

# Optimizing Talent:

*Closing Educational and Social Mobility Gaps Worldwide*

## **Conceptions of Academic Talent: Perspectives in Higher Education**

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## Executive Summary

Universities play a central role to national development within South Africa. However, it is vital to go beyond access to higher education institutions and also focus on the academic success of learners whilst challenging the problems associated with access to higher education. Despite the varying definitions to academic talent; it has been noted that the associated professional complexities is often overlooked by many. Academic success is influenced by contextual, socio-political and socio-cultural factors. Therefore, learners from marginalized communities are situated within a particular historical context, from which these qualities, skills and strategies offer valuable internal resources that learners can potentially access and apply within the academic domain. However, strategies' for changing conceptions of academic talent in South Africa is often intertwined with practice.

Post-apartheid policy on higher education, formulated by the National Commission of Higher Education (NCHE), is a strategy promoted to overcome the problem of elitism thus facilitating a more inclusive environment (Ntshoe, 2004). It is, however, important to note that there has been an increase in black student enrolment at historically advantaged institutions owing to more the higher prestige of HAIs in the labour market amongst other factors (Ntshoe, 2004). Despite increased access to higher education institutions, these students often do not perform as well as fellow students from better-resourced schools. This often results in low retention and graduation rates due to problems associated with inadequate funding, poverty, poor student accommodation and living conditions and inadequate academic preparation for university studies.

Learners state of preparedness, material conditions, and educational milieu all influence access and retention at higher education institutions within South Africa. These external influences largely

contribute to high attrition rates. Mainstream higher education is characterised by a diversity of student intake from a variety of educational backgrounds that affects students' engagement with learning opportunities. However, despite the diversity, students are often treated as a homogenous group with similar learning experiences. The development and implementation of integrated academic and social support activities to help students adjust and cope with life as a university student is a key element in the improvement of higher education progression rates. The improvement of graduate outputs as a national priority primarily depends on improving performance patterns. The Targeting Talent Programme (TTP), located at the University of the Witwatersrand, is one such programme. This study will focus primarily on graduates of the TTP.

After participating in a three year pre-university programme a total of 267 TTP learners enrolled for their final Grade 12 exams. Eighty-two percent achieved the highest qualification, an admission to a Bachelors' Degree. The majority of these students (88) enrolled at the University of the Witwatersrand (WITS) whilst the remaining students (64) enrolled at tertiary institutions across South Africa. The majority of students at Wits enrolled in the faculties of Engineering and the Built Environment (47) and Science (41). Eighty learners (50.6%) of these learners achieved passes in 2010 compared to 90 (56.9%) learners in 2011. On the other hand, approximately 6.3% (n=10) and 8.23% (n=13) reported failures whilst 11.4% (n=18) and 9.5% (n=15) of the learners passed some courses in 2010 and 2011 respectively. Despite various limitations of the data presented and cautions to the interpretations made, it is evident that TTP has facilitated access to higher education for the participating students. However, the progression results from their first to second year of study clearly indicate that these students were not prepared to navigate the institutional culture as well as what enables or prevents them from succeeding academically.

In conclusion, some strategies being proposed to address some of the challenges experienced in the South African context include: increasing chances of success and retention in higher education through the improvement of teaching and learning approaches, adopting a more flexible curriculum design, the promotion of African languages in higher education to reflect multilingual South Africa, consideration of the shifting identities of learners from disadvantaged contexts as they transition within the post-apartheid context, increase student engagement that facilitates their academic success, and increasing resource allocation to university student support programmes.

## Introduction

Universities, as providers of the highest level of academic education, have a particular role to play in strengthening the post-school system as a whole and play a central role in national development. South African universities have taken some vital steps in responding to the legacy of apartheid. Of note is the changed demographic profile of students from the former white, coloured and indian universities with the increased admittance of African students providing opportunities formerly unavailable to them. In a keynote address by the Minister of Higher Education and Training, Dr Blade Nzimande (2010) reports on the following:

*“The proportion of African students in universities increased from 49% in 1995 to 63% in 2007 and is estimated to be around two-thirds at present. This trend still has some way to go to reach the 79% of Africans in the population, but it does show steady and considerable progress since 1994.”*

Although there is recognition from various government sectors regarding the positive developments in the university sector, the acknowledgement of these developments has not been

sufficiently adequate and apparent. The apartheid legacy is still clearly discernible in higher education, as it is in many aspects of South African life.

Access to a university education for many qualified and high potential youth is still a serious problem. This is partly due to problems of affordability and lack of access to higher education institutions. Of essential importance is not to focus on universities themselves. **It is evident that the discussion has to go beyond access. Academic success is equally important and it is clear that in this respect we have a long way to go. Research on student experiences during a four year degree of study is sparse, just as what enables or inhibits a student's academic success and ultimate graduation from higher education.**

## Discourses of Academic Talent

Definitions of talent tend to overlook or even be indifferent to most of the tensions, complexities and controversies associated professionally with the word. Two common distinctions, namely: broad versus specific and potential versus accomplishment is generally accepted in many articles. Any answer to the question of *who is or is not talented* tells as much about our values as about the person we are labelling.

The literature abounds with several terms that are used to refer to achievement within the educational context. Several discourses may be identified on the basis of specific definitions proposed: (i) academic talent as a fixed, inborn quality predominantly determined by biological predispositions, genetics, heredity factors (ii) academic talent as nurtured ability and a developmental construct, (iii) academic talent as derived from the interplay between nature and nurture factors, and (iv) academic talent as a socially constructed entity which serves particular socio-political interests. Therefore, talent is both

content and context dependant- and whether one's knowledge and skill is recognised as talent depends on how much that knowledge or skill matters to others (cf. Csikszentmihalyi & Robinson, 1986).

### **Addressing the Sociocultural Context of Talent**

Traditional conceptions of talent (adopted in the international literature) have little bearing on learners in marginalized settings. South African authors have proposed that the potential for academic success is influenced by contextual, socio-political and socio-cultural factors. In other words, the historical disadvantage, poor quality schooling, lower socioeconomic status and class and rural contexts with limited resources are some background factors, alongside minority racial, ethnic and gender status militate against potential success in an academic context (Cliff & Hanslo, 2009). These background factors have an influence not only on learners' subject knowledge, but also their *approaches to learning* (Scott, Yeld & Hendry, 2007). Addressing the sociocultural context of talent, therefore, would mean viewing academic success as the product of intersecting variables (cognitive, affective, motivational, dispositional, sociocultural, socioeconomic and institutional), resulting in intervening with high potential students in a holistic manner (Ross, 2009).

Given this more expansive and inclusive view of academic talent, how are these qualities and characteristics identified in learners from marginalized contexts? How are they incorporated alongside cognitive and intellectual domains of talent emphasized by the university learning environment? How are they fostered academically and nurtured intra- and interpersonally to serve learners in attaining academic success? How do individual skills (whatever their nature) translate into talent that can merely be implemented in a meaningful sociocultural context (Csikszentmihalyi, Rathunde and Whalen, 1996), but are also derived from the sociocultural context in which the individual is embedded? In other words, the specific qualities possessed by each learner derives from a unique life story situated within a

particular historical context, and that these qualities, skills and strategies offer valuable internal resources that learners can potentially access and apply within the academic domain. Holistically, they cross-cut complementary learning domains (cognitive, conative and affective) from which qualities of motivation, persistence, self-regulation, self-reflective capacity, goal orientation, internal locus of control, community awareness and social and political will (Enslin, Button, Chakane, de Groot & Dison, 2006).

### **Strategies for changing the conception of talent**

Conceptualization of academic talent of learners from socio-political, socioeconomic and sociocultural marginalized contexts, 'strategies' for changing conceptions of academic talent in South Africa are not limited to the domain of theory, but is intertwined with practice (student identification and selection, university academic support programmes, etc.). Therefore, the provision of fair opportunities to develop their talents through consideration of learners' historical backgrounds (socio-political, economic, cultural, familial, etc.) and their influence on academic success should be emphasized (Machingambi & Wadesango, 2012; Maree & Beck, 2002). Equity in higher education (as defined by equality of access, programme quality and equality and equality of graduates' calibre) should extend beyond its quantitative domain to have substantive quality. If equity is viewed more broadly through a qualitative lens, this would allow for more inclusive conceptions of academic talent.

### **Retention and Success of South African Students in Higher Education: Factors Leading to Increase in Enrolment**

In the post-apartheid climate, various factors have led to increased enrolment of students in higher education from previously underrepresented groups. The eradication of social, political and structural

inequalities was promulgated as one of the visionary goals of higher education and training in post-apartheid South Africa.

It has been noted that while English and Afrikaans historically advantaged institutions (HAIs) have gained in student enrolment (notably between 1999 and 2002), historically disadvantaged institutions (HDIs) are faced with the challenge of declining enrolment. The influx (and increased enrolments) of black students from HDIs to HAIs since 1994 is owed to more resource availability, more effective governance and management, programme completions and the higher prestige of HAIs in the labour market (Ntshoe, 2004). Where enrolment growth was reported (specifically among historically black technikons), these were ascribed to the demand for higher education by previously disadvantaged groups, relatively low entrance fees of technikons, new educational policies that required equal funding for universities and technikons, and lower admission requirements compared to universities.

This factor, amongst other reasons outlined, including waning public funding, rising student debt, high student attrition rates, low research output, inadequate policies on academic development, lack of management and governance, and academic disruptions due to financial exclusions, impede transformation in higher education.

### **Higher Education: Access and Retention context**

Less than half of the students who enrol in first year actually graduate. The CHE has estimated in 2007 that only 44% of those who enrolled in 2000 would go on to graduate. Data of this kind which requires cohort studies is sketchy and inadequate to date. It is also clear that underprivileged, mainly black, students do not perform as well as their fellow students from wealthier families and better-resourced schools, even when they study in the same universities

representing lost opportunity for individual students, their families, and our national development potential.

Access and retention of students at university is a pressing concern in South Africa. Within the higher education sector, graduate output has become a priority for the following reasons:

- The outputs of the higher education sectors do not match the developmental needs of the country as reflected in the shortage of high level skills.
- The major racial disparities in completion rates in undergraduate programmes, along with high attrition rates negates much of the growth in black access to higher education
- An obstacle to access and development is manifested in the major differentials in preparedness for higher education as a result of continuing socio-economic inequalities (Higher Education Monitor No. 6, 2007).

Over the last decade, the number of students enrolled for tertiary education has dramatically increased; (Higher Education Monitor, 2010). However, graduation rates remain low (Letseka & Maile, 2008). Since improving graduate output is a national priority for higher education institutions, they must create conditions to ensure that a high number of first years complete studies of their choice. According to the Higher Education Monitor (No.6, 2007), it follows that improving graduate output depends primarily on improving performance patterns. In this respect, poor performance patterns necessitates an emphasis on success rather than access as expressed in the NPHE and aspects of the DoE funding and enrolment planning policy.

The “articulation gap” (Department of Education, 1997, cited in Scott et al., 2007), the mismatch between secondary schooling outcomes and the demands of the higher education system, is evidenced

by the high first-year attrition rates and low completion rates even for a significant number of students achieving favourable outcomes in secondary schooling, particularly for the overrepresented black majority from marginalized contexts (Scott et al., 2007). The Higher Education Monitor (2010) reported on the retention rates at three universities in South Africa. In particular relation to the University of the Witwatersrand, approximately 30% of students completed their studies in the minimum accepted time period (Higher Education Monitor, 2010). The reasons for low success and high drop-out rates are multi-fold and include problems associated with inadequate funding, poverty, poor student accommodation and living conditions and inadequate academic preparation for university studies. In light of the above, it is evident that the student's inability to respond positively to higher education programmes is perceived to be a result of an educational deficit and not reflective of the interplay of the "H.E Academy's" inability to adapt its programmes to the heterogeneous range of student educational and life experiences. The result is the loss of nurturing individuals with potential to contribute to society in the long term.

Three areas emerge when reviewing studies conducted in the access and retention context:

#### **A. States of Preparedness**

A multidimensional framework conceptualising factors that contribute to (or hinder) student retention and success include pre-university experiences (cf. Murtaugh, Burns & Schuster, 1999), student behaviours, institutional conditions, family background, academic preparation and financial difficulties (Kuh et al., 2007; Strydom & Mentz, 2010). According to Jama, Mapesela and Beylefeld (2008) classic models of university retention often fail to take cognisance of the context in which non-traditional

students<sup>1</sup> reside neglecting the skills required to succeed at university (Jama et al., 2008). Integration into the university environment also tends to be hindered by limited exposure to other cultures (Toni, 2002, as cited in Jama et al., 2008). Despite efforts to integrate all students into the university environment, orientation programmes frequently fail as they overload students with novel information in a rushed manner (Swail, 2006, as cited in Jama et al., 2008).

### **B. Material Conditions**

Financial difficulties are frequently cited as a bulwark to access and retention in university. Limited financial resources prevent students from meeting their basic needs (such as food and clothes). This, in turn, has a deleterious impact on students' university experience (Jama et al., 2008; Yorke & Longden, 2008). Financial concerns are also related to augmented experiences of stress in students (Ross, Cleland & Macleod, 2006). In addition to finances, academic pressure is often more intense than expected in the first year of study and are therefore unprepared for the academic workload required for successful tertiary studies (Yorke & Longden, 2008).

### **C. Educational Milieu**

Access, retention and throughput cannot be divorced from "the historical and social backdrop of differentiated education and the systematic exclusion, poverty and political disempowerment of the majority of the population" (Higher Education Monitor, 2010, p. 1). The educational disparities of the erstwhile government have had a dramatic impact on the university experiences of disadvantaged students who are frequently faced with the challenge of adapting to a novel academic culture. Cultural differences have been found to impact on student's university experience as some students are often

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<sup>1</sup> Jama et al. (2008) define non-traditional students as Black students who come from a disadvantaged school and family background.

afraid or embarrassed to ask questions in class or in front of their peers (Cross et al., 2010). These cultural differences negatively impacting learning experience and academic results, which is particularly noticeable for black students (Cross et al., 2010). Students who attend rural schools also note that they are not taught in English at school, and, consequently, experience augmented academic pressure when taught in English at university (Cross et al., 2010). As a result, learners bring different skill levels to university. In addition, disadvantaged students frequently experience financial challenges and have limited academic resources. These considerations, as previously mentioned, tend to be ignored in throughput rates, as the quantitative figures “fail to reflect the intricacies of social conditions and the teaching and learning process” (Higher Education Monitor, 2010, p. 6; Kuh et al., 2007).

The educational milieu consist of non-tangible focal areas, such as the students experiences of the institutional, academic and ideological cultures that permeates the fabric of higher education. The limited research done in this area is critical in understanding how these non-tangible experiences either enable or facilitate academic success.

### **Reasons Contributing to Student Attrition**

High attrition rates are largely attributed to external influences outside of the higher education sector. Most particularly, the shortcomings of the schooling system and the legacy of inequality, manifest as a lack of qualified teachers, poorly resourced learning environments, and poorly constructed syllabi. These factors have negatively influenced the caliber of students’ preparedness for university education (Scott et al, 2007). Apart from this, socioeconomic and material conditions place further limits on higher education access and impede chances of completion of studies to graduation. Beyond these external factors, there are specific areas within the sector’s control. Scott et al. (2007) hint at certain affective factors that negatively compromise academic performance and the general wellness of students,

irrespective of well-designed educational interventions offered by university institutions. Some of these might include lack of motivation and confidence, institutional alienation, anxiety about finances, etc.; which all potentially lead to demoralization and drop-out. Although the relationship between affective factors and student attrition requires further investigation, Scott et al. (2007) argues that the higher education sector has a role to play in designing strategies to ensure student wellbeing.

Inadequate preparation for university has been identified as an imposition on the right to access higher education as a result of grade retention, failure or dropping out. Machingambi and Wadesango (2012) argue that the level of student under-preparedness for higher education is an aspect of social exclusion. Some authors (Scott et al., 2007) have taken issue with this construct of under-preparedness, most frequently proposed as an explanation for underperformance of students from educationally disadvantaged contexts. Under-preparedness should not be equated with lacking potential, given that the select groups of students who achieve university entrance are represented in the populations' uppermost quintile. Regardless of talent (or talent potential), students' lack of exposure to taken-for-granted "key academic approaches and experiences" (Scott et al., 2007, p. 42), as a result of their disadvantaged backgrounds, is a necessary consideration in designing strategies to facilitate student success in higher education.

Mainstream higher education is characterised by a diversity of student intake from a variety of educational backgrounds that affects students' engagement with learning opportunities. Often, mainstream sectors treat student intake as having a homogeneous learning experience despite unequal educational backgrounds. A key element of higher education's ability to improve progression rates from first year into second year and increase graduate rates is to design and implement a range of integrated academic and social support activities to help students, adjust

and cope with life as a university student. There is a critical need to engage in this area of research to understand the systemic blockages that enable and/or inhibit the academic success and graduation of students from higher education institutions.

As a result of the above, a great loss of contribution to the knowledge economy of South African Society will be continuously experienced. There needs to be greater engagement in understanding the role of higher education as an enabler or inhibitor of academic success.

The University of the Witwatersrand has implemented a pre-university programme, the “Targeting Talent Programme” (TTP) in an attempt to address the learning context that may impede both access to and success in higher education.

#### **Framing Assumptions for the Targeting Talent program**

- Racialised conceptions of ability and talent generated under apartheid have meant that talent in South Africa remains an untapped resource;
- Socio-economic status is a barrier to individuals achieving their potential rather than an indicator of their potential;
- A model of positive reinforcement for learners, as opposed to the one which is based on a deficit model, reduces the limiting assumptions which learners impose on themselves.

*“It is essentially about radically changing our society, including our education and training system and all other areas of life to ensure that they can serve the interests of all South Africans in a democratic, equitable and prosperous society. Put differently it is about confronting the*

*deeply interrelated challenges of class, race and gender inequalities.... All of us here have a duty to ensure that the higher education system serves this purpose”- Keynote Address by Minister of Higher Education and Training Dr Blade Nzimande to the Stakeholder Summit on Higher Education Transformation, Cape Peninsula University of Technology; 22 April 2010*

The graduates of TTP will be the primary focus of the study. After participating in a three year pre-university programme a total of 267 TTP learners enrolled for their final Grade 12 exams. Of the 267 learners, 219 (82%) achieved the highest qualification, an admission to a Bachelors’ Degree, 22 learners (8%) achieved an admission to a Diploma, 9 learners (3%) achieved an admission to Higher Certificate and 12 learners (5%) failed their final Grade 12 results. One hundred and fifty nine of the TTP learners enrolled for tertiary studies in 2010. The majority of these students (88) enrolled at the University of the Witwatersrand (WITS). The remaining students (64) who obtained access to tertiary studies enrolled at tertiary institutions across South Africa. The majority of students at Wits enrolled in the faculties of Engineering and the Built Environment (47) and Science (41).

The 2010 academic results for the 88 students are depicted in the table below:

*Table 1: Summary of overall results*

| <b>Subject</b>    | <b>PCD</b> | <b>PSC</b> | <b>MRNM</b> | <b>MBR</b> | <b>RET</b> |
|-------------------|------------|------------|-------------|------------|------------|
| Engineering       | 11         | 0          | 11          | 5          | 7          |
| Built Environment | 3          | 2          | 0           | 0          | 0          |
| Science           | 8          | 0          | 6           | 3          | 9          |
| Health Science    | 1          | 0          | 0           | 0          | 0          |
| Commerce          | 4          | 0          | 3           | 0          | 3          |
| Humanities        | 2          | 1          | 1           | 0          | 2          |

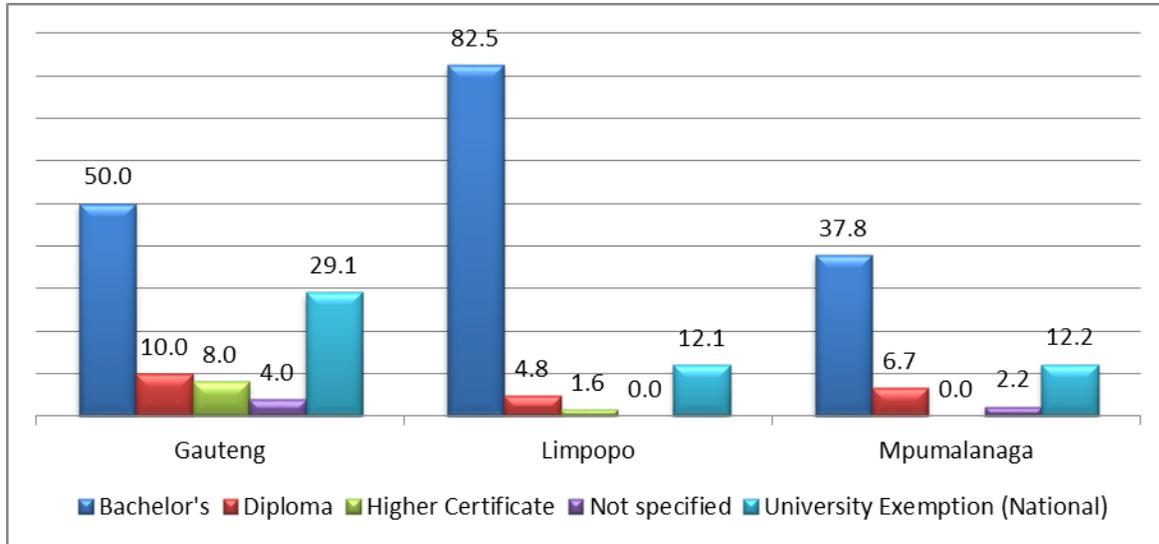
|              |           |          |           |          |           |
|--------------|-----------|----------|-----------|----------|-----------|
| <b>Total</b> | <b>29</b> | <b>3</b> | <b>21</b> | <b>8</b> | <b>21</b> |
| <b>Total</b> | <b>32</b> |          | <b>50</b> |          |           |

Please Note: PCD = Permitted to proceed; PSC = Permitted to proceed on a special curriculum; MRNM = Minimum requirements not met; MBR = Exclusion waived-must return to the same year of study; RET= Must return to complete requirements for year of study. Five results could not be obtained.

It is evident that TTP has facilitated access to higher education for the participating students. The progression results from their first to second year of study clearly indicate that these students were not prepared to navigate the institutional culture as well as what enables or prevents them from succeeding academically. There is clearly something non- facilitatory in the material conditions, states of preparedness and educational milieu that warrants investigation. Machingambi and Wadesango (2012) argue that teaching and learning approaches by South African academics in higher education should cater to the realities and diversity of the student body. They further argue that particularly at the undergraduate level, the higher education experience should be a time of “great intellectual stimulation and personal growth”.

**WITS SETMU Data in Context**

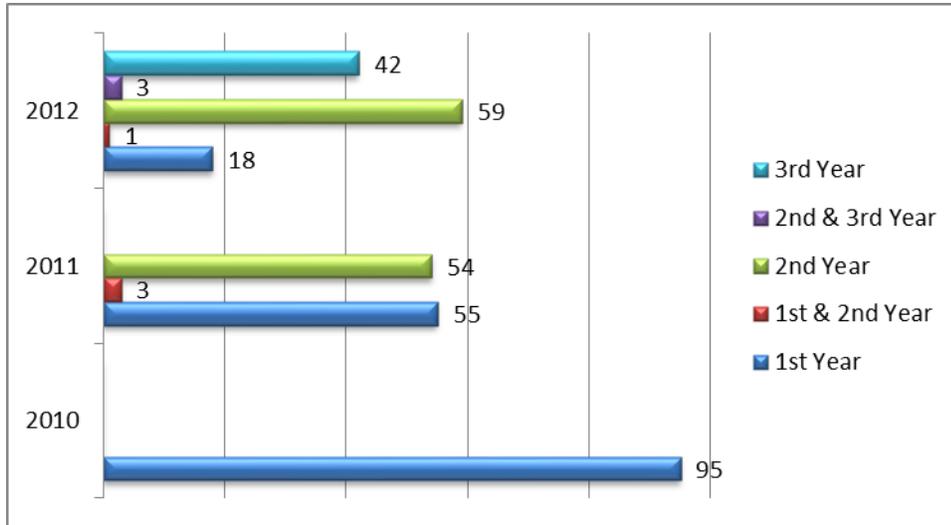
**Distribution of TTPC1 2009 Cohort by Province Based on Anticipated Qualifications**



*Graph 1: Percentage of TTPC1 learners based on anticipated qualifications. Percentages calculated based on total learners per province: Gauteng (n=50, missing: n=14), Limpopo (n=63, missing: n=7), Mpumalanga (n=45, missing: n=24).*

Graph 1 is a distribution of 158 learners per province entering higher education based on level of entry determined by National Senior Certificate (NSC) outcomes. As reflected in the graph, the percentage of TTPC1 learners obtaining university exemption was substantially higher compared to the 2009 NSC data (Haldenwang, 2009). Compared to 29.1% of all learners in Gauteng province who obtained university exemption, 50% of learners in the TTP cohort achieved the same. For Limpopo province, 82.5% of the TTP cohort obtained university entrance compared to 12.1% of all learners in Limpopo who wrote the NSC in 2009. Approximately 37.8% of TTP learners from Mpumalanga obtained university exemption versus 12.2% of the learners who wrote in Mpumalanga province.

**Distribution of TTPC1 2009 Cohort Based on University Year of Study (YOS)**

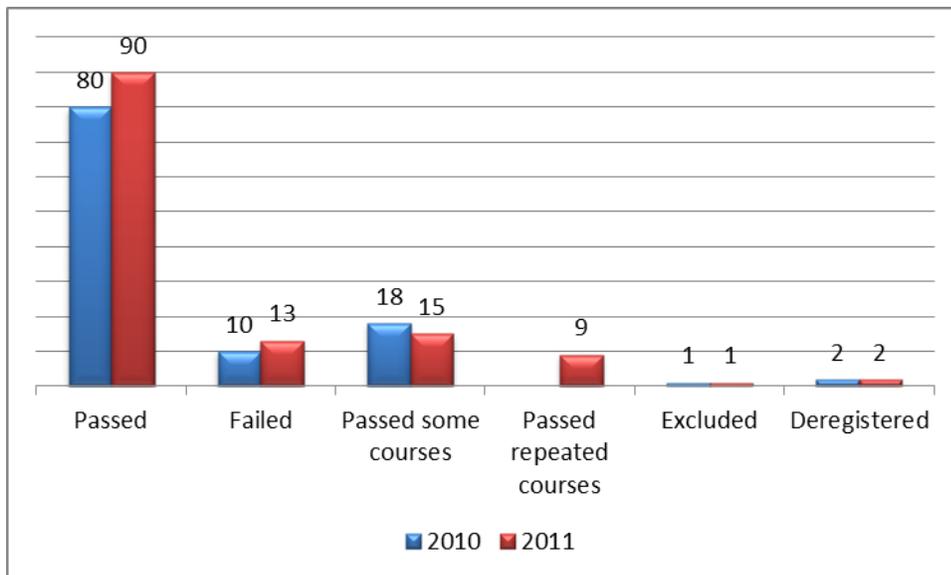


Graph 2: Number of TTPC1 cohort learners distributed across university year of study from 2010-2012.

Data based on absolute numbers; missing data: 2010 (n=63), 2011 (n=46), 2012 (n=35).

Graph 2 only reflects the data available for 158 learners out of the total 267 learners in the 2009 TTP cohort (TTPC1), translating to 59.18% of the total cohort. Of the 158 cases, additional missing data summed up to 144 across the three years.

**Higher Education Achievement Outcomes of TTPC1 2009 Cohort**



*Graph 3: Distribution of higher education achievement outcomes of TTPC1 cohort learners for 2010 and 2011. Data based on absolute numbers; missing data: 2010 (n=47), 2011 (n=28).*

As Graph 3 depicts, of the 158 learners, 80 (50.6%) achieved passes in 2010 compared to 90 (56.9%) learners in 2011. Approximately 6.3% (n=10) and 8.23% (n=13) reported failures whilst 11.4% (n=18) and 9.5% (n=15) of the learners passed some courses in 2010 and 2011 respectively. Approximately 5.7% (n=9) of the learners in 2011 passed repeated courses. Six learners in total had deregistered (4) or were excluded (2) for the combined years of 2010 to 2011.

According to the 2010 report on the NSC examination results (Haldenwang, 2010), of the 552 073 candidates who wrote the NSC examination in 2009, 334 718 achieved a pass, resulting in a pass rate of 60.6%. Of the 552 073 candidates who wrote the NSC examination in 2009, 109 697 learners (19.8%) achieved admission to university study. The Limpopo province had the highest percentage pass rates for both 2010 (24.1%) and 2011 (22.8%), but also the highest percentage of failures (3.8% and 5.1% respectively). For both Gauteng and Mpumalanga, the percentage of learners who passed in 2011 exceeded the percentage pass rate of learners in 2010 (i.e., 19.6% versus 15.8% for Gauteng and 15.2% versus 10.8% for Mpumalanga).

### **University Performance: Education Retention and Drop-Out Rates**

The Department of Education's Directorate of higher education planning, of the 120 000 students enrolled in higher education in 2000, 30% dropped out in their first year, and a further 24% withdrew from their studies in their second and third years of study (Letseka, Cosser, Breier & Visser, 2010). Scott (2009, p.29) asserts that "the assumptions on which traditional first-year degree courses are based originated in a period when the intake was predominantly homogenous and privileged, and have not changed to match the diversification of the student body over the last three decades". This implies that

if significant adjustments are not made to the academic curriculum to accommodate the changing student profiles, such curricula will continue to be an obstacle to many students success in higher education.

Several cautions are drawn to these interpretations. The inflated percentages of the TTP cohort represent the performance of a select group of high-achieving learners, and therefore do not mirror the wide-ranging achievement potential of all learners who wrote the NSC in their respective provinces. This group selection bias factor is certainly a consideration when comparing against national averages.

The numbers of TTPC1 learners from the selected provinces (Gauteng, Limpopo and Mpumalanga) are not in ratios proportionate to the national sample of learners reflected in the 2010 NSC examination results report. In order for more realistic comparisons to be made against this national sample, these proportions need to be statistically weighted (geographical region, age, gender, and other significant variables) and adjusted accordingly to compensate for the presence of bias to allow for more reliable comparisons. Furthermore, the data from the remaining 109 learners need to be included in the analysis. It could be proposed that at the sampling stage (or alternatively, the selection phase of learners for TTP) be strategized based on quota sampling to ensure an accurate proportional representation of learners writing the NSC from various provinces. This would provide more reliable comparisons to be made with the national sample and more cogent interpretations can be drawn. Second, and perhaps more significantly, the TTPC1 outcomes data reflect learners' university academic performance and not performance at a matriculation level, as reflected in the NSC report.

Moreover, this distribution of learners does not include the remaining 109 learners, a substantial number of cases, comprising the total 267 learners in the 2009 TTP cohort (TTPC1)<sup>2</sup>. However, previous

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<sup>2</sup> Data pending or missing due to learners not able to be contacted by July 31, 2012.

studies, such as the Student Retention and Graduate Destination Study, conducted by Letseka et al (2010) indicate a 15% response rate. The Student Equity and Talent Management Unit (SETMU) have, in comparison, a 59.18% response rate. Therefore, despite a low response rate, a marked difference has been noted. Furthermore, the interpretations made in this section are limited based on the categorical data (pass/fail) available. Therefore, the percentages provided and comparisons made are crude estimates of learner performance, particularly as other indicators are not taken into account that influence overall performance, such as learner socioeconomic status, teacher qualifications, and extent of resources available.

## Conclusion and Recommendations

Considering the sociocultural context of talent, the “articulation gap”, alongside other hindrances to university success for learners from educationally disadvantaged contexts, the next section highlights some of the ‘strategies’ proposed in the South African literature to address these challenges.

- **Increasing chances of success and retention in higher education**

Increasing success and retention rates and graduate output, according to Scott et al. (2007), rests largely on increasing the performance of the least well performing groups. Equity-related educational strategies should be implemented at systemic levels (i.e., curriculum structures, higher education qualifications frameworks, funding policies, teaching methodologies and learner approaches). Thus, apart from efforts aimed at improving teaching and learning approaches, Scott et al. (2007) argues that the higher educational qualifications frameworks need to be subject to critical inquiry. The traditional undergraduate programme structures, based on assumptions that the student intake is comprised of a relatively homogenous social and educational background, have exacerbating consequences for the problem of under-preparedness and undermine the talent potential of the current diverse student body (Scott et al., 2007).

- **Flexible curriculum design**

Erasmus (2010) proposes that curriculum design should adapt to learners’ linguistic, social, cultural and educational backgrounds. Furthermore, the assumptions underpinning curriculum design should be revised beyond its decontextualized traditional assumptions that fit a homogenous, privileged student

body toward one that reflects a diversified student population (Machingambi & Wadesango, 2012). *Scaffolding* through bridging courses, foundational and extended curriculum programmes, and “access courses” that focus on the total student experience are suggested mediums in which educationally disadvantaged learners can participate. Scott et al. (2007) propose that alternative curriculum and course structures need to recognize and strengthen students’ pre-existing capabilities, rather than impose on learners what these capabilities should be (as based on traditional assumptions). Goma (1997) suggests that local universities acknowledge that they are embedded within an African society. Thus the inclusion of African *indigenous knowledge systems* (philosophy, poetry, art, and religion) would affirm the lived worlds of a diverse student body to foster social belonging.

Alternatively, based on the results of a 2009 pilot of the South African Survey of Student Engagement, researchers (Strydom & Mentz, 2010) propose a four-year curriculum design, with the first year focused on a general education model, comprised of activities such as: community service-learning, writing-intensive courses, and foundation courses in literacy and numeracy, academic advising and seminars aimed at developing students’ diversity skills. The researchers argue that such high impact activities could provide “frontload support” to learners to enhance their preparedness for higher education.

- **Provision of foundational instruction tailored toward students’ needs**

While sector-wide outcomes research on foundational interventions is still forthcoming at this stage; accounts and experiences of individual institutions articulated in reports suggest that foundational provision should be tailored toward student profiles (Scott et al., 2007). Full year foundational courses are reportedly beneficial to incoming cohorts with a large majority of learners from educationally disadvantaged contexts. Extended or augmented courses (tailored toward the content of undergraduate programmes in which students are enrolled) could be integrated with traditional first-year courses that

not only cover the course material of the syllabus, but is 'forward-looking' focusing on academic conceptual skills as opposed to making up for deficits (Scott et al., 2007). Fostering such responsibility on the part of faculties and departments may be necessary to ensure accountability for quality assurance (Scott et al., 2007).

- **Integrate African languages as a medium of instruction**

The largely Eurocentric nature of the South African higher education system limits learners' access to instruction in their primary languages. Machingambi and Wadesango (2012) cite this as a barrier to mastery and/or success among those less well-versed in English. Motola (2005, as cited in Machingambi & Wadesango, 2012) has argued for the promotion of African languages in higher education to reflect multilingual South Africa.

- **Derive a deeper understanding of student diversity**

Although empowering conceptions of academic talent are offered, the caveat issued here is that these do not unwittingly fall back onto notions that assume essentialist identities implied in terms, such as "disadvantaged" or "marginalized" learners. While efforts are made to provide channels that allow students access to learning in their mother tongues, it is necessary to consider the shifting identities of learners from disadvantaged contexts as they transition within the post-apartheid context (Botsis, Dominguez-Whitehead & Liccardo, 2012). In Botsis et al.'s (2012) study, students and graduates of the University of the Witwatersrand Science, Engineering and Architecture departments, highlighted the social identity shifts associated with assimilating into the dominant language ideology and "transgressing" the boundaries of their mother tongue. Similarly, Jansen (2004) points toward challenges not so much pertaining to 'race' per se, but background class status and regional character of

students who study in urban institutions. These questions of identity embedded within a context of multiculturalism and multilingualism afforded by higher education institutions in urban environments are important considerations that impact on student adjustment, assimilation and acculturation within the social and institutional culture of the university largely having implications for retention in the long-term (Scott et al., 2007).

- **Involve students through student engagement**

Strydom and Mentz (2010) emphasize that higher education institutions need to become intentional about requiring students to engage in activities that facilitate their academic success. Importantly, rather than requiring learners to undergo a uniform set of experiences and activities, they are encouraged to select from a matrix of engagement activities offered by institutions that provide avenues to participate in educational practices. Engaging at this level of responsibility and participation could provide learners with an increased sense of individual agency, personal empowerment and collective belonging within the higher institutional context.

- **Improve social cohesion through diversity skills and activities**

Apart from individual and collective benefits on institutions and societies, diversity policies and practices also foster students' sense of belonging in a campus environment (Milem, Chang & Antonio, as cited in Strydom & Mentz, 2010). Some have suggested that universities need to play a more committed and decisive role in facilitating environments for social and personal development by devising interventions to encourage interracial connections. A summary of strategies outlined by Strydom and Mentz's (2010) review include: developing avenues to foster inter-racial and inter-group relationships (e.g., orientation

programmes, versatile student accommodations), offering diversity-related courses to enhance collaborative learning, and communicating policies on harassment and discrimination.

- **Increase resources allocation to university student support programmes**

University student support programmes (Higgs et al., as cited in Machingambi & Wadesango, 2012) tend to be fragmented in nature. Machingambi & Wadesango (2012) suggest that foundational programmes be extended beyond the first-year level to ensure smooth academic transition towards senior phases of undergraduate education. This would provide support to students who do not meet regular admission criteria and buffer the needs of at-risk students. Scott et al. (2007) suggest that foundational and extended programmes occupy the margins of higher education, owing largely to the negative views and the perceived costs associated with alternative provisions beyond the traditional curricula. Recognition by the state and continuous funding for a more flexible curriculum structure that prioritizes foundational and extended programmes is another systemic-level intervention that could counteract the high attrition and low-completion trends (Scott et al., 2007). Adequate funding would allow student support to be elevated to the core feature of the university functions.

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