of further learning opportunities for youth who leave school either prematurely (with a grade 9 – or GET – certificate or after grade 10 or grade 11) or with a National Senior Certificate – in other words, opportunities for further learning at levels 2 to 5 on the NQF. Teacher training and nursing colleges have been disbanded, and for a variety of reasons – including poor marketing, poor image, and the incapacity of the sector to admit large numbers of learners – FET colleges have not succeeded

in attracting learners. This means that universities loom disproportionately large in the post-school learner imagination – a situation compounded by a transition from an Apartheid to a post-Apartheid state in which learning opportunities for black African learners in particular have opened up to include study programmes besides those in teaching and nursing. The phasing out of N4 to N6 certificates by FET colleges has contributed, moreover, to the lacuna in education and training provision at NQF levels 4 to 5.

The policy decision to phase out N4 to N6 qualifications and to confine FET college provision to NQF level 2 to 4 programmes – cemented by the introduction of the NCV as a parallel qualification to the NSC in the schooling sector – has had dire consequences for the college sector and for skills development at the intermediate level more broadly. The most obvious consequence is the dearth of NQF level 5 programme provision, which exacerbates the university-as-only-option scenario in which universities must perforce offer certificate and diploma programmes in addition to the degree programmes that are arguably their *métier*. The provision of certificate and diploma programmes by Universities of Technology and by the Technology components of Comprehensive institutions goes some way towards accommodating this need. But these *intermediate level* qualifications are not the natural preserve of universities, and should be offered by other institutional types.

Figure 1 illustrates the problems of articulation, progression and mobility presented by the current pathway model:



**Figure 1: Existing pathways model: Obstacles (OB) 1 and 2**

This figure shows two of the obstacles spoken of earlier. In 2002, an HSRC survey of the destinations of graduates from N2, N3 and NSC programmes revealed that 81% of respondents had already achieved a Senior Certificate prior to enrolling for a technical college programme (OB1 in the diagram). At the same time, the admission requirement for entry into an auxiliary nursing programme is a Grade 10. But many entrants have achieved a Senior Certificate prior to enrolment (SANC, pers. comm., 2009) (OB2 in the diagram). There was, moreover, a 66% attrition rate between graduation and registration as a nurse between 1998 and 2007. Many nurses emigrate, or use the degree as a stepping stone to other qualifications (Breier, Wildschut & Mqgqolozana, 2009).

A further obstacle (OB3) is illustrated in Figure 2 below:

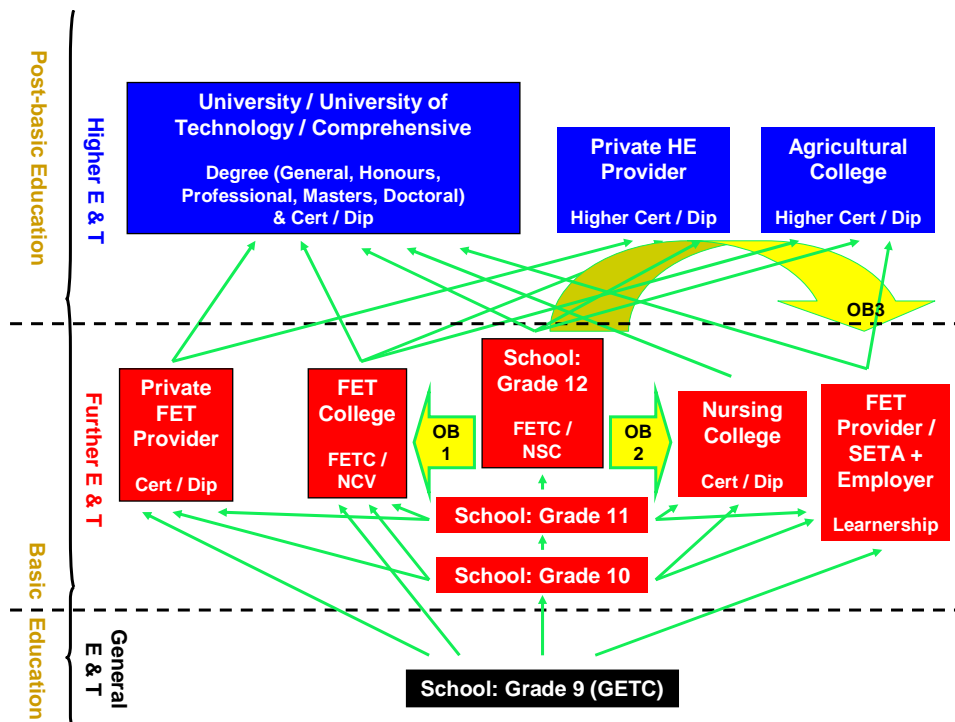


Figure 2: Existing pathways model: Obstacle (OB) 3

Seventy-two percent of young unemployed learners surveyed in the course of a recent HSRC study (Visser & Kruss, 2009) were already in possession of a qualification at NQF level 4 when they enrolled for a learnership – the overwhelming majority (92% of this group) having enrolled for a learnership programme at a level lower than or equal to NQF level 4.

Besides these, there are two further obstacles in the pathways system. The fourth obstacle, from a public provision perspective, involves private provision at the FET level. Notwithstanding the regulation of the sector, such provision has been found to be far larger than public provision in the colleges (Akoojee, 2005). The private sector saw exponential growth in the 1990s, suggesting a significant demand-driven imperative, associated with the twin processes of economic liberalisation and globalisation (Akoojee & McGrath, 2004). FET colleges are not perceived to be providing relevant, credible programmes in sought-after technical and vocational learning areas that will lead to uptake in the labour market. At the higher level, moreover, private higher education appears de facto to be plugging the gap between schooling and public higher education provision.

While it might be argued that private provision complements public provision, the failure of FET colleges to offer programmes that articulate more precisely with labour market demand



signals the inability of the public sector to provide a credible alternative to private provision.

The fifth obstacle exists at the intersection of the FET and HET bands. It concerns, as alluded to above, the paucity of study options for school-leavers. There appear, from Figures 1 and 2, to be a number of pathways into higher education. This exemplifies the problem: there are too few institutional options in the FET band to cater for the demand for further learning and which provide a pathway into the labour market – which perforce pushes learners into higher education.

Figure 3 illustrates the fourth and fifth obstacles:

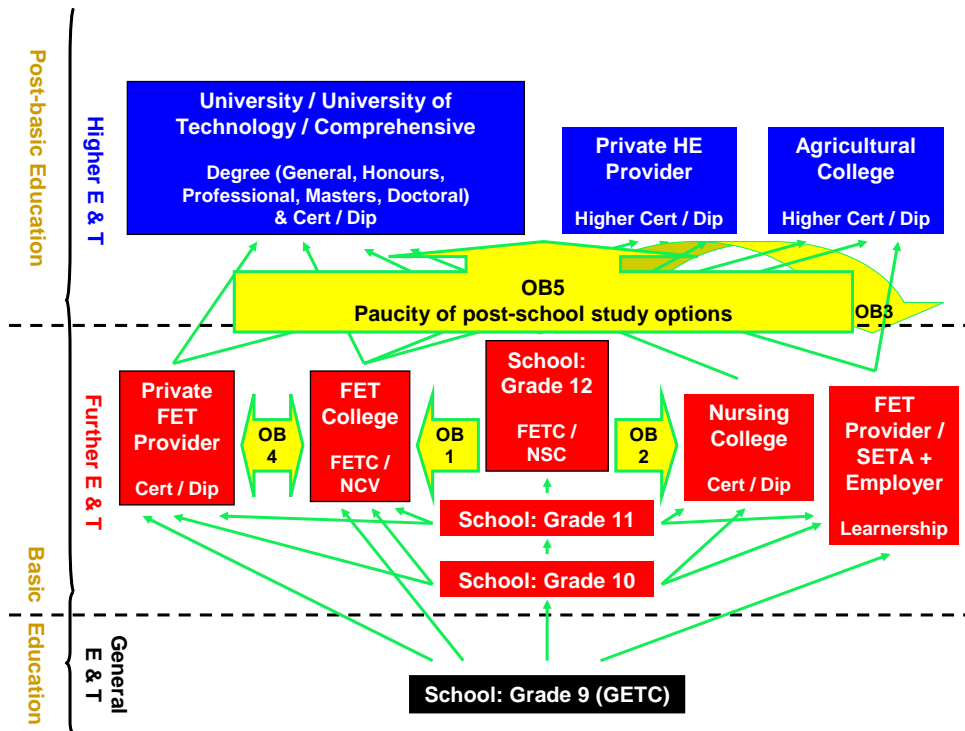


Figure 3: Existing pathways model: Obstacles 4 and 5

## Expanding post-school provision

Pushing learners into higher education comes at a cost. The attrition rate in the university system is notoriously high – and was the pretext for a study of student retention and graduate destination conducted by the HSRC, the findings of which were published in the recently released volume *Student Retention and Graduate Destination: Higher Education and Labour*

*Market Access and Success* (Letseka, Cosser, Breier & Visser, 2010). Many of the learners enrolling in universities should arguably be enrolling in other institution types for qualifications other than degrees. The counter to my argument here will be that universities provide comprehensive support for students ill-prepared for university study – in the form of bridging programmes, extended curricula, intensive and sustained academic development, and so forth. But at what cost? Should universities continue to bear the human and financial resource brunt of failures in the schooling system?

A solution proposed by Lolwana (2010) – and in fact already clearly articulated in the *National Plan for Further Education and Training Colleges in South Africa* (DoE, 2008) – is to use FET colleges as “second chance institutions for preparing students in alternative access programmes as well as bridging courses” (Lolwana, 2010, 18). Is this a NEET solution? (I refer here to the looming social crisis in which an estimated 2.8 million youth – a figure growing by the year – are “not in employment, education or training” – hence the acronym NEET – Sheppard; cited in Stumpf et al., 2009). FET colleges are not the most appropriate vehicle for a social engineering project to get the youth off the streets and into meaningful activity. Not only does such a project distort the mission of the FET college; it creates a false sense of hope. For what are college graduates’ opportunities after college? Will they find jobs? Although there appear to be no concerted tracking mechanisms in FET colleges at present, there are indications that students coming out of colleges with an NCV are not finding employment – partly because employers are skeptical of the value of the NCV qualification (ironically they are demanding a grade 12 in its stead),<sup>3</sup> partly because of the low absorptive capacity of the labour market.

The other social engineering experiment being mooted for NEETs, interestingly, is national service. Here the same scenario obtains: graduates of the defence force “academy” are not likely to find jobs. The question to be asked in relation to both proposals – NEET absorption in FET colleges and NEET absorption in the South African National Defence Force (SANDF) – is whether they are not merely holding mechanisms to provide temporary relief for young people in the absence of longer-term job (and therefore sustainable social) security.

*The need for a viable technical and vocational education and training system*

Under the new education and training dispensation, the very meaning of “higher education” has, ironically enough, been called into question. Though South Africa has a Department of Higher Education and Training, the tendency within the Department itself is to speak not of higher education but of the institutions that constitute it: universities; and (FET) colleges. The Director General of the Department has even suggested jettisoning the NQF bands (M Metcalfe, pers. comm., 2009). Speaking of “universities” and of “colleges”, however, introduces a problem of nomenclature: we cannot have “FET colleges” under a bandless dispensation. This brings us to what are the two central questions we need to ask in relation to FET colleges:

1. What is the purpose of FET colleges? and
2. At what level(s) should FET provision be pegged?

At present, as Lolwana (2010, 7) indicates, “The public FET college sector did not only experience institutional mergers but also a curriculum engineering, resulting in institutions that look more like schools with young students pursuing a set curriculum [the NCV] pegged at basic school levels (grades 10-12) and on a full-time basis.” But in the context of the need in South Africa to develop technical skills at the intermediate level that will form the backbone of the semi-professional arsenal, a system that runs parallel to the NSC in the schooling sector would not seem to be the most appropriate option. The need is to build a fully-fledged Technical Education and Training system that articulates at once with the labour market and with higher education – particularly in the form of universities of technology. Such a system should be pegged not at levels 2 to 4 on the NQF, moreover, but at levels 4 and 5 – building a bridge between school and higher education for those on the technical / vocational track.

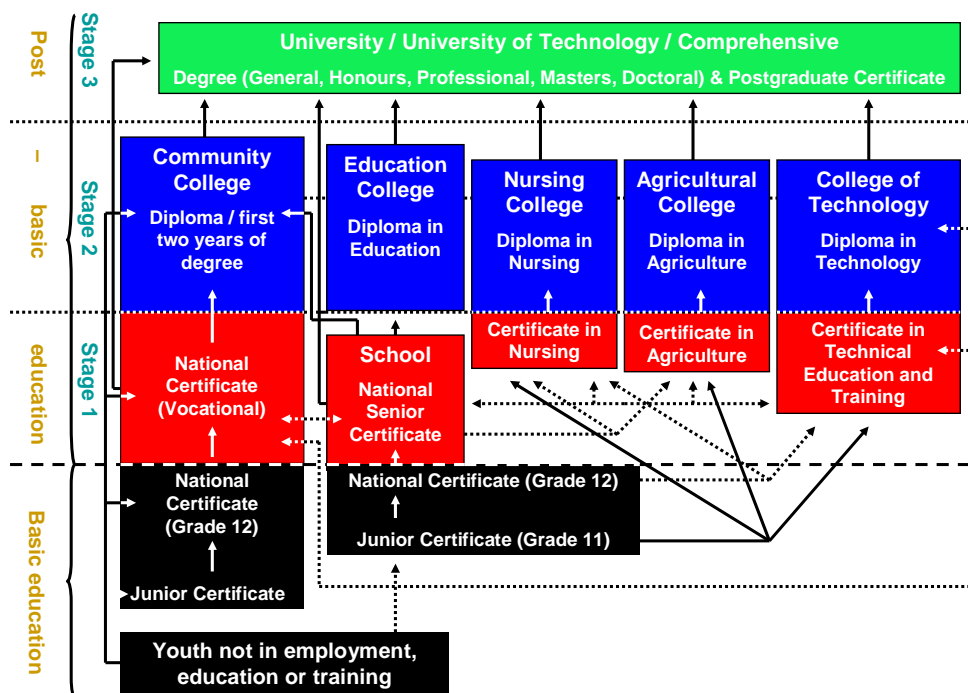
#### *The need for single- and multi-purpose colleges*

FET colleges cannot in themselves constitute the only institutional type for expanding study options at the intermediate level. As Lolwana (2010) advocates, single-purpose institutions – nursing colleges, agricultural colleges, and (dare we say it in the context of their demise) teacher colleges – are needed to allow learners greater opportunities for further learning at this level.

Besides single-purpose institutions, however, a multi-purpose institutional type is needed to accommodate learners, particularly those unsure of their abilities and of their study direction. The community college provides the best means for meeting this need, offering the possibility of expanding intermediate provision at level 5 of the NQF in a way that may either be an end in itself or an entrée into university education. The community college, indeed, is the ideal location for providing the second chance to NEETs alluded to above – borrowing from the US context, in which there is open access for all who want to further their learning, whether (in the South African context) to achieve a grade 12 qualification, to prepare for entry into an FET or other college, or to prepare for entry into a university. In other words, the community college – located within the community – becomes the vehicle for the provision of, and access to, a range of different learning opportunities.

## Towards a new pathways model

Combining the outcomes of the discussion above, Figure 4 provides a graphic representation of a proposed pathways model for South Africa education and training.



Key: → indicates preferred route from one institution or programme type to another

- .....▶ *indicates possible routes that will enhance articulation*
- - - *indicates major division between basic and post-basic education phases*
- ..... *indicates division between stages within the post-basic phase*

**Figure 4: Revised pathways model of education and training in South Africa**

Accommodating the DHET suggestion of dispensing with the bands, the education and training system here proposed comprises two phases: basic education; and post-basic education. The major innovations in this model are:

- The extension of basic education from the end of grade 9 – not to the end of grade 12, as implied by the splitting of the Department of Education into the DoBE and the DHET, but to the end of grade 11
- The use of the Junior Certificate (at the end of grade 11) as an exit-level qualification for progression into further learning in selected occupations and in technical education and training
- An expansion of the number and type of institutions providing post-basic education at the intermediate level
- The introduction of a community college that spans the basic and post-basic education phases; and
- The relocation of the NC(V) to the community college and the use of the college of technology to provide technology-specific programmes.

The rationale for this proposal is as follows.

1. The large – and annually growing – number of young people either unemployed or not in the education and training system (the “NEETs”) indicates the need for an expanded system of post-basic education and training education and training in South Africa. The system here accommodates the demand for extended learning opportunities by providing for three post-basic education and training stages: Stage 1 (red), which includes education and training in schools (post-grade 12 / sixth form) and in colleges (Nursing, Agricultural, Technical, and Vocational) towards the achievement of certificates; Stage 2 (blue), which includes education and training in the same

institutions as well as in Education colleges towards the achievement of diplomas; and Stage 3, which comprises education and training in universities towards the achievement of degrees and postgraduate certificates. The community college, as indicated above, spans the basic and post-basic phases as well as Stages 1 and 2 of the post-basic phase.

2. Compulsory basic education is extended by this model from the end of grade 9 to the end of grade 11 – the first branching point in the education pathway and a multiple entry point into post-basic education and training. This extension is necessary to ensure adequate achievement of the cognitive and affective skills – with particular reference to the literacy, numeracy and social domains – needed for progression to post-basic education and training.
3. Separate academic and technical / vocational tracks are set up at the branching point at grade 11. Those learners who follow the academic track will proceed to Grade 12 and thence to post-grade 12, while those learners who follow the technical or vocational track can proceed, on the technical track, to a college of technology, or, on the vocational track, to an agricultural or nursing college. However, it is possible for learners to switch between the academic, technical, and vocational tracks particularly within the first two stages of the post-basic phase.
4. The model opens up a number of progression possibilities:
  - a. Learners on the academic track can proceed from a grade 12 to a post-grade 12 programme in school and thence to an education college or to a two-year (diploma) programme in a community college or – depending on their academic performance in post-Grade 12 – to a four-year (degree) programme in a university. Importantly, the achievement of the National Senior Certificate – at a level higher than the current NSS – is a prerequisite for entry into further academic learning, *including learning in an education college*. The mounting of a post-grade 12 academic year has the added advantage of bridging the gap between school and university education, where attrition rates are currently of the order of 40% in the first year of study.
  - b. Learners on the technical / vocational track can proceed:

- i. from a certificate programme in a nursing college (preferred qualification for auxiliary nurses) to a two-year diploma programme in a nursing college (preferred qualification for staff nurses) or – depending on their academic performance – to a four-year programme in a university (preferred qualification for nursing sisters)
  - ii. from a certificate programme in an agricultural college (preferred qualification for agricultural extension workers) to a two-year diploma programme in an agricultural college (preferred qualification for small-scale farmers and farming assistants) or – depending on their academic performance – to a four-year programme in a university (preferred qualification for large-scale commercial farmers and high-tech agricultural careers); or
  - iii. from a certificate programme in a college of technology (preferred qualification for artisanal and technical assistants) to a two-year diploma programme in the college (preferred qualification for artisans and technicians) or – depending on their academic performance – to a four-year programme in a university (preferred qualification for technologists).
  
- 5. The (re)introduction of the education college allows for the achievement of a two-year diploma – the preferred qualification for teachers in the Foundation and Intermediate Phases – while the four-year degree in a university, or three-year degree plus a postgraduate certificate in a university, is the preferred qualification for teachers at the high school level.
  
- 6. The community college – the multi-purpose mainstay of the new model – provides opportunities for NEETs as well as learners from school and from technical and vocational colleges to access further learning which may be an end in itself or a pathway to further opportunity within the community college or to a university. Multiple points of entry into and points of exit from community colleges (some of which are not even illustrated in the diagram) should be possible.
  
- 7. From a certification perspective, the model preserves, in broad terms, the NQF logic of certificates, diplomas and degrees involving 120, 240 and 360 credits (and the

accompanying notional hours of learning) respectively. However, the model inserts a Junior Certificate at the end of grade 11 as the exit-level qualification for progression to a grade 12 programme in a school or a learning programme in a college, and commutes the Senior Certificate to a qualification pegged at a higher level (level 5 on the NQF) than the current NSC. From an NQF perspective, all certificates in Stage 1 and all diplomas in Stage 2 are at level 5 of the NQF, while all degrees (Stage 3) are at NQF level 6. The Junior Certificate is conceived of as a two-year programme encompassing the present grades 10 and 11 (levels 2 and 3 respectively on the NQF), while the National Certificate is pegged at NQF level 4.

8. The revised model is consistent with the principles contained in the SAQA Act (Act No. 58 of 1995) (RSA, 1995) and the Regulations promulgated under this Act (RSA, 1998), providing for enhanced articulation, progression, and mobility, as well as alternative routes into post-basic education and training.

### *The cost of the model*

One of the objections to the proposed model is likely to be cost – particularly the expense involved in the construction of community colleges. The idea is not to incur vast infrastructural costs, however, but as far as possible to utilize existing infrastructure to achieve the structural changes proposed. To this end, I advocate:

1. That the existing infrastructure
  - a. used previously for teacher training, nursing, police, and agricultural colleges not currently in use, or not optimally used for other purposes
  - b. used presently for FET colleges; and
  - c. used currently for community halls and certain churchesbe reconfigured for use by technical and community colleges. This would include the utilization of certain FET college campuses as community colleges and others as technical colleges; and
2. That new infrastructure be built where no suitable infrastructure exists, on the principle that no learner should have to travel more than half an hour (whether by public transport, private transport or on foot) to access a teaching / learning institution.



## **Conclusion**

This paper has articulated the problems with the existing pathways model devised in the wake of the SAQA legislation of the 1990s. It has shown that the very principles of articulation, mobility and progression upon which the NQF stands have been violated, consciously or unconsciously, over a ten- to fifteen-year period. It has proposed, and argued the merits of, the adoption of a new model that will begin to address the articulation deficiencies in the present model and to remove the obstacles that characterize the current education and training system.

There is one important rider to the advocacy of a new model, however. It concerns the quality of teaching and learning in the schooling system. Without negating the value of structural change of the kind proposed here, it is incontrovertible that without dramatic improvements in the quality of provision in the schooling sector, we will never have a viable PSET (post-school education and training) system. Indeed, the argument for extending basic education to grade 11 to allow learners to acquire the functional numeracy, literacy and social skills they will need to progress further along education and training pathways is premised in part on the current academic performance of South African learners, whose achievements in literacy and numeracy are far below those of their international peers (Howie, Venter, Van Staden, Zimmerman, Long, Scherman & Archer, 2007; Reddy, 2006).

Higher education, as indicated above, should not have to bear the financial and human resource brunt of a poor schooling sub-system – itself a manifestation of a failure to provide children with the appropriate building blocks for subsequent learning. Because failure begets failure, it is imperative that the country as a whole, not simply the education and training authorities, pay more attention to improving the foundations upon which successive learning is built. No pathways model can function optimally within a deficit learning environment in which higher levels of education and training have constantly to play catch-up.

Notwithstanding this rider, the pathways model proposed in this paper attempts both to remedy the structural deficiencies in the present model and to accommodate the particular learning deficits that characterize the South African learning population.

## Endnotes

- <sup>1</sup> The latter has come into its own some twelve years after the promulgation of the National Standards Bodies [NSB] Regulations (RSA, 1998) with the creation of the Department of Higher Education and Training.
- <sup>2</sup> Spoken evidence obtained by the author from FET colleges in the course of the FET audit, May 2010, and from the SACPO conference “Towards an ideal college”, Durban, 17-18 May 2010.
- <sup>3</sup> Interview with the CEO of Vuselela FET College, Klerksdorp, 25 May 2010.

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