*ALTER*NATION

Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa Special Edition No 17, 2015
ISSN 1023-1757

Student Access, Throughput and Dropout in Higher Education in South Africa

*** *Alter*nation is an international journal which publishes interdisciplinary contributions in the fields of the Arts and Humanities in Southern Africa.**
*** Prior to publication, each publication in *Alter*nation is reviewed by at least two independent peer reviewers.**
*** *Alter*nation is indexed in The Index to South African Periodicals (ISAP) and reviewed in The African Book Publishing Record (ABPR).**
*** *Alter*nation is published every semester.**
*** *Alter*nation was accredited in 1996.**

CORRESPONDENCE ADDRESS
The Editor: Alternation, Univ. of KwaZulu-Natal, Priv. Bag X10, Dalbridge, 4041, DURBAN, South Africa; Tel: +27-(0)31-260-7303;
Fax: +27-(0)31-260-7286; Web: http://alternation.ukzn.ac.za
e-mail: smitj@ukzn.ac.za; vencatsamyb@ukzn.ac.za
ISSN 1023-1757

*Alter*nation

Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa

Student Access, Throughput and Dropout in Higher Education in South Africa: A New Take on an Old Challenge

Guest Editors
Sadhana Manik
&
Labby Ramrathan

2015

CSSALL
Durban

Acknowledgement of Reviewers

We wish to acknowledge the participation of the following reviewers in the production of this issue of *Alter*nation.

Hsiao Chi (Angel)Chang, YMCA of the USA, California
Preven Chetty, School of Education, Pinetown Campus, UKZN
Mondli Hlatshwayo, Centre for Education Rights and Transformation, University of Johannesburg
Johane Hlatywayo, Sol Plaatje University, Kimberley
David Manyatsi, University of Swaziland
Lawrence Meda, Central University of Technology, Free State
T.N. Mafumo, University of Limpopo
A.K. Mahomed, Durban University of Technology
J. Mkhize, University of Zululand
N.S. Modiba, University of Limpopo
Muntuwenkosi Mtshali, School of Education, UKZN
Nkululeko Ndiweni, Lupane University, Zimbabwe
S. Ntombela, University of KwaZulu-Natal
E.M. Rapeane-Mathonsi, Durban University of Technology
C. Reddy, University of Stellenbosch
Mahsood Shah, The University of Newcastle, Australia
Vivashal Singh, Mission Heights College, Auckland - New Zealand

Editorial: Student Access, Throughput and Dropout in Higher Education in South Africa: A New Take on an Old Challenge

Sadhana Manik
Labby Ramrathan

This special issue of Alternation attempts to bring to the fore a nuanced exploration of student access, throughput, academic support and dropout to a fine-grained analysis of this deeply concerning state of affairs within higher education. Low student throughput and high dropout rates is a worldwide concern with several theoretical explanations and interventions, but with little success in improvement. Perhaps it is now an opportune moment to review what we know about student access, throughput and dropout from undergraduate to postgraduate level and to re-visit this concern through other lenses. This volume of Alternation aims to do just that. Through the range of papers, various vantage points of exploration are presented to open up spaces for re-imaging possibilities in addressing this serious concern of higher education efficiency.

The volume commences with a contextualizing article by **Labby Ramrathan and Daisy Pillay** presenting the status of the gains and challenges of student access into university studies, the current blame based socio-economic and socio-political discourses that have influenced the debates on student throughput, academic support and student dropout. The contextualizing article then argues for a re-imaging of the current blame based discourse to a more humanizing discourse. This argument is developed through an institutional case study of a higher education institution in KwaZulu-Natal[1], thereby pointing to a need for more nuanced exploration

1 This study was funded through the University of KwaZulu-Natal's Teaching and Learning Office.

within institutions to understand the complexities and multilayered realities experienced by students across the board, that impact on their studies within higher education. This advocates a student centred discourse that offers fresh insights into these complexities which the remainder of the papers in this volume attest to achieving.

Ted Sommerville and **Veena Singaram's** paper presents a longitudinal study on the assessment performance of medical students across their five-year curriculum. The study examined a host of factors, largely within the ambit of biographical characteristics that impacted on the assessment scores of students. Using a mixed methods approach, they delineate four statistically significant factors from their initial set of nine, across the five years, that wield independent influence on students' academic performance. These four influences comprise of students matric marks, the high school they attended, their previous higher education experience and the sequence of tests across the years.

In contrast, to Somerville and Singagram's approach, **Subethra Pather** and **Rajendra Pillay** adopt a different approach focusing on the first year student experience and academic performance of one particular student from a study comprising of eight students. Their paper provides a deep grained analysis of how the student mediates both the academic and social structures evident at the case study university. In addition, the authors unpack the role of habitus and social capital in the manner in which the student experiences university life and his academic performance.

Dudu Mzindle's paper on the voice of student dropout, argues from the standpoint that the persisting discourses on the socio-economic and the academic under-preparedness of students accessing higher education is inadequate to address the continued challenge of student dropout in HE. She argues for the need to deeply examine what she terms the **'**confounding factors and breaking point factors' that impact on student dropout and that greater attention must be given to the confounding factors in light of both students and institutions. She uses a tracer study methodology accessing students who have dropped out, to present the participants' reasons for their drop out with a specific focus of highlighting how these additional factors (and not only those of finance and academic performance)have merit for the dropout discourse.

Padhma Moodley and **Jesika Singh,** similar to Dudu, fashion their paper in the climate of the throughput and dropout rates discourses that has

been prevailing in SA higher education context. They likewise, reject a quantitative analysis in preference of a qualitative study which accesses students who have dropped out from HEIs. Their participants share through the instrument of interviews, their perceptions of how dropping out of university could have been prevented citing their reasons for dropping out: incorrect career choice, inadequate academic support and insufficient funding. Their study illuminates the need for departments to recognise poor performance and introduce academic support programmes for modules with a high failure rate.

Samu Mgomezulu and **Labby Ramrathan's paper** locates itself within the realm of academic monitoring and support in the undergraduate programme. They focus on academic support which has been provided to 'at risk' students. They access the experiences of 'at risk' students within the STAR programme at the school of teacher education in the case study institution using interviews and focus group discussions. Their findings prompt them to argue that process factors in the underperformance of students need to be examined in depth for their influence on student outcomes.

Zilungile Sosibo locates her paper in academic literacy (AL), an area which speaks to the discourse on students gaining epistemological access to HE crafting her article using scaffolding theory. She begins her argument by acknowledging the expansive literature on second-language students' poor academic literacy (AL) and its link to poor through put and dropout, She maintains that there is a need to share intervention strategies which enhance students AL amongst higher education institutions. Her paper thus reports on the challenges related to AL which students in both different disciplines and at various levels of study face at one case study University of Technology. She then further presents the intervention strategies that AL lecturers and those teaching literacy-related subjects employ in promoting students' learning.

Nicholas Munro and **Michael Samuel** present an entirely innovative gaze amongst the deficit grand narratives of failure and dropout amongst African students in higher education. In their paper on African students who excel in the higher education environment in one particular institution, they report on a study that examined exceptional academic achievement in African students. Utilising creative data generation methods of auto-photography and photo-elicitation, they select 3 participants for this paper to explain how these

participants excelled in an academic environment and the process of 'who they were becoming'. The value of Munro and Samuel's paper lie in the theorization of the concepts of 'retro[pro]spectivity' and 'co-regulation of learning' in explaining exceptional academic achievement among African students.

Whilst much of the focus on dropout and associated poor academic outcomes have focused on the undergraduate sector in higher education, **Bheki Khoza** and **Sadhana Manik** fashion a paper which has resonance with postgraduate throughput and dropout in a higher education landscape that promotes equity of access at the possible expense of equity of outcomes for postgraduate research students. Using the lens of student experiences, they hone in on the digital knowledge and skills challenges facing postgraduate students for whom research is a key component and digital competence is essential. Their study highlights the notion of 'digital technology refugees' in PG higher education and it reports that students required various forms of digital support across all their years of study.

Keeping with the thread of postgraduate study is **Suriamurthee Maistry** who zooms in on the doctoral degree as a requirement for local university teaching. He locates his paper in the arena of mid- and late-career academics who are under duress to complete a PhD, but opt to change focus from their discipline to researching their own teaching practice, by undertaking a PhD in Education. He thus chooses to examine how these students with little or no formal education qualification or with limited formal knowledge of educational theory and methods negotiate their experience at PhD level. In addition, he uses self-study methodology to critically reflect on his own practice as a PhD supervisor of this unique cohort. His paper is salient in illuminating some of the particular challenges which novice education PhD students encounter in making the cross-over to Education from their specialist disciplines.

The final article by **Sadhana Manik** provides an overview of some of the discussions related to selected discourses within student access and success in SA higher education, by undertaking a review of the recent local literature with the aim of highlighting the progress made towards understanding these phenomena and the gaps in knowledge that still require more research for greater understanding in the pursuit of achieving student success in South African public higher education institutions.

Editorial

Sadhana Manik
School of Education
University of KwaZulu-Natal
manik@ukzn.ac.za

Labby Ramrathan
School of Education
University of KwaZulu-Natal
ramrathanp@ukzn.ac.za

Re-Imagining and Expanding the Discourse of Student Access, Throughput and DropOut within the South African Higher Education Context

Labby Ramrathan
Daisy Pillay

Abstract
The enrolment in higher education has been steadily increasing since democracy however, there is a growing concern with respect to the efficiency of the public higher education system, largely attributed to the high dropout rates, low throughput rates and increased time-to-completion trends. Interventions to mediate this have been extensive including access development programmes, foundation programmes, academic support programmes and student services. However, the intervention discourses to address throughput and 'underpreparedness' is now entering its second decade with little evidence to show that any substantive improvements have occurred. This paper, therefore, argues for a re-imagining of the current discourses, based on an institutional case study of a public higher education, to an expanding discourse that includes a humanizing discourse from students' perspectives.

Keywords: humanizing discourse, students' perspectives

Introduction
The vital statistics provided by the Council for Higher Education (CHE)

(2013) shows clearly that the enrolment in higher education has been steadily increasing since democracy, recoding a total enrolment of just under 950 000 in 2011 from 450 000 in 1994. The indication is that the South African public higher education system is a healthy growing system. There is, however, an increasingly growing concern with respect to the efficiency of the public higher education system, largely attributed to the high dropout rates, low throughput rates and increased time-to-completion trends. Several studies (CHE 2013; HSRC 2008) have been done to establish the reasons for this low efficiency, many of which are linked to apartheid blamed, socio-political and socio-economic discourses that view the students as the problem. Interventions to mediate this student blame discourse have been extensive and wide ranging. These interventions included access development programmes, foundation programmes, academic support programmes and student services. The most recent in the intervention discourse is the proposed introduction of a flexible undergraduate curriculum (CHE 2013), in which up to a year of additional study space for support modules is added to the undergraduate curriculum to assist students within their study programme. Students can, however, exit the study programme a year earlier if they do not need such interventions and this is the 'flexibility' in this intervention strategy. The intervention discourses to address throughput and underpreparedness is now entering its second decade with little evidence to show that any substantive improvements have occurred. This paper, therefore, argues for a re-imagining of the current discourses, based on an institutional case study of a public higher education, to an expanding discourse that includes a humanizing discourse from students' perspectives.

The increased access to Higher Education Institutions within South Africa has not been met with its associated improved success and graduation rates (Department of Education 1997; CHE 2013), potentially working against the transformation agenda and with enormous cost implications. It is generally acknowledged that progression and retention rates at South African Universities rank amongst the lowest in the world (Letseka & Maile 2008); with graduation rates for white students being more than double that of black students (Letseka & Maile 2008; CHE 2013). This is despite the country apportioning the largest slice of its national budget to education. According to a report by the Human Science Research Council, as many as 40% of students drop out of university in their first year of study (University World

News 2008), with the graduation rate being in the region of only 15% (DHET 2013). These statistics are not very different from those released more recently by the Council for Higher Education (2013). The increased access with low graduation rates suggest that the equity of access has not translated into observable equity of outcomes and sustained over a long period of time, signaling a need to re-imagine and expand the discourses and debates on higher education efficiency with respect to student enrolment, throughput and graduation.

The demand for places in public higher education institutions in South Africa, and in most developing world contexts, far exceeds the actual number of places available. Several reasons have been advanced for this mismatch between demand and availability. These include, amongst others, opening up of access to previously denied population groups (as is the case in South Africa post-apartheid) (Cloete *et al.* 2000), development demands that requires a more global knowledge economy (Barnet 2013), employment opportunities and competition for jobs (Burke & Johnston 2004; Oyaziwo *et al.* 2012), and aspiration towards a technologically advanced society (Forde 2001; Adams 2012). In the face of this high demand for spaces within higher education institutions, is a serious concern for the student dropout. South African research studies suggest that less than one sixth of the students that enrolled in their undergraduate study programme complete and graduate from their programme within the minimum study period (HSRC 2008). These concerns have serious implications for the efficiency of higher education, and more especially within a transformational agenda. Several discourses have emerged across the world that attempt to explain this student dropout concern. These include, amongst others a race based socio-political discourse where the ills of past political policies and actions (as in the case of South Africa) have been blamed for the lack of infrastructural capacity to prepare students for higher education studies; a student poverty discourse focusing on lack of economic capital to support students in their higher education studies while promoting positive discrimination to increase participation of students from low socio economic sectors of the population (as in the case of India); and an academic discourse of student potential, or lack thereof, to engage in higher education studies. These discourses adopt a student deficit lens and the students are seen as the source of the problem.

The Status of Debates on Student Access, Throughput and Dropout within the South African Higher Education Context

As previously stated, the demand for places in public higher education institutions in South Africa, and in most developing world contexts, far exceeds the actual number of places available. Access into higher education within the South African context has largely been related to socio-political transformation from the ills of apartheid and transition into democracy, human rights and social-justice system of governance (Cloete *et al*. 2000; Bunting 2002). Historically, access to higher education was largely the privilege of the White population group, with some institutions being reserved for African, Indian and the coloured population groups respectively during the apartheid era. If students of different race groups wanted to access higher education institutions that were reserved for specific racial groups other than their own, they required governmental approval (Bunting 2002). Slowly, with the dismantling of apartheid through protest and sanctions, access into higher education altered to a situation where racial quotas became the discourse in higher education enrolment. Recently access quotas extended within racial groups with more recent emphasis now being focused on marginalized communities (related to geography rather than politically marginalization). Through this process students from outlying regions where the level of development, both, in the lives of communities and in the educational opportunities that are available to them, have emerged as the target group for higher education enrolment. Out of this recognition, institutional marketing for student recruitment as well as admission into university programmes for those located in geographically marginalized communities are being increasingly targeted by institutions of higher learning. The implications are that the student profile in higher education are being more complexly diversified with the main vectors of diversity expanding from race, economics and academic to include geography and school types (quintile rankings of schools based on infrastructural provisioning and poverty levels). Hence, while access figures into higher education has exceeded the transformational goal set in the early 2000's in terms of a race-based focus, the emerging focus on access is now on going beyond the race-based focus into nuances associated with opportunities and social justice, bringing about a new set of variables that needs to be identified and engaged with in addition to programmes of actions for intervention

through a social redress lens.

A further issue with access into higher education is related to the increase in demands and constraints in higher education capacity. In South Africa, approximately 17% of those who complete grade 12 school education have opportunities to access higher education across the 23 public funded institutions, while many more access the growing private higher education sector. The targeted enrolment as indicated in the National Plan for Higher Education (Lewin & Mawoyo 2014; Department of Education 2001) was 20% in 2001. In 2015 we have not yet achieved this target. The latest audited statistics indicate that in 2011, 931 817 students were enrolled in higher education across the public universities, growing from 495 000 in 1994. While the number of students accessing public higher education has substantially increased, the capacity has not increased commensurately. Hence a further discourse on supply and demand for higher education within a structural capacity focus needs to emerge, to not only address the increasing demand overall for higher education, but also to consider the impact of low throughput with higher demand for new admissions. In this respect, one needs to explore how selection criteria for admissions into programmes of study become an exclusion process.

With respect to throughput across university programmes, the current statistics are alarming and continues to trend in its current forms despite substantial interventions both systemically and institutionally. National studies in this area suggest that one in six students registered within South African higher education, graduate in minimum study time (Letseka *et al.* 2010) and that the student dropout rate is unacceptably high (Letseka & Maile 2008). Most recent statistics produced by the Department of Higher Education suggests that the average graduation rate across the 23 public higher education institutions within South Africa is 15% for undergraduate programmes (Department of Higher Education 2013). In response to this noted low graduation rate, several interventions have been made, both, by the state and by institutions. The responses included financial support to students in the form of bursaries and study loans and to institutions in the form of funding for programme support through access programmes, academic support programmes and foundational programmes. The most recent proposal by the Council for Higher Education (2013) is for a flexible undergraduate curriculum structure that allows for flexible exit from a degree programme based on whether the student needs additional academic support

at transitional points across the qualification. The proposal is to add an additional academic year to the three or four year study programme to cater for the additional academic support.

The interventions thus far suggest that the problem is located within the school education system and with the students and that higher education institutions must do something to rectify the low preparation for higher education. This deficit discourse has prevailed, even internationally where, for example, models of student integration (Tinto 1996) have been developed to keep students in higher education. However, through this paper, the gaze shifts from a student deficit discourse to a more humanitarian discourse based on a discourse of 'student experiences': not just of higher education experience, but inclusive of students' personal and environmental experiences that necessitate different decision- making.

Student dropout from higher education is a related issue to student throughput. A great concern is that almost a quarter of the students drop out from university in their first year of their study. These concerns have serious implications for the efficiency of higher education, and more especially within a transformational agenda. In South Africa, the reasons advanced for the relatively high student dropout from higher education have largely been linked to a blame discourse attached to the socio-political situation characterizing the South African political transition. However, the blame discourse is slowly being overshadowed by a discourse on students' experiences pointing to student departure and re-entry at later stages of their lives (Manik 2014). In the international domain and increasing entry into the South African field of inquiry is the student engagement discourse where surveys of student engagement (e.g. the SASSE survey) are being administered to explore issues, trends and patterns associated with how students are engaging within higher education institutions.

Having presented this status of debates on student access, throughput and dropout, the next section of this paper presents some key findings of an institutional case study to support the main argument being made, i.e. a re-imagining and expanding of the discourses on student access, throughput and dropout from higher education within the South African context.

Methodology

Our empirically based article draws evidence from an institutional case study

methodology located within an exploratory mixed method approach (Cresswell 2007). Drawing on the methodological critique of existing studies within the South African context, where research on student dropout have largely been through surveys, database analysis and secondary data sources, this empirical institutional case study attempted to get deeper insight into the phenomenon of student dropout by exploring the range of variables that could account for student dropout.

The choice of an exploratory mixed method approach, enabled us to examine the trends and extent to which student dropout exists, and the possible reasons for such trends and patterns, located within the daily practices, policies and interventions of that institution, all of which will be influenced differently across different institutions.

The case study institution is located within KwaZulu-Natal Province and is considered as one of the largest contact higher education institutions in South Africa. This means that the majority of its forty three thousand students attend face-to-face lectures. It has a diverse student population, including a significant number of international students, both from within and beyond its African borders. The university, through a merger between a historically White well-resourced institution and a historically Indian university, is a multi-campus institution having a two tiered governance structure, the senior executive structure and a College structure. Its academic programmes are located within the four Colleges, each College being led by a Deputy Vice Chancellor and Head of College. The institution is amongst the top five institutions within the country and is located within the top 400 institutions in two of the world ranking systems that rank higher education institutions. The institution is governed by several institutional policies and its vision and mission is located within its 2012 to 2016 strategic plan. With respect to student throughput management, the institution has a well-developed student support and retention policy that identifies, tracks, supports and monitors students' progress through their academic study programme. This support programme is located within the institution's Teaching and Learning Office under the leadership of the Deputy Vice Chancellor of Teaching and Learning. At the College level, College Deans of Teaching and Learning lead and manage College support for students.

The institution has several student support programmes, including academic counseling, career counseling, access to and support by traditional healers, language development support, skills training and School-based

academic development officers. The identification, tracking and monitoring system within the case study institution uses the analogy of a traffic light signal. A student who has completed progression requirements into the next semester of study would receive a green code. Students that do not meet progression requirements would be labeled orange and can receive several risk warnings. Students who, after receiving several risk warnings are then labeled red, meaning that they are to be academically excluded from their study programme. Students who have been identified as 'at-risk' are tracked and they are required to undergo identified interventions, managed through the School-based academic coordinator to improve their status. The 'at-risk' students are monitored through these intervention programmes and if students do improve their academic performance, their status changes back to green. If they have not improved, they will remain with an orange label and given another risk warning followed by probationary conditions. For students who do not meet their probationary requirements, their status changes to red and they are considered for academic exclusion. The student has an opportunity to appeal against this exclusion. The appeal is first considered at the College level and subsequently at the institutional level where several decisions can be made.

Data for this study was produced in 2010, 2011 and 2013, tracing the cohort from first year registration to the final year of study in each of the undergraduate qualifications offered at the case study institution. The empirical evidence is drawn from three vantage points that span across the higher education students' experiences, namely; a tracer element tracing students that dropped out of study, institutional statistics on student drop out and institutional support through academic development programmes. The empirical evidence is, therefore, presented in three parts, the analysis thereof and its contribution to the re-imagining of the student dropout discourse.

The quantitative analysis took the form of an institutional database analysis of the 2009, 2011 and 2013 graduating cohorts of students and tracked the original cohort's registration since first registration across all faculties in the institution. Patterns on completion time and dropout were explored.

The qualitative analysis took the form of several approaches. A random sample, computer selected, of thirty percent of students that had dropped out of university in each of the faculties were selected for telephonic interviews and biographical analysis as a tracer study dimension to the study. This was about exploring factors and reasons for student dropout, and what

had happened to students subsequent to them dropping out from the case study institution. Five Academic coordinators (one from each of five faculties) who provide academic support to the students identified as 'at-risk' were interviewed to explore what support they provided to students, what issues students were dealing with during their studies, and the reasons why they believe students were dropping out from university.

Key Findings of the Institutional Case Study: Findings on Student Throughput

Table 1: Graduation, Throughput and Dropout of First Entry Students Reported as at May 2013

	Degree Programme	Cohort Year	First Entry Enrollment	Graduated In Min. Time (Grad On Reporting Date)	Academic Exclusion	Currently Studying	Changed Qualification	Dropped Out
TOTAL enrolment across undergraduate programmes	3 yr prog	2010	6064	1204 (19.8%)	357 (5.9%)	2410	704	1310 (21.6%)
		2009	5147	910 (17.7%)	383 (7.4%)	2146	672	1027 (19.9%)
		2007	3923	916 (23.3%)	255 (6.5%)	83	539	803 (20.5%)
	4 yr prog	2009	2074	878 (42.3%)	97 (4.7%)	565	231	303 (14.6%)
		2008	1756	768 (43.7%)	73 (4.2%)	515	142	285 (16.2%)
		2006	1508	522 (34.6%)	100 (6.6%)	22	181	262 (17.3%)

Finding 1: DropOut across the Racial Groups are Persistently High and Points to a Larger Discourse on Student Dropout

Consistent with other national studies on student throughput (Council for Higher Education 2013; HSRC 2008; Letseka & Maile 2008), approximately a third of the students graduate in the minimum time to completion of degree. There are, however, differences between three year programmes and four year programmes suggesting that students registering for four year programmes, which are largely profession related programmes, fare better on graduation rates. As there are no differences in the provision of academic support across three and four year degree programmes, academic support would therefore not be considered as an influential factor in the differences of graduation rates. Further, reasons for a higher throughput and graduation rate related to four year programmes could include curriculum matters that account for an extended engagement in a focused area of study, greater maturity as students spend more time in a higher education environment and the development of professional conduct. Table 1 suggests that graduation in minimum time rates for four-year undergraduate programmes is almost twice as much that of three-year undergraduate programmes. The graduation rates across the three year reporting cohorts show no substantial changes. They range between 17% and 24% for three year undergraduate programmes and between 34% and 44% for the four year undergraduate programmes. Despite the substantial intervention in academic support, the graduation rates have not changed substantially. In fact, for the three year programmes, the graduation rates decreased across the reporting period, while for the four year programmes, there was a substantial jump in graduation from the 2006 cohort to the 2008 and 2009 cohorts. There is, however, a decrease in the number of graduates in minimum time from the 2008 to the 2009 cohort, suggesting that there may not necessarily be an upward trend in graduating rates. Rather, the substantial jump of almost 10% in graduating rate between the 2006 and 2008 cohort could relate to contextual issues which includes institutional merger and resultant changes, access and selection processes and programme rationalization.

The dropout statistics are equally of concern. There seems to be a slight increase in dropout across the three year programmes over the three reporting cohorts and a slight decrease in dropout across the four year programmes over the three reporting cohorts. These slight variations on

student dropout rates across the reporting cohorts could be attributed to student enrolment numbers that have increased over the reporting years. Of concern is that there has not been any noticeable decrease in student dropout rates across the three reporting cohorts despite the advanced student monitoring and support system in place and offered to students. The prevailing discourse explaining student dropout within South African universities have largely been based on socio-political, biographical factors (Hay & Marais 2004; Letseka & Mallie 2008; HSRC 2008; Department of Higher Education 2013). Hence a further analysis of student dropout in terms of student biographies is presented to explore any noticeable trends related to student biography. The most commonly available data on student biography as captured within institutions' database are race and gender, and for the purpose of this paper a race-based analysis is presented.

Table 2: Racial Distribution of Student Dropout

	Degree Programme	**Cohort Year**	**Total Dropout**	**African**	**Coloured**	**Indian**	**White**
TOTAL	3 yr prog	2010	1310 (6044) (21.6%)	807 (3780) (21.3%)	48 (134) (35.8%)	349 (1717) (20.3%)	104 (413) (25.2%)
		2009	1027 (5138) (20.0%)	634 (3004) (21.1%)	29 (135) (21.5%)	290 (1645) (17.6%)	74 (348) (21.35%)
		2007	803 (3923) (20.4%)	444 (2223) (20%)	28 (112) (25%)	203 (1093) (18.6%)	125 (385) (32.5%)

	4 yr prog	2009	303 (2074) (14.6%)	144 (932) (15.5%)	21 (208) (10.1%)	109 (834) (13.1%)	29 (100) (29%)
		2008	285 (1756) (15.0%)	127 (850) (14.9%)	7 (35) (20%)	88 (700) (12.6%)	33 (160) (20.6%)
		2006	262 (1544) (17.1%)	96 (561) (17.1%)	11 (52) (21.2%)	99 (650) (15.2%)	56 (244) (23%)

There is some degree of differences amongst the different race groups in terms of dropout rates which could be attributed to enrolment numbers. Race groups with lower student enrolment numbers tend to have fluctuating dropout rates, most noticeably amongst the Coloured and White population groups. Of concern is that within and across the race group the rate of student dropout across the three reporting cohorts are relatively stable. The highest head count of dropout is amongst the African students, yet proportionately across the three reporting years, the dropout is range bound. Indian students have the lowest dropout rate, followed by African students. Dropout across all racial groups in four-year programmes is substantially lower than in three-year programmes. Overall, across the three reporting years, student dropout has not shown any substantial improvement despite the substantial student monitoring and support services offered by the university. The race base analysis of student dropout as evident in Table 2 suggests that dropout across the race groups are consistently high and, therefore, a race-based focus on student dropout should be re-imagined on broader factors impacting on students across the race divide.

Finding 2: Students' Academic Performance are Influenced by a Range of Confounding Factors often not Related to The Academic Capacity of the Student

Through telephonic interviews with students that dropped out of university, it became clear that there are numerous reasons among most of the students which impacted upon their decision to leave university. Some students

revealed that at times a combination of reasons had a ripple, cumulative effect in leading them to drop out, while there was a single reason for others (such as relocation). A lack of finance was cited as a singular reason as well as in combination with other factors leading to drop out. The trigger point for the majority of students, marking their decision to drop out, was poor academic performance. While some of the reasons for students' dropping out from university were overt, probing through other questions, illuminated 'masked' factors that were the drivers informing students' decision to drop out from university. The cumulative factors became overbearing and the breaking point factor at the point of dropout was largely poor academic performance.

On introspection, poor academic performance may not necessarily be the main reason for dropping out as indicated in other studies within the South African context (Letseka & Maile 2008). Rather, poor academic performance may be the result of the confounding factors in the students' lives that prevented the student from doing well academically. Two examples are presented as strong evidence for this assertion. The first relates to career choice and the second to student migration issues.

Students, wanting to pursue higher education studies in KwaZulu-Natal, unlike their counterparts in other provinces of South Africa, apply through the Central Applications Office for admission into a particular programme. The application process, while it may seem quite ordinary, subtly forces students to make appropriate choices in their application forms. Students can make up to six programme and institutional choices in the central application form. Being centrally controlled, a potential student can only make a single application which is then considered by the different disciplines and institutions based on the choices made by the potential student. Based on the choices that they make, they are either accepted or declined admission.

With the high competition for access into a university in South Africa, and the limited number of spaces available within higher education institutions, students have to make strategic decisions of their ranked choices. This is because, in high demand programmes, only first choice is considered in the selection process. This means that if a student wanted to do Pharmacy, for example, and ranked Pharmacy as a third choice in his/her central application, s/he may not be selected into the Pharmacy programme if there was a large number of applicants for Pharmacy and that the Pharmacy

Discipline only considered students that had made Pharmacy as their first choice.

While initially being accepted and allowed entrance to university, some students articulated the position that the degree they had chosen was not a field that they were passionate about. For example, Amanda (a pseudonym, white female, and 22 years old) stated: '*I decided to quit because I did not have an interest in what I was studying. I spent a year in Business Studies in 2006. I spent the first semester of 2007 in B.Sc. … I lost interest'*. At times this realisation occurred only in the final year of their study, very late in the academic programme. The participant revealed that the selection that was made during registration was not the result of her own decision, but rather that of the module/programme coordinator, who would inform students that their initial choice was unavailable suggested an alternative route. This alternative was not a preference of the student, but they felt obligated to accept what was being offered to them if they wished to pursue a course of study in a higher education institution. This subtle, coercive way of enrolment forces students to make decisions on their study programme, the effects of which are only later realized, both by the student as well as by the institution. In this case, the need to be accepted into the university was a more powerful force than a personal choice of a programme, suggesting that forces within the institution led to the student's decision to quit studies.

A large percentage of the students that had dropped out from the case study institution, had, in fact, enrolled subsequently at another institution. As with the capturing of institutional data at many HEIs, there is no distinction in the institution's data between students who had dropped out to transfer to another institution, short-term departure and re-entry at a later stage. Quite a high percentage (63%) of the students traced (n=26) indicated that while they left the case study institution, they either transferred to another HEI or engaged in a short-term departure and later re-entered higher education and completed their qualification at another institution. Thirty four per cent (n=14) left to work and 3% (n=1) chose not to work or continue higher education studies. For example, Meera (a pseudonym, Indian female, and 22 years old) was awarded a bursary to study and enrolled at the institution, but because she wanted to pursue Genetic Engineering, which was not offered there, she then had to transfer to another institution to pursue her interest. This departure from the institution would be regarded as student dropout,

only to establish through a tracer study that she, in fact, had transferred to another institution.

The short-term dropout from the case study institution is rather a concept of stop-out than student dropout, suggesting that student dropout should not be considered as a negative action on the part of the student, but rather a discourse of resilience and perseverance, despite the odds against them. Thus, in the case of the majority of students who exited the institution, they should not be classified as a loss to higher education since they were merely transferring between HEIs. It is thus imperative to understand from the students why they resorted to departure from one institution and transferring to another, which is not the focus of this study. Thus, institutional statistics at the case study institution could be presenting a worst-case scenario with regard to student departure. Alternatively, institutional retention issues, as alluded to by Tinto, could be at the heart of student departure.

Finding 3: Academic Support for Students Identified as 'At-Risk' is Inadequate for the Needs of Students

From interviews with academic co-ordinators provide academic support at the level of Schools within the university structure, it was found that there was a simplistic response in the form of academic support (study skills, time management and additional tutorials) and superficial counselling to students who were considered at-risk of failing despite the complexities with which students come into campus. The simplistic responses by the academic co-ordinators is either because of their lack of appropriate knowledge and training as academic co-ordinators to deal with complex student issues or that there are limited options available to academic co-ordinators. The following cases of students as reported by the academic co-ordinators allude to:

Case 1: *The one I can talk about is a student who was raped, and as a consequence of the rape her grades had fallen. She thought she was dealing with it, but she actually wasn't. She wasn't attending classes and she wasn't getting her DP's. So I sat with her, chatted with her and counselled her to the best of my ability, and I made an immediate appointment for her with student counselling. After student counselling, she came back to me, what I do after that is every two weeks she's got to come and see me. We'd talk about her*

results, you know, personal problems, social problems. I think in terms of her self-esteem, I've seen her grow through that.

The student's lack of connectedness and involvement (Scanlon, Rowling & Weber 2007) in her academic studies and unhappiness (Yorke 2000) may be attributed to personal trauma. According to Pithouse-Morgan *et al.* (2013), human interaction and relationships are fundamental to pedagogy and Kerka (2002) points out that *experiences of trauma can impede learning, including difficulty beginning new tasks … inability to trust (especially those in power), fear of risk taking … eroded self-esteem/confidence, inability to concentrate*. However while the excerpt points to the benefit of 'chatting and talking' and the presence of strategic relationships (with academic coordinator or peers) it does point to the need for the academic coordinator to be able to have the required expertise and knowledge to guide and support the student to ensure successful social and academic integration after their traumatic experiences/s which is not evident in the above.

Case 2: *A student came very distraught, her dad had passed away about two years ago of HIV/AIDS. They discovered about a year ago that her mom is HIV positive. Her mom and her live in the same house but she says they just can't see eye to eye. That kind of tension is causing enormous stress on her psychologically and emotionally. So with her we had an hour session of just talking through things making her realise… she blames herself by the way, and talking her through the process …and with her as well I got the administrator to call student counselling immediately and to have them do the LEC 'Learner Evaluation Checklist'… we're just waiting for the results, because that happened recently.*

Research has shown that parents not only play a key role in children's primary and secondary education, but that they continue to play an important role in their offspring's college learning (Strage & Brandt 1999). Student's experiences of unhappiness and feelings of loneliness (Lawrence 2003; Yorke 2000) can be managed and supported through 'out of class support'. Higher education institutions need to be proactive in the kinds of support offered to students. The support needs to be inclusive and acknowledge diversity (Pather 2015) instead support in the above is misaligned to focus on Learner Evaluation.

Case 3: *The student was from the Congo and he did not have a lot of family here. His main problem was also financial. He was living at 'Res' that was also far away from campus. So it was not really about TIME*

management, he had a whole different set of problems. I am not able to help out with financial problems, but what I did was I went over the same kind of timetabling issues. Also when I could, I hired him as an SI (supplement instruction) leader). If students come to me with actual psychological problems, I then very quickly phone student counselling…obviously at the moment I have a grip… I am not qualified for this.

Experiences of loneliness associated with being foreigner is a growing concern and much literature on transition studies reveals that for students to successfully transition, they need to develop a sense of belonging and connection with new peer groups and the wider academic community. However, a further layer of complexity is attributed to socio-economic circumstances – students are adversely influenced by their financial constraints – and engaging in part-time employment does impact on their level of social integration and commitment to the institution (Pather 2015:258). According to her doctoral research Pather (2015) found that students' academic and social integration was influenced by their limited economic capital. It is apparent from the above that whilst the co-ordinator attempts to assist, she does acknowledge that she is not qualified to do so which brings to the forefront questions centering on an academic co-ordinator's roles, qualifications and abilities.

Drawing from these three case studies issues of isolation and loneliness influence students' experiences of life at university, and while achieving educational goals is a primary focus (Pather 2015) actions by academic coordinators are primarily provided to advance students' educational goals rather than their emotional and social needs.

Discussion and Conclusion

It is evident from this institutional case study that dropout across the racial groups were persistently high over the given period of years despite a range of academic support endeavours being in existence. Furthermore, academic support for students identified as 'at-risk' appeared to be inadequate for the needs of students. This also stemmed from the finding that university students' academic performance is influenced by a range of factors largely unrelated to the academic capacity of the student but impacting upon it. Hence, there is a need to re-imagine and expand the discourse on dropout.

While studies show (Thomas 1981) that the amount institutions make available in financial grants and loans increases black students' probability of graduation, Harro (1996) has observed that the cycle of socialisation in which stereotypical conceptions about different student groupings- in this instance 'at risk students', initiated across different levels of the university, have dangerous and damaging consequences. He adds that this normalizing practice sets different social identities in opposition by means of affirming one social identity at the expense of disparaging the other: successful students versus at-risk of failing/dropping out students. This formulaic approach that casts students who are perceived to be 'academically' in a different position locates them in opposition and inequitably in relationships and left unchanged – they are strengthened at a personal level (through peers, academics), at institutional level (school, university policies and practices) and in society in general (Hardiman & Jackson 2000). Students' stories suggest a conception of themselves as 'at risk' of failing as belonging to a different, unsuccessful student group – a Student at Risk. Being a foreign student presents an added layer of opposition and complexity within dominant discourses within South Africa and in South African higher education institutions that seems to generate anxiety (Pithouse-Morgan *et al.* 2013). So the challenge for us as a university community is, how can we re-imagine this normalizing discourse of 'at risk' and how do we re-imagine and then re-fashion our pedagogic settings and practices in ways that counteract the negative and devaluing societal constructions of deficit.

Clearly, having presented the findings from a multi-perspectival lens, this institutional case study offers a counter-narrative to the hegemonic blame based socio-political discourse, focusing solely on the higher education student. Moving from a fixed deficit stance opens up our sense making to multiple ways in which underperformance and ultimate dropout from university studies, may be understood. In attempting to explain such findings, we framed our analysis and discussion within a humanizing discourse perspective which rejects the objective scientific method as a way of studying people. Very simply argued, 'while the objective view asks 'what is this person like?' the humanistic perspective prioritises understanding people's subjectivity, and asks ', 'what is it like to be this person?' We find this helpful in making sense of the multiple forces and factors students have to negotiate daily when studying in a higher education institution. In the institutional case study and in other sustained engagement globally,

addressing student throughput issues with no apparent resolution, suggests that the search for an objective, universal truth or grand narrative has been futile. Our research findings and discussion points to what Higgs (2011) describes as the 'construction of plurality, pragmatism and judiciousness' as an alternate discourse. Thus, a more pluralistic, pragmatic and judicious (Higgs 2011) approach to understanding student throughput and dropout is needed. This pluralistic, pragmatic and judicious approach, informs our choice in adopting a humanistic approach that looks beyond universal reasoning to individual reasoning that is textured, layered and discursive.

References

Adams, O.O.U. 2012. Stakeholders' Perception of Fund Mobilization in Nigerian Public Universities. In Oni, S. (ed.): *Revitalising Nigerian Education in the Digital Age*. USA: Trafford Publishing.

Bandura, A. 1997. *Self-Efficacy*. New York: W.H. Freeman and Company.

Barnett, R. 2013. Wanted: New Vision of University. *University World News*, Global Edition. Issue 263.

Beck, R.A. 2011. *Retention and Drop-out Rates for a Sample of National Higher Certificate Students in the School of Accounting.* In Fulfillment of MA Degree in Cost and Management Accounting, Nelson Mandela Metropolitan University.

Bunting, I. 2002. The Higher Education Landscape under Apartheid. In Cloete, N., R. Fehnel, P. Maassen, T. Moja, H. Perold & T. Gibbon (eds.): *Transformation in Higher Education: Global Pressures and Local Realities in South Africa*. Cape Town: Juta.

Burke, J.B. & M. Johnstone 2004. Access to Higher Education: The Hope for Democratic Schooling in America. *Higher Education in Europe* XXIX.

Council for Higher Education 2013. *Vital Stats 2011: Public Higher Education 2011*. Pretoria: Council for Higher Education.

Council for Higher Education. 2013. *A Proposal for Undergraduate Curriculum Reform in South Africa: A Case for a Flexible Curriculum Structure*. Report of the Task Team on Undergraduate Curriculum Structure. Pretoria: Council for Higher Education.

Cloete, Nico, *et al.* 2002. *Transformation in Higher Education. Global Pressures and Local Realities in South Africa.* Cape Town: Juta and Company (Pty) Ltd.

Creswell, J.W. 2007. *Qualitative Inquiry & Research Design: Choosing among Five Approaches*. 2nd Edition. London: Sage Publications.

Crissman, I.J.L. 2005. Today's First Year Students. In Upcraft, M. Lee, John N. Gardner & Betsy O. Barefoot's (eds.): *Challenging and Supporting the First Year Student: A Handbook for Improving the First Year of College*. San Francisco: Jossey-Bass.

Department of Education 1997. *Education White Paper 3: A Programme for the Transformation of Higher Education*. Pretoria: Department of Education.

Department of Education 2001. *National Plan for Higher Education.* Pretoria. Government gazette.

Department of Education 2008. *Report of the Ministerial Committee on Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions: Final Report.* Pretoria: Department of Higher Education

Department of Higher Education 2013. Statistics on Post-school Education and Training in South Africa: 2011. Pretoria.

Freeman, D. 1996. The 'Unstudied Problem': Research on Teacher Learning in Language Teaching. In Freeman D. & J.C. Richards (eds.): *Teacher Learning in Language Teaching*. USA: Cambridge University Press.

Forde, M.L. 2001. A Higher Education Transition Pedagogy for Marginalized Populations: 21st Century Challenges, Opportunities and Benefits for a High-Tech Global Economy. Paper Presented at the Oxford International Round Table for Community College Presidents, St Anthony's College, July 1-6, 2001.

Fraser, Christine *et al.* 2007. Teachers' Continuing Professional Development: Contested Concepts, Understandings and Models. *Journal of In-service Education* 33, 2: 153-169

Gouws, S. & A. van der Merwe 2004. Managing Student Retention through the Assessment of Cost of Quality. *South African Journal of Higher Education* 18, 1: 252 – 264

Harro, R. 1996. Cycle of Socialization. In Adams *et al.* (eds.): *Diversity and Oppression: Conceptual Frameworks.* Dubuque, I.A.: Kendall/Hunt.

Hay, H.R. & F. Marais 2004. Bridging Programmes: Gain, Pain or all in Vain? *South African Journal of Higher Education* 18, 2: 59-75

Higgs, P. 2011. Towards an Ethical Framework for Inter-Cultural Dialogue. *Dialogue and Universalism* 2, 2: 13-22

HSRC. 2008. Why Students Leave: The Problem of High University Drop-out Rates. *HSRC Review* 5, 3: 8-9

Hardiman, R. & B. Jackson 1997. Conceptual Foundations for Social Justice Courses. In Bell, L.A. & P. Griffin (eds.): *Teaching for Diversity and Social Justice: A Sourcebook*. New York: Routledge.

Kerka, S. 2002. *Trauma and Adult Learning.* ERIC Digest No. 239. Available at: http://www.calpro-online.org/ eric/textonly/docgen. asp? tbl =digests &ID=124.

Lawrence, J. 2005. Re-Conceptualising Attrition and Retention: Integrating Theoretical, Research and Student Perspectives. *Studies in Learning, Evaluation, Innovation and Development* 2,3: 16–33. Available at: http://sleid.cqu.edu.au/http://sleid.cqu.edu.au.

Letseka, M. & S. Maile 2008. High University Drop-out Rates: A Threat to South Africa's Future. *HSRC Policy Brief*, March 2008.

Letseka, M. 2007.Why Students Leave: The Problem of High University Drop-out Rates, *HSRC Review* 5, 3: 8-9.

Lewin,T. & M. Mawoyo 2014. *Student Access and Success: Issues and Interventions in South African Universities.* Cape Town: Inyathelo: The South African Institute for Advancement.

Manik, S. 2014. Shifting the discourse: Student departure in the context of relative deprivations. *South African Journal of Higher Education*. Vol 28 (1). P 148-163

Oyaziwo, Aluede, Philipa O. Idogho & Justina S. Imonikhe 2012. Increasing Access to University Education in Nigeria: Present Challenges and Suggestions for the Future. *The African Symposium* 12, 1: 12-20.

Pather, S. 2015. *Pre-Entry and Non-Academic Factors Influencing Teacher Education Students' First-Year Experience and Academic Performance.* Cape Peninsula University of Technology: Unpublished Doctoral Thesis.

Pithouse-Morgan, K. *et al.* 2013. 'The Air is Hostile …'. Learning from an African International Postgraduate Student's Stories of Fear and Isolation within a South African University Campus. *Alter*nation 19, 2: 73 – 93

Ramrathan, L. 2013. Towards a Conceptual Framework in Understanding Student Dropout in Higher Education Institutions. *South African Journal of Higher Education* 27, 1: 209-220

Scanlon, Lesley, Louise Rowling & Zita Weber 2007. 'You Don't Have an Identity … You are just lost in a Crowd: Forming a Student Identity in the First-Year Transition to University. *Journal of Youth Studies* 10, 2: 223-241

Siegel, M.J. 2011. Reimagining the Retention Problem: Moving our Thinking from End-Product to By-Product. *About Campus.* American College Personnel Association and Wiley Periodicals Inc. January- February.

Strage, A. & T.S. Brandt 1999. Authoritative Parenting and College Students' Academic Adjustment and Success. *Journal of Educational Psychology* 91, 1: 146-456.

Tinto, V. 1993. *Leaving College: Re-thinking the Causes and Cures of Student Attrition*. 2nd Edition. Chicago: University of Chicago Press.

Thomas, G. 1981. College Characteristics and Black Students' Four-Year College Graduation. *Journal of Negro Education* 50,3: 328–345.

University World News. 2008. Student Drop-out Rates Alarming. Available at: http://www.universityworldnews.com. (Accessed on 17 June 2010.)

Yorke, M. 2000. The Quality of the Student Experience: What can Institutions Learn from Data Relating to Non-Completion? *Quality in Higher Education* 6, 1: 61-75

Labby Ramrathan
School of Education,
University of KwaZulu-Natal
ramrathanp@ukzn.ac.za

Daisy Pillay
School of Education
University of KwaZulu-Natal
Pillaygv@ukzn.ac.za

The Whole is Greater than the Sum: A Longitudinal Study of Demographic Influences on Medical Student Assessment Scores

Ted Sommerville
Veena S. Singaram

Abstract

The literature on academic success has contributed to our understanding of positive and negative influences on learners' accomplishments. With some exceptions, however, their subjects have been school pupils, who represent the community at large. Relatively few studies have examined tertiary education students, and these studies generally focus on subsets of a particular factor in isolation.

Taking a systems theory view, we addressed the question: What factors regarding the learner contribute to the teaching and learning 'system'? Using mixed methods, this longitudinal study explores a range of demographic characteristics that influenced the assessment scores of medical students through their five-year curriculum.

For the initial analysis we used the general linear model. A generalised estimating equation was used to analyse the characteristics collectively to assess their influence relative to each other. Students' and staff members' opinions on these factors were also explored through thematic analysis.

Of the nine factors investigated, only four appeared statistically to exert independent influences on students' academic achievements. These four influences (high school attended, previous higher education experience, the sequence of tests through the years, final school-leaving marks) seemed to

apply throughout the five year course. The variety of our interviewees' responses helped us to understand the nuances of these influences.
While not negating the findings of studies on isolated factors, this study does also challenge the validity of such analyses. The use of a different methodology – two layers of statistical analysis, plus qualitative data – allowed us to demarcate which of the factors examined appeared to be of overall significance in the system related to student achievement in assessments, and to understand why that might be so.

Keywords: demographic influence, medical students, student achievements, learner accomplishments

Introduction

'Each curriculum has specific requirements, favoring students with specific capacities related to motivation, competence, and sociodemographic factors' (Frischenschlager, Haidinger, & Mitterauer 2005: 59). This study, and others (Bloch 2009; Breier & Wildschut 2006; Christie, Butler & Potterton 2007; Coleman 1966; Kusurkar *et al.* 2010) examine factors influencing academic success. They document the effects of learners' age, culture, ethnicity, gender, health, language, and socioeconomic status, and of schools' ethos, leadership, staffing and physical resources.

The literature on academic success has contributed to our understanding of positive and negative influences on learners' accomplishments. With some exceptions, however, their subjects have been school pupils, who are representative of the community at large; relatively few studies have examined tertiary education students, who are a selected academic population. Additionally, such studies generally focus on subsets of a particular factor, and quantify the effects associated with these subsets in isolation. In reality, every learner represents a combination of several interacting factors. While yet more studies of single characteristics may contribute further pieces of the complex mosaic that is academic achievement, they are not likely to help us to understand how the pieces fit together, or how they interact to produce a positive or negative effect overall.

The medical school described in this study has been racially integrated for some 20 of its 60 years of existence. Undergraduate students

are currently admitted under a race-based quota, which contributes to the diversity of the academic community and brings its own challenges and contestations.

This article describes the first phase of a larger study (Sommerville 2012) using mixed methods to explore and describe demographic characteristics that might influence the assessment scores of medical undergraduates. To investigate the extent of factors' influence, we have examined students' marks in assessments throughout their five-year curriculum, rather than at a single point in time.

We describe the literature on demographic factors influencing academic achievement, and the methodology we used to examine these factors. The statistical method employed to compare aspects within each factor and that used to examine factors in combination are explained, and students' and staff members' opinions on these factors are illustrated. In conclusion we discuss the implications of the factors that appeared statistically to exert independent influences on students' academic achievements.

Elements Relating to Success or Failure in Higher Education

A number of factors appear to influence learners' academic achievements. Fraser & Killen (2005) and also Ngidi (2007) conducted studies at three South African universities, choosing a historically white, a historically black and a distance education institution. At the two contact universities, six of the top ten items identified by both students and lecturers as contributing to students' academic success had to do with motivation and application. The remainder of the students' factors covered similar aspects, while those of the lecturers included one item related to cognitive skill i.e. logical reasoning ability. Both students (33rd of 34 items) and lecturers (29th of 34) ranked general academic ability relatively low.

Relating to failure, three factors were common to both students and lecturers, although ranked differently. These factors related to students' application to their studies. The students included two aspects related to cognitive ability in their top ten. These were 'inability to perform well' and 'inability to distinguish between important and unimportant information'. The lecturers included two cognitive factors in their top ten: 'failure to attain the required depth of understanding' and 'inability to use higher order

thinking'. Students and lecturers ranked 'lack of academic ability' as 36th and 16th respectively.

We find it telling that most of the factors perceived as significant were not cognitive. This suggests that students' backgrounds in a broad sense may be significant with regard to their engagement with their studies, and thus may influence their academic achievement. Kuh's review of the literature on student success (2006) describes 11 background characteristics that provide its foundation, only one of these 11 – academic intensity in high school – relating directly to students' cognitive ability. Kuh *et al*. (2006) acknowledge the dominance of Tinto in this field; although Tinto's initial approach was in terms of student failure (Tinto 1987), we note that more recently (Tinto 2005: 2) he addressed student success, making the point that 'student success, however defined, is built upon success in one course at a time'.

The literature appears equivocal as to whether or not previous higher education experience (as distinct from age) is a significant influence on academic performance. A meta-analysis (Ferguson, James & Madeley 2002) suggests that past academic performance – without separating higher from secondary education – is a significant influence on future achievement, as one might expect. A study looking specifically at medical students with prior degrees concludes that age may be a more substantial influence than having a degree (Wilkinson, Wells & Bushnell 2004) regarding approaches to learning, motivation and attitudes, rather than marks. Others have commented on the risk of younger students allowing more mature students to take over the process in small-group learning (Benbow & McMahon 2001), but again this would not necessarily be reflected in the students' marks.

Elements Relating to Success or Failure in School

Christie *et al*. (2007: 9) reported that '...it is likely that the school attended may have more predictive value for post-school educational success than individuals' capabilities and effort'. The complex factors affecting education have been noted (Ball & Bruner 2006; Coleman 1966; Forde 2007; Henig *et al.* 1999; Simkins & Paterson 2005). Certainly, there are schools in South Africa that have been identified as being effective despite their having the same socioeconomic challenges as do other schools with a lower commitment

to education (Christie *et al*. 2007). Simkins and Paterson (2005) ascribe 10 – 30% of the variance that they found in language and mathematics performance of South African high school learners to the schools themselves. Bloch (2009) shows that the effects of poor schooling carry through to university: he records a 45% drop-out rate overall and notes that 67% of black students take longer than expected to complete their degrees. Haeck *et al.* (1997) and Yeld (2003) both point out that schooling affects higher education achievement. In terms of the quality of schools, Simkins and Paterson (2005), and Bruner (2006), comment on the tendency for the perceived disadvantages of rural schooling to be aggravated by urbanisation. This tendency may be part of the explanation for the 'elusiveness of education reform' noted by Henig *et al.* (1999). Forde (2007) writes of the struggles of black high school students on the Cape Flats (on the outskirts of Cape Town) to succeed despite a home background of hunger, lack of resources, and family responsibilities, and a school environment of rundown buildings, too many pupils, and too few desks, books and teachers. Ball's (2006) book echoes this description. Kohr *et al.* (2007) compare achievement in mathematics in various Pennsylvanian high schools with respect to socioeconomic status, sex and race. They find no differences attributable to sex, but that white students generally fared better than black students, and that black students were disproportionately disadvantaged in schools serving low socioeconomic areas. These findings appear to confirm exactly one of the findings of Coleman's (1966) landmark study from forty years previously, which documented that race and socioeconomic disadvantage were commonly linked and that Afro-American students tended to do worse in schools serving that group exclusively.

It is evident from the range of topics dealt with in the literature on teaching and learning that several factors may influence academic achievement. Essack *et al.* (2010) analysed student throughput data in various health sciences, from the perspective of institutional support. In this article, we address a number of demographic factors and their interaction, which may serve to identify both successful students and those who may need assistance.

Methodology

Ethics approval and gatekeepers' permission were obtained from the University of KwaZulu-Natal (UKZN). Interviewees gave written informed

consent. Taking a systems theory view that each element in a system affects, and is in turn affected by, other elements (Laszlo & Krippner 1998), and bearing in mind the work of Essack *et al.* (2010) on the aspects of teaching, we addressed the question: What factors regarding the *learner* contribute to the teaching and learning 'system'? We used mixed methods, delineating quantitatively which demographic factors were influential, and illuminating these qualitatively by the reasons given by respondents for the significance of these demographics. (In terms of Greene *et al.* (1989), this study would be categorised as 'Complementarity', corresponding to the 'crystallisation' of Richardson and St. Pierre (2005). Just as different facets of a crystal give different views of the interior, so quantitative and qualitative methods provide complementary insights into the object of study. Following the systems theory research sequence (Laszlo & Krippner 1998), we explored the existence of discrete entities, striving for understanding of these factors in order to integrate the perspectives thus gained into an understanding of the whole. The authors, as members of staff, had extensive contact with students, but were not directly responsible for assessments. We have each worked at the medical school over a number of years and consider ourselves informed interpreters (Eisner's (1998) 'connoisseurs') of the qualitative information that our respondents shared with us.

Quantitative

We documented the assessment marks of a complete first-year medical class as a convenience sample, and followed them for the five years of their programme. To enable direct comparisons to be made, we traced only those students who progressed with the cohort; students who dropped out or failed were not followed any further. We did not include all assessment marks in the first three years, when material was assessed a second time at the end of each semester. Thus, the marks analysed represent students' first summative assessments at each stage, whether theoretical or clinical. Marks were analysed in terms of various demographic parameters available to us through objective records. Data such as students' attitudes, home backgrounds, etc., were not included due to reservations about the accuracy of these data in our setting (Simkins & Paterson: 2005). The data gathered were:

Race' (categorised according to the apartheid system: Black/ White/

Indian/ Coloured)
First Language
Sex
Age in first year
Source of finance (self or family/scholarship or bursary/ NSFAS[1] support)
Academic status (fresh out of school / higher education experience/graduate)
High school (categorised by socioeconomic quintile[2])
Successive test marks (six to eight per year over the five year programme)
'Matric points'[3]

Data were uploaded into MS Excel® spreadsheets, collated into one dataset, rendered anonymous by removal of identifying information, and transferred to SPSS®. For the initial analysis we used the general linear model (GLM), which is an all-embracing term that includes comparative tests such as the t test, ANOVA and regression analysis (Field: 2009: 350), and can include matrices representing sets of data to make multiple comparisons (Trochim 2006). The relationships between demographic characteristics and

[1] The National Student Financial Aid Scheme of South Africa was established by act of parliament in 1999 'to ensure that students, who have the potential, but cannot afford to fund their own studies, will have access to funding for tertiary education'. Available at: (https://www.nsfas.org.za/web/view/students/student_home/student home).

[2] An indication of the socioeconomic status of the community surrounding the school – used by the government in calculating differential funding of schools based on 'income, unemployment rates and the level of education of the community'. Available at: (http://www.create-rpc.org/pdf_ documents/Policy_ Brief_7.pdf).

[3] For reasons of simplicity and transparency, the medical school grants admission to prospective students (primarily according to a 'race'-based quota) secondarily on a point system based upon their school-leaving examinations (with extra weight being allocated to mathematics, science and biology marks).

the students' 32 test scores over the five years[4] were examined, the programme taking assessment marks and subsets of a single characteristic for each separate analysis.

The GLM examined *individual* characteristics for their relationships to the students' marks over the five years (e.g. variation between students classified by 'race'). A generalised estimating equation (GEE) was used to analyse these characteristics collectively to assess their influence *relative to each other* (e.g. 'race' *and* language *and* school…). The GEE procedure allows repeated measurements to be analysed (e.g. student test marks on 32 occasions), and allows handling of clustered data (Hardin & Hilbe 2008). A GEE is able to test whether one or more factors is an independent influence on students' results. Use of a GEE also confers the advantage of being able to deal with multiple factors and multiple measurements over time, particularly when the time itself is not of primary interest (Liang & Zeger 1986).

Qualitative

When the study cohort was in the third year, halfway through their programme, and had experience of both preclinical and clinical phases, one author (TS) interviewed 19 students purposively chosen to represent the demographics of the class. Interviews were conducted in groups, or, on three occasions, individually. To stimulate discussion, a series of graphs was provided that depicted (past) students' assessment performance portrayed according to the demographic characteristics under study. Six lecturers, chosen from pre-clinical and clinical sciences, and from the spread of race groups represented at the medical school, were interviewed individually in a semi-structured format, and were also asked to comment on the graphs. The comments were recorded, transcribed, returned to the respondents for ratification, and then rendered anonymous. Themes were grouped according to the demographic characteristics studied.

Findings and Discussion

Of the 202 students in the first year class, 146 progressed to 5th year. The de-

[4] Students who failed a year and dropped back to join the next cohort were not followed further and thus had fewer than 32 test marks analysed.

scriptive statistics, graphical relationships, and results of the multifactorial GEE analysis for the demographic factors explored are presented with the respective respondents' comments. The order of presentation is according to the relative influence of each factor according to the GEE (i.e. combined) analysis.

High School (5 – 11% Influence on Marks)

The high schools previously attended by 127 of the initial cohort of 202 students could be classified according to their quintiles. There were 9 students from quintile 1 (Q1) schools, 4 from Q2, 8 from Q3, 13 from Q4 and 93 from Q5. For the purpose of comparison, we added a 'sixth quintile', comprising 21 students from independent (i.e. non-state) schools.

Figure 1 illustrates that students from Q1 high schools did significantly ($p < 0.001$) worse than the rest, which were indistinguishable from one another. Although the Q1 line approaches the others during 4th year, this is as a result of most of the Q1 students having failed and fallen out of the cohort; the best of that group, who survived through to 4th year, failed that year, hence the Q1 trace ends. Although the other five quintiles appear to converge slightly between the beginning of 1st year and the end of 5th year, attrition of weak students may have had a similar effect to that seen in Q1. Having attended an independent (private) school (Q6) did not confer a particular academic advantage, possibly because resources at such schools are used for extracurricular activities as well as for directly academic pursuits. Finally, although Q2 schools were not statistically distinct from Q3 to Q6 schools, the Q2 line on the graph tends to lie above the others (although there were only four Q2 students and these four might simply have been exceptional individuals).

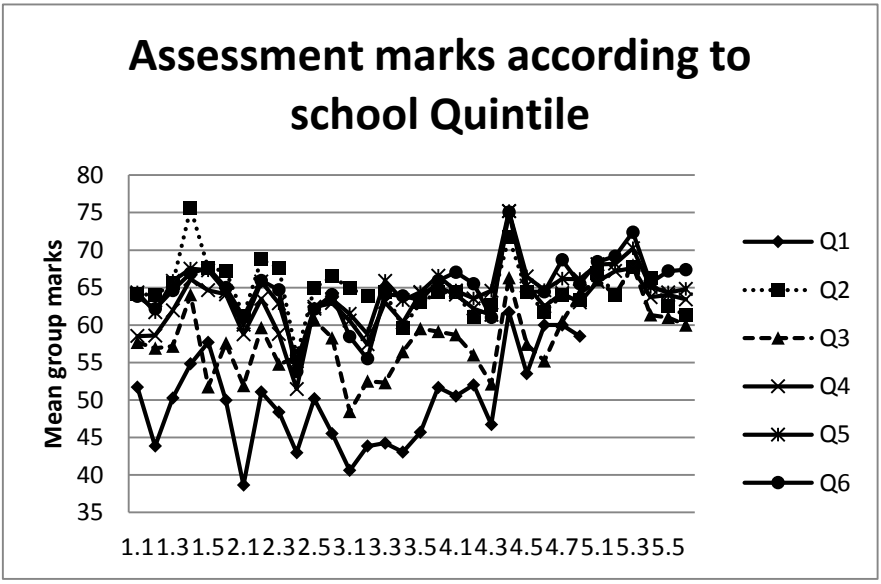

Figure 1 Aggregate Assessment Marks over Five Years According to Students' High School of Origin, Classified by Quintile.

x axis: Successive tests over five years (six tests per year except for eight in year 4).
y axis: Average mark (percentage) for students in each group.

Commenting on the relative capacities of different kinds of school to produce students with ability, one respondent said:

> ... the [ex-]HoD[5] schools – I can talk for them – they are generally the ones that are living in the townships. They don't have the money; they go into school and they are very high achievers in terms of academia, because that's the only thing that they have.
>
> Dr Pillay11; 533-536[6]

[5] HoD: House of Delegates – the former legislative body for Indians.

Dr Pillay also pointed out some of the social circumstances that might have a bearing on schools in different areas.

> ... you have a lot of problems in townships, with lifestyle problems: the drug addictions; you really work under very difficult conditions in respect of peer pressure, etc., and I don't think it's the same for rural schools, with this alcoholism, parenting that's not there. Although they may not have parents and they may be migrant labourers, the fact that they're rural: they still have some kind of stability. [Mm] and safety.
>
> Dr Pillay 11; 545-550

Dr Pillay's observations refer to the wider issues of culture that underlie the features of race and schooling. Zodwa, comparing two ends of the state school spectrum – namely former 'Model C' schools that charge fees to enable the hiring of extra teachers to reduce class size and increase the number of subjects offered, and rural African schools suffering from a presumed dearth of resources – saw the advantages of attending the former.

> Children that are going to these [ex-] Model C schools and that do form part of the black community – they have it easier, I guess, and it's not that much of motivation. You know you've got back-up; you know you have your parents that are doing certain things for you. And those who are in the rural schools, they really need – they would take any chance to get out and do something with themselves so that they can bring something home. And some of them are really disadvantaged and the best way to – for them forward is to really push hard – and work hard.
>
> Zodwa 1; 626-632

Dr Hlubi observed that there is more to education and learning than the type of school one attended. Despite being able to attend the same schools, external circumstances might differ to such an extent as to confer advantages on one group and disadvantages another group of learners.

> The other problem *here* [i.e. at ex-Model C schools] is that – which people have complained about, even in the media – is that students

> will be given assignments by the school, while they're still at school, before they even come to university. Now *these* [i.e. Whites and Indians] will go home and look at the newspapers, look at the internet and look in the library and do their assignments and be better prepared. *These* ones [i.e. Blacks] will go back to the township, although they are studying in a Model C school, which is a good school, but they go back to the township; it's not easy to get a newspaper, no computers, no Internet therefore, and no libraries, so these [B], it wouldn't be so easy for these to prepare that assignment than this one, therefore *these* [W, I] will be better prepared for university than *these* [B].
>
> Dr Hlubi 13; 495-502

We assume that the government's categorisation of schools into socioeconomically-based quintiles provides an index of the quality and quantity of the resources available to those schools. However, assigning a particular school to a particular quintile does not automatically imply that the school is equivalent to all other schools in that quintile; indeed, it has been shown that some schools in straitened circumstances can deliver good quality teaching while others in similar positions cannot (Christie *et al.* 2007; Chutgar & Kanjee 2009). Numerous advantages and disadvantages of the various types of schools were advanced by the respondents. A student from a school perceived to be disadvantaged may excel in those adverse circumstances, and continue to excel when allowed access to higher education. This is likely to hold, whether the school is disadvantaged in terms of its location (rural) or in terms of its community's socioeconomic status (Q2). The local and international literature affirms that the quality of a school is reflected by the quality of achievement of its students, and that these effects may be long-lasting. What is surprising in this study is the magnitude of the effects (~ 11%).

In the GEE comparative analysis, the high school that a student attended appeared as the greatest influence on test marks. When considered in isolation, Q1 students can be distinguished from all the others, but in the GEE analysis all quintiles were highly significant influences (Q2 however still showing the largest effect). It is disconcerting that, so many years after the stratification of schools on a racial basis came to an end and resource allocation was instituted on a more equitable basis, the effect of having

attended a particular school is seen to loom over its past pupils for up to five years (Figure 1). While the literature supports the importance of schools as an influence, its duration appears not to have been previously documented.

Higher Education Experience (-8 – +8% Influence on Marks)

Of the 202 students in the initial cohort, 166 had come directly from high school, 19 had had a year or more of higher education, 10 had previously completed other degrees, and 7 were repeating the year. The marks of these four groups in successive tests are depicted in Figure 2.

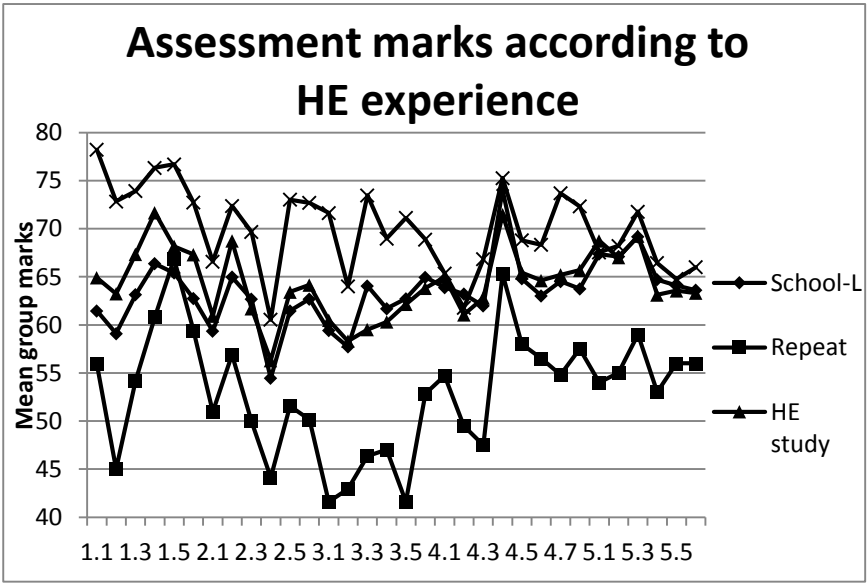

Figure 2: Assessment Results over Five Years According to Student Status in 1st Year.

School-L = school-leavers
Repeat = students repeating 1st year
HE Study = those who had already commenced some higher study

Degree = those who had previously completed a degree
Axes: as above

Analysis confirmed that students' previous academic status made a significant impact ($p = 0.002$) on their test marks. Because of small numbers in some of the groups, post-hoc tests could not be performed to determine exactly what the differences were between the groups. It can be seen that those seven students who were repeating 1st year continued to perform poorly. The exception was the test at the end of Theme 1.5. The greater clinical relevance of that Theme (Reproductive Health) might have helped these weak students. However, when they encountered new content in 2nd and 3rd year, their marks progressively deteriorated. The apparent improvement in the later years can be ascribed to students falling out of the cohort; only one survived to 5th year (but failed two assessments in that year).

Students directly from high school progressed adequately over the years, and both those with a year or more of previous exposure to higher-level study, and those who had previously completed degrees, excelled. A general pattern of dips at tests 2.1, 2.4 and 3.2 can be seen (see also Figure 3 – assessment averages). Although the gap between school-leavers and those with prior higher experience narrowed over the course of the programme, degreed students tended to maintain an advantage throughout.

Those students with limited higher experience tended in most tests to perform slightly better than did the school-leavers. This contradicts the view previously expressed, that students who were 'not good enough' to be selected for medicine on the basis of their school-leaving exams had found a 'back door' into medical school. These students, accepted by transfer from other degree programmes, established by their results that they did in fact have the capacity to cope with medical studies.

Comments on the relative achievements of the four groups of students reflected the expectation that students with some prior higher experience would perform much better.

> I always have just thought that they would be the upper notch. Even during exam stress time, those that we do stay with around close, they are our friends – they have it all planned out. We're like 'OK, I'm still struggling'.
>
> Zodwa 1; 519-52

> I was expecting that the mature students would do better, because they are familiar with tertiary learning...
>
> Dr Hlubi 13; 408-409

Those, like Lungi, who came to medical school with a prior degree, viewed students coming directly from school as being too young and inexperienced.

> I think for, like the students that are coming from high school, it might have been a bit of a shock for them, and a bit of, like 'Wow – what's going on?' because for them, I remember in high school, we used to sit down from 8 to 6, get lectures, and the teacher would be there to solve the solutions and go through everything with you, and you study whatever's in the class. There's no – if you do a little extra work – the cum laude questions type of thing. So for them I think it might have been a bit of a difficult thing because you also have to remember it's not just about studying; it's about the, the mental maturity of the person.
>
> Lungi 3; 37-43

There was a sense that students repeating 1st year were destined to struggle academically.

> The repeats struggle is because they were isolated, or lost souls or –?
>
> Dr Pillay 11; 438-439

> In terms of those that are repeats, this is in keeping with what one observed in practice. [Mm] these repeat students tended to do very badly when they came to the clinical years and it's this group of students that there were a lot of failures and repeats, and even their performance was very poor.
>
> Dr Hlubi 13; 401-404

Given that respondents were commenting on a (previous) graph that showed little distinction between school-leavers and mature students, the paucity of explanations for the latter's greater success in medical studies is

understandable. Our judgement, nevertheless, is that the various explanations advanced could well be valid for the groups of students referred to in this section. Apart from being intuitively believable, they agree with the evidence from the literature. Students' higher education background was the second most influential parameter in the GEE model. Having already completed a degree or having spent *any* time previously in higher education conferred an advantage – a completed degree having the greater impact. Not surprisingly, repeating 1st year (although this entailed previous – and highly pertinent – higher education experience) had a negative effect compared to entering directly from high school.

Sequence of Tests (2 – 3% Difference to Marks)

Of the 202 students who began 1st year medical studies together, the 146 who completed the five-year programme scored an average of 62.2% over the 32 assessments. This mark varied from test to test (Figure 3).

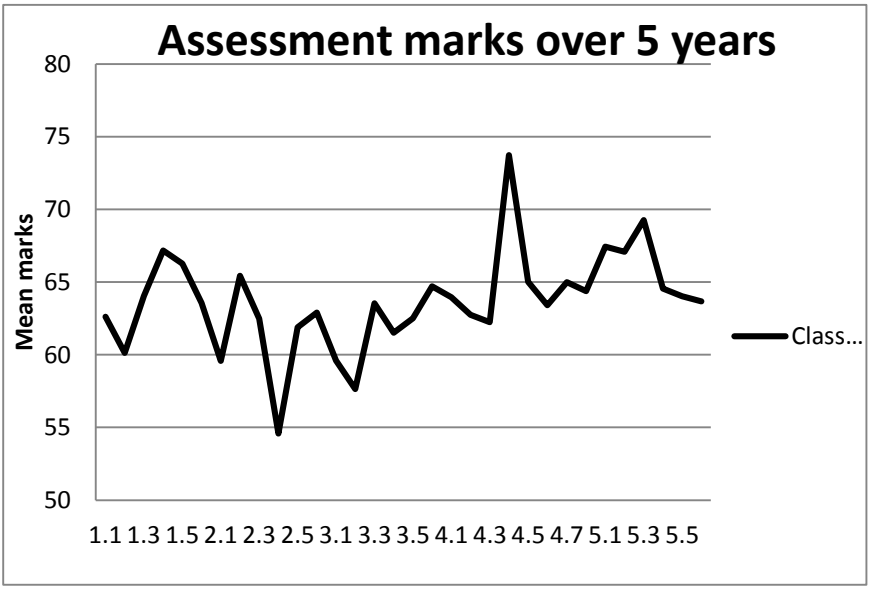

Figure 3: Class Average Assessment Marks over Five Years.
Axes as before.

Over the five years, a difference of almost 20% was evident between the lowest (2.4) and the highest (4.4) class average. Theme 2.4 ('Body in motion') is recognised to be a difficult Theme, as are the others with relatively low marks: 2.1 ('Cardiorespiratory') and 3.2 ('Cell dysfunction'), all of which contain content and concepts that students tend to find difficult. Those who teach Block 4.4 (Forensic Medicine) put a great deal of thought and effort into teaching their subject.

As seen in the graph, compared to 1st year (year average: 64.0%) students' marks were poorer in 2nd year (year average: 61.1%). They improved again in 3rd year (year average: 61.6%), continued to do so in 4th year (65.1%), and maintained that level in 5th year (66.0%). This decline in 2nd year – particularly in light of the relatively small contribution of 'matric points' as a factor (see the following section) – suggests that the transition from high school to university may have been less momentous from 1st to 2nd year. The failure rates in the five years (based on end-of-Theme test results combined with end-of-semester exam results) reinforce this perception: there were 7 failures in 1st year (plus 2 who left for other reasons), 9 (plus 1) in 2nd year, 23 (plus 1) in 3rd year, 13 in 4th year and 2 in 5th year. Of the student interviewees, only Krish and Marcus remarked (without comment) on the fact that the 2nd year marks were lower than those of 1st year, but offered no explanation for this. Drs Pillay and Hlubi speculated that there might have been difficulties with particular Themes, while Dr Patel focused on the fact that the marks generally increased again after 2nd year, implying that the students took two years to become accustomed to the programme.

> Then you can look at what the Theme was and what could be the problem if there was a difference.
>
> Dr Pillay 11; 353-354

> I can only postulate as they went into 2nd year they were more – there was more information they needed to put in, together with the prior knowledge that they had been getting, and also possibly with the confusion – when you learn about the cardiovascular system here and you think you've mastered it and then someone comes with the urogenital system and confuses you further and says the control of the blood pressure also has to do with the kidney and other things – could be; it's just a postulation. Dr Hlubi 13; 370-375

> OK, so we reckon that this thing goes up from 2nd year because the students are more *au fait* with what's going on and the mechanisms of assessment and so on.
>
> Dr Patel 12; 870-1

The sequence of Theme tests over the five years studied was revealed by the GEE to be the third most weighty factor. The slight upward trend with time implies that the increasing age of the students over that period, which the literature associates with improving assessment marks, may be a factor here; it may reflect students' increasing cognitive skills. The variation between Theme test marks raises the question of whether Themes' content and/or the assessment thereof were appropriately aligned; a matter of the difficulty in standardising the level of difficulty of successive Themes' tests.

'Matric Points' (1% Difference to Marks)

The 187 students who wrote a South African school-leaving examination had a median matric point score of 44.5, with a range of 25 – 50. We have compared those above and below the median score to illustrate the influence of that parameter (Figure 4).

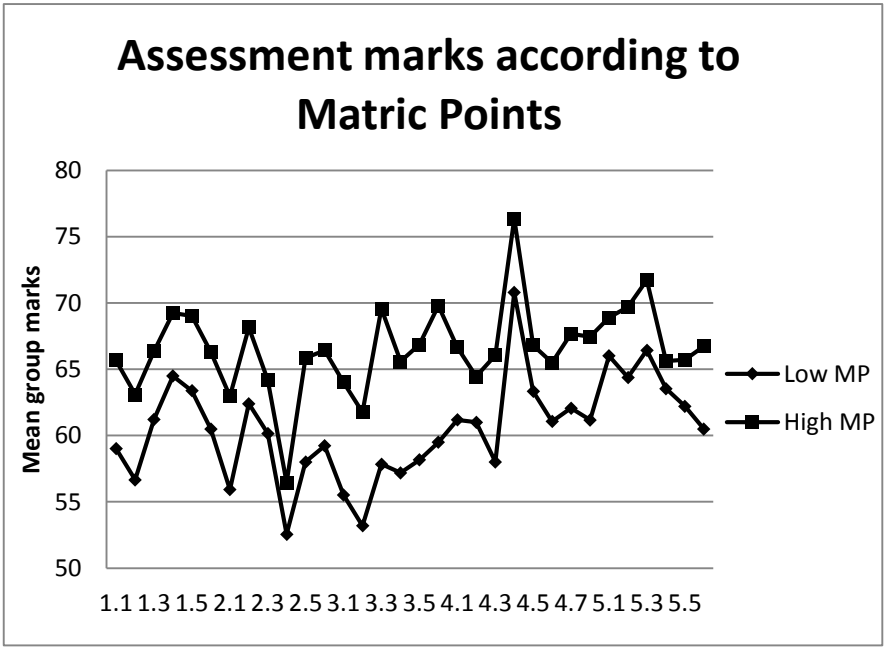

Figure 4: Assessment Results over Five Years According to Matric Point Score

High MP = Upper half of class
Low MP = Lower half of class
Axes as before

The GLM comparison showed a highly significant ($p < 0.001$) difference between these two subgroups, but since the matric point scores were highly skewed toward the upper end of the range, the validity of a direct comparison on this basis is questionable. The actual effect of a student's matric point score in the GEE comparison was in any case small compared to other parameters. It remains a truism that past academic achievement predicts future academic achievement (Ferguson *et al.* 2002); however, once in the post-matric academic world, school achievements are evidently of less importance. (Respondents were not asked to comment on this relationship, since we did not have a graphical representation of this parameter from the previous study.)

Combined Comparisons

In contrast to the four factors described above, in the GEE comparison, the influence of the other five demographic parameters studied (Race, Sex, Finance, Age, Language) disappeared when all nine were combined. Significant differences were seen between 'race' groups when those groups alone were analysed using the GLM. We find it remarkable that in a cohort of students displaying a range of diversity in each of the five factors mentioned above, none of the factors was seen, by GEE analysis, to exert a significant effect in comparison to the rest. We do not contend that race, language, sex, age and financial status are not substantial, and are sometimes crippling, concerns for learners, nor that vigorous efforts to address these issues are fruitless. The end result of our analysis, however, is that these factors do not appear in the aggregate to have influenced students' academic performance as measured in the tests we examined. We argue that the GEE, by combining factors, better reflects the dynamics in reality than does the isolated examination of single factors.

Conclusion

The study we report on explored in greater depth, at a higher educational level, with a different methodology, and across a larger number of influences known to bear on learners' academic performance, than previous studies. Although such performance and its assessment may be thought of as a purely cognitive construct, in fact most factors found to exert an influence were, in this and other published studies, non-cognitive.

Our use of mixed methods and two layers of statistical analysis has allowed us to delineate which of the factors examined appeared to be of overall significance in the system related to student achievement in assessments, and to understand why that might be so. We do not suggest that sophisticated statistical manoeuvres negate the considerable understanding that qualitative methods bring to light on research topics. We do, however, suggest that gathering as many types of data as are available and combining them may yield significantly greater insights, since synthesis may construct a more meaningful picture than analysis of its components.

This study shows some congruence and some surprising contrasts with the literature. The type of high school attended, learners' previous

higher education experience, the sequence of tests through the years, and school-leaving exam results, were independently significant factors when combined with the other factors available to us. With the unexpected exception of the test marks, the other three factors agree with findings in other contexts. On the other hand, 'race', language, age, sex, and financial assistance become inconsequential when combined in one comparison, despite some of these other factors showing significant effects when considered *on their own* and despite respondents' and other researchers' perceptions of their importance. It is intriguing that, amongst demographic variables that have been shown to be influential in various settings, so many turned out *not* to be independently influential on the performance of this select group of higher-level students. Essack *et al.* (2012) concluded that, amongst students studying other health sciences at UKZN, race, English as second language (as proxy measure for disadvantage), and matric points (as proxy measure for admission via alternate access) were all significant factors. These arose in a study related to the institution's quality of teaching, and were discerned in patterns of class results. Our study, while not negating these findings, challenges the validity of isolated factor analysis.

As systems theory suggests, we found that various elements of our construct of influential factors were interdependent. We have described the context – at the medical school in question, and in the world of education broadly – of our study. In this analysis, the constituent parts of significance are fourfold. Students' previous high schools – with the understanding that even within quintiles there may be geographical differences, with their own sociological differences in communities and individual families – may provide an escape from the poverty trap, and thus a motivation to succeed in adverse circumstances, as described by Zodwa. However, in general, their high school exerts a large and long-lasting influence over most students. A prior degree, or even incomplete higher education experience, provided that the experience is successful, conveys a sense of familiarity and calm maturity compared to the ferment of the new matriculant. The wide variation in class marks over successive assessments was unanticipated; this is not a student characteristic, but an attribute of the teaching and assessment process. Whether it relates to student engagement with the course content, or to inability to standardise assessment instruments, is unclear. Students' matric point scores, as indicators of their performance at higher education level, are an unsurprising factor; what is remarkable is the meagre contribution that this

factor makes.

The final step in systems theory is to embed the understanding we have gained functionally within the whole. This, we suggest, rests with alerting us as staff members to the fact that students from certain types of schools may require additional assistance to progress through higher education. Since a prior degree evidently confers a number of benefits, there may be an argument for a 'pre-med' degree, as required in other parts of the world. Attention to the standard, type, and difficulty of questions is likely to smooth the irregular path of assessment. Finally, the significance of students' matric point scores, which may reflect innate academic ability and prior educational experience, cautions, in this medical school at least, against broadening admission criteria by reducing the level at which students are accepted.

The questions that arise from the present study relate to both the theory and practice of this kind of educational research. What is one to make of the wealth of studies of individual factors that show meaningful distinctions between groups of learners when categorised according to one factor alone, when, in comparison with further factors, some appear to overshadow others? Do what appear to be contradictory findings throw into question the trustworthiness of one's data? Should one be wary of applying to an institution's selection criteria, or the pedagogic practice of its staff, findings derived from a particular approach? Should policy based on such tendentious topics as 'transformation', 'disadvantage' or 'redress' await the outcome of large multifactorial studies? Certainly, this study, conducted in one faculty of one institution at one level of education, could usefully be repeated in other faculties, institutions and levels. We concede that our use of such demographic characteristics as are recorded by UKZN was strategic and that the difficulty of gathering reliable data on, for example, learners' home backgrounds is well known (Coleman: 1966; Simkins & Paterson 2005). Nonetheless, we believe that similar studies are feasible. In practical terms, repeating a longitudinal trace of assessment results to ascertain whether the pattern revealed in this study is constant, could and should be undertaken. This study specifically excluded the subsequent assessment scores of those who dropped out of the cohort. While a study of factors relating to failure rather than success would be unlikely to yield sufficient numbers for statistical analysis, qualitative investigation could garner important information. As we noted when introducing Fraser and Killian's and Ngidi's

studies, the factors that affect failure may not merely be the converse of those that contribute to success.

This study suggests avenues for further exploration and raises our awareness of influences on teaching and learning in higher education. It adds to our current understanding of the multiple interactions around that conceptual system, and that the whole is indeed greater than the mere sum of its separate parts.

Acknowledgements

Our thanks are due to the students and staff members who participated in the study. Demographic information was provided by Anil Pillay and Lennard Wood of the Division of Management Information at UKZN. Dan Wilson of EduAction provided data on KwaZulu-Natal schools. Tonya Esterhuysen and Stephan van der Linde of UKZN and Jaqui Sommerville of Pretoria University provided much advice and help on matters statistical.

References

Ball, A.F. 2006. *Multicultural Strategies for Educational and Social Change: Carriers of the Truth in the United States and South Africa*. New York & London: Teachers College Press.

Benbow, E.W. & R.F.T McMahon 2001. Mature Students? In Schwartz, Peter, Stewart Mennin & Graham Webb (eds.): *Problem-based Learning: Case Studies, Experience and Practice*. London: KoganPage.

Bloch, G. 2009. *The Toxic Mix: What's Wrong with South Africa's Schools and How to Fix it*. Cape Town: Tafelberg.

Breier, M. & A. Wildschut 2006. *Doctors in a Divided Society. The Profession and Education of Medical Practitioners in South Africa*. Cape Town: HSRC Press.

Bruner, J.S. 2006. *In Search of Pedagogy.* Volume I. London: Routledge.

Christie, Pam, Dawn Butler & Mark Potterton 2007. *Schools that Work*. Report to the Minister of Education. Department of Education, South Africa.

Chutgar, A. & A. Kanjee 2009. School Money Funding the Flaws. *HSRC Review, 7*. Available at: http://www.hsrc.ac.za/HSRC_ Review_ Article-175.phtml. (Accessed on 15 September 2010.)

Coleman, J.S. 1966. *Equality of Educational Opportunity*. Washington: U.S. Department of Health, Education, and Welfare.

Eisner, E.W. 1998. *The Enlightened Eye: Qualitative Enquiry and the Enhancement of Educational Practice*. Upper Saddle River: Prentice-Hall.

Essack, Sabiha Y., Indrani Naidoo & Glen Barnes 2010. Government Funding as Leverage for Quality Teaching and Learning: A South African Perspective. *Higher Education Management and Policy* 22,3: 1-13.

Essack, Sabiha, Y. *et al*. 2012. Quality Teaching and Learning in the Health Sciences. *South African Journal of Higher Education* 26,5: 960-972.

Ferguson, E., D. James & L. Madeley 2002. Factors Associated with Success in Medical School: Systematic Review of the Literature. *British Medical Journal 324*: 952-957.

Field, A. 2009. *Discovering Statistics Using SPSS*. 3rd Edition. London: SAGE.

Forde, F. 2007. It's all a Question of Class. *Mail & Guardian, 10 March 2007*. Available at: https://listserv.umd.edu/cgi-bin/wa?A3= ind0703&L= intedupol&P=2679602&E=1&B=------%3D_Next Part _000_001A_01C 77226.CEBE4C10&T=text%2Fhtml.

Fraser, W. & R. Killen 2005. The Perceptions of Students and Lecturers of Some Factors Affecting Academic Performance at Two South African Universities. *Perspectives in Education 23*,1: 25-40.

Frischenschlager, O., G. Haidinger & L. Mitterauer 2005. Factors Associated with Academic Success at Vienna Medical School: Prospective Survey. *Croatian Medical Journal 46*,1: 58-65

Greene, J.C., V.J. Caracelli & W.F. Graham 1989. Toward a Conceptual Framework for Mixed-Method Evaluation Designs. *Educational Evaluation and Policy Analysis* 11:255-274.

Haeck, W. *et al*. 1997. A Developmental Approach to Mathematics Testing for University Admissions and Course Placement. *Educational Studies in Mathematics 33*: 71-91

Hardin, J.W. & J.M. Hilbe 2008. Generalized Estimating Equations. *Wiley Online Library*. Available at: http://onlinelibrary.wiley.com/ doi/10.1002/ 9780471462422.eoct485/full.doi:10.1002/970471462 422.eoct485.

Henig, J.R. *et al*. 1999. *The Colour of School Reform: Race, Politics, and the Challenge of Urban Education*. Princeton: Princeton University Press.

Kohr, R.L. *et al.* 2007. The Relationship of Race, Class and Gender with Mathematics Achievement for Fifth-, Eighth-, and Eleventh-Grade Students in Pennsylvanian Schools. In Landry, B. (ed.): *Race, Gender, and Class: Theory and Methods of Analysis*. Upper Saddle River, N.J.: Pearson Prentice Hall.

Kuh, G.D. *et al.* 2006. *What Matters to Student Success: A Review of the Literature*. National Postsecondary Education Cooperative.

Kusurkar, R. *et al*. 2010. Effects of Age, Gender and Educational Background on Strength of Motivation for Medical School. *Advances in Health Sciences Education 15*,3: 303-313

Laszlo, A. & S. Krippner 1998. Systems Theories: Their Origin, Foundations, and Development. In Jordan, J.S. (ed.): *Systems Theories and a Priori Aspects of Perception.* Amsterdam: Elsevier Science.

Liang, K.Y. & S.L. Zeger 1986. Longitudinal Analysis Using Generalized Linear Models. *Biometrika* 73,1: 13-22.

Ngidi, D.P. 2007. Students' and Lecturers' Perceptions of Some Factors Influencing Students' Academic Success or Failure at a Historically Black University in South Africa. *South African Journal of Higher Education* 21,4: 717-732.

Richardson, L. & E.A. St Pierre 2005. Writing: A Method of Enquiry. In Denzin, N.K. & Y.S. Lincoln (eds.): *Sage Handbook of Qualitative Research*. 3rd Edition. Thousand Oaks: Sage.

Simkins, C. & A. Paterson 2005. *Learner Performance in South Africa Social and Economic Determinants of Success in Language and Mathematics*. Pretoria: Human Sciences Research Council.

Sommerville, T.E. 2012. *People and Pedagogy: Problem-based Learning in the MBChB Curriculum at UKZN Medical School*. Doctoral Thesis. Durban: University of KwaZulu-Natal.

Tinto, V. 1987. *Leaving College: Rethinking the Causes and Cures of Student Attrition.* Chicago: University of Chicago Press.

Tinto, Vincent 2005. Taking Student Success Seriously: Rethinking the First Year of College. Available at: http://www.purdue.edu/ foundationsof excellence/documents/FOE%20Documents/Taking%20Success%20 Seriously.pdf.

Trochim, W.M.K. 2006. General Linear Model. Available at: http://www. socialresearchmethods.net/kb/genlin.php.

Wilkinson, T.J., J.E. Wells & J.A. Bushnell 2004. Are Differences between

Graduates and Undergraduates in a Medical Course due to Age or Prior Degree? *Medical Education 38:* 1141-1146

Yeld, N. 2003. Academic Literacy and Numeracy Profiles: An Analysis of Some Results from the AARP and TELP Tests of Incoming Students (2001/2002 entry years). In Withers, J. & H. Griesel (eds.): *Into Higher Education – Perspectives on Entry Thresholds and Enrolment Systems*. Pretoria: SAUVCA-CTP Higher Education Admissions Project.

Ted Sommerville
School of Clinical Medicine
University of KwaZulu-Natal
Sommer@ukzn.ac.za

Veena S. Singaram
Clinical and Professional Practice
School of Clinical Medicine
University of KwaZulu-Natal
Singaram@ukzn.ac.za

The Habitus and Social Capital of First-Year Students: A Case Study

Subethra Pather
Rajendra Chetty

Abstract

This paper describes a first-year student's experience at a South African university of technology by exploring how his habitus and social capital influenced his social and academic integration into higher education. This student was part of a group of eight participants whose first-year experience and academic performance were investigated through a series of in-depth one-on-one and focus group interviews. In order to obtain information that captures the student's habitus and social capital and explore its influence on the way the student negotiates his interaction in the first year of study, we focused on the following themes: family life, transition to university and experiences on campus. The study provides an analysis of one student's negotiation of the academic and social systems at university and the role that habitus and social capital play in the way he experiences university life and performs academically. The paper attempts to contribute to research in this area by using a conceptual framework that foregrounds a deep understanding of pre-entry academic and non-academic factors influencing the first-year experience and academic performance, specifically of disadvantaged students.

Keywords: first year students' experiences, academic integration, academic performance, transition to university, habitus and social capital

Introduction

The widening and increased participation in South Africa's higher education

since the advent of democracy in 1994 has resulted in a diverse intake of students, many from disadvantaged backgrounds with limited educational experiences (CHE report 2013). Accordingly, students' needs and expectations have become less homogenous while university resources have remained unchanged. Research has revealed that the first year of study has been identified as a year in which the highest number of academic failure and attrition occurs (McInnis 2001; Pascarella & Terenzini 2005). This has resulted in the first-year experience becoming a focus of national and international concern among higher education institutions (e.g. CHE report, 2013).

Much of the literature pertaining to first-year experience focused on student retention, attrition, academic success, student engagement and academic performance (Tinto & Astin 1993; Bean 1990; Pascarella & Terenzini 1991; Terenzini & Reason 2005; Berger & Milem 2000). These writings contribute mainly to the understanding of students' involvement in academic and social systems at higher education institutions (Reason, 2009) and do not explicitly incorporate or emphasise the role and/or effects that students' habitus and social capital (Bourdieu 1984; 1990) play in the way they experience university life and perform academically.

In addition Wilcox, Win & Fyvie-Gauld (2005) note that many studies on first-year experience that employ Tinto's concept of social and academic integration rarely discuss the concept of integration in detail and the studies also lack an analysis of how such social and academic integration takes place. Harvey, Drew & Smith (2006) concur that although there has been a large amount of data collected on the students' first-year experience at the institutional level, relatively little has been reported with a view to explicitly exploring the students' personal experiences in their first year of study. In South Africa, there has been limited research on university students' first-year experience. For example, in the majority of studies that we reviewed, the ambit of the research focused on questions as they related to the intra-university environment i.e. academic performance, student learning, student support and student retention amongst others. After reviewing international studies like those of Dumais & Ward (2010), Lane & Taber (2012) and Gaddis (2013), we notice a shift in focus toward the role played by social class, capital and habitus on educational experiences and academic success. Hence, we suggest that the extra-university environment of the student should not be ignored especially, when investigating the first-year experience in South Africa.

Given the context in which higher education institutions in South Africa has rapidly increased its student complexity, we believe that there is a growing urgency for a critical exploration and understanding of students' first-year university experience through the voice of students. This paper thus aims to address this gap by identifying and exploring the influences of social capital and habitus of an individual student on first-year experience and academic performance. The understanding of this phenomenon is pivotal to the increase in the diversity of the higher education student body that has added complexity to the nature of the students' first-year experience. This paper makes use of Tinto's (1975; 1993) student integration model together with Bourdieu's (1984) theoretical tools: capital, habitus and field to provide a deeper understanding of first-year students entering higher education.

Given the new racial and class configurations in South Africa's higher education institutions, gaining knowledge on students' pre-entry attributes become particularly important to understanding and interpreting their first-year experience and academic success Although the intention of this article is to provide an analysis of one student's negotiation of the academic and social systems at university and the role that habitus and social capital play in the way he experiences first year at university, all eight participants' data was analysed to provide the themes in this paper. In addition it also provided an important contextual understanding of where these students are coming from and what habitus and social capital they bring with them into higher education.

Objectives

This study focused on providing answers to the following research questions:

> Who are our first-year students?
> How does the habitus and social capital of first year students influence their first-year experience?
> To what extent does habitus and social capital (that students report on) influence their social and academic interaction in their first-year of study?

Theoretical Framework of the Study

Tinto's (1975; 1993) model features three very distinctive stages in the process of student departure. In the first stage Tinto states that students enter university with varying background characteristics (e.g. family background; parental educational level); individual attributes (e.g. age, sex, race, ability) and prior academic experience (e.g. schooling experience, grades). He regards the first stage of his model as a period of separation where the students' pre-entry characteristics have a direct influence on: drop out; initial commitment to the institution; and initial goal of persistence. The second stage in his model is the identifiable integration process. In this stage the students' level of integration into the academic and social systems of higher education will be influenced by their initial level of commitment to the institution and the commitment to the goal of graduation at the institution. The third and final stage of Tinto's model of integration entails structural and normative integration. Structural integration refers to the explicit standards required by the university (duties, responsibilities, procedures) while normative integration, in contrast, refers to norms and expectations of the students' identification of normative structures of the academic system that are not officially stated (Tinto 1975).

Tinto further explains that students' level of academic and social integration into their university communities is determined by their level of commitment to their own goals and those of the institution which in turn influence their decision to remain or leave the institution. Tinto's model asserts that students who engage in formal and informal academic and social integration are less likely to drop out. In addition, the integrative and positive experiences reformulate the students' goals and commitment thus reinforcing commitment (Harvey, Drew & Smith, 2006).The process of social and academic integration refers to the extent of congruency (matching) between the individual student and the social and academic system of the university. This implies that the greater the level of social integration (e.g. student interaction with his or her social environment, including peers, faculty and administrative staff), the greater the level of subsequent commitment to the university.

However, Tinto's theory focused heavily on traditional, White young American first-year students in private residential institutions. Consequently this has led to his model being criticised for the following: being too

homogeneous (Brunsden *et al.* 2000; Attinasi 1989; Pascarella & Terenzini 1983); its inability to explain racial minority student retention (Stage & Anaya 1996; Tierney 1992; Rendón, Jalomo & Nora 2000); studying the attrition of older students (Bean & Metzner 1985) and neglecting the 'widened community' of students that was a result of increased access (Rhodes & Nevill 2004).

A complementary approach to Tinto's model draws on Bourdieu's (1984, 1990) theoretical tools i.e. cultural capital, field and habitus, that he termed his three 'thinking tools' (Bourdieu & Wacquant 1989: 50). Bourdieu uses these three concepts to explain how the environment in which people are raised and their conditions of cultural and material existence, shape their attitudes, their means of interpreting the world and their capacity to engage with academic discourse (Bourdieu & Passeron 1977). Bourdieu's theoretical tools are thus predominantly geared to understanding the social world. This according to Maton (2008) is not simply the result of one's habitus, but rather of relations between one's habitus and one's current circumstances. For Bourdieu, habitus, capital and field are unavoidably interrelated, both conceptually and empirically (Bourdieu & Wacquant 1992: 96-97). To talk of habitus without field and to claim to analyse 'habitus' without analysing 'field' are thus extracting habitus from the very context which gives it meaning and in which it operates (Maton 2008).

In examining Bourdieu's conceptual tools, Warde (2004) notes, that the concept of field although central and essential to the theoretical foundation of the analysis, does not play a substantive role as habitus and cultural capital, that accomplishes all the interpretive work. Bourdieu describes field as a socially structured space in which individuals play out their engagements with each other. Warde (2004) adds to this description by conceptualising a field as a relatively autonomous structured space, which has been socially instituted, thus having a definable, but contingent history of development. In most of Bourdieu's (1984) works he frequently employs the analogy of a game when conveying the sense of activity/ies within a field.

Bourdieu defines capital as any resource that holds symbolic value within a field and therefore acts as a currency that actors take with them to the field. He adds that in order to 'play the game' in the field, individuals need to have some existing stock i.e. capital that is relevant to the new field (1984: 446). He identifies the following three types of capital: economic, cultural and social capital. Economic capital is regarded as 'immediately and

directly convertible into money' (1986:245); cultural capital refers mainly to the products of education, whether these are visible in individuals (accent, vocabulary, behaviour, etc.), connected to objects like qualifications, or connected to institutions, like schools and universities (Bourdieu 1986; James 2011); and social capital as an individual's social connections or networks of lasting relations that have been established and continue to expand (Bourdieu 1986; Grenfell & James 1998). The concept of the field is closely linked to that of capital - capital does not exist and function, except in relation to a field (Bourdieu & Wacquant 1992: 101). Therefore, within a field, individuals hold unequal positions and experience unequal trajectories based upon the volume and composition of their portfolio of capital (Wacquant 1998).

Habitus appears to be a difficult concept to grasp, yet it is central to Bourdieu's' distinctive sociological approach, 'field' theory, and philosophy of practice. It is also crucial to his originality and contribution to the field of social science (Maton 2008). Habitus can be described as a set of values, practices and norms which people assimilate as part of who they are and how they operate. It represents how individuals make use of their past and present experiences to address a current situation. Bourdieu explains habitus as: 'systems of lasting, transposable dispositions which, integrating past experiences, functions at every moment as a matrix of perceptions, appreciations, and actions' (1971: 83). Formally, he defines habitus as a property of actors (whether individuals, groups or institutions) that comprises a 'structured and structuring structure' (Bourdieu 1994: 170). It is 'structured' by one's past and present circumstances, such as family upbringing and educational experiences. One's habitus helps to shape one's present and future practices. It is a 'structure' in that it is systematically ordered rather than random or haphazard. This 'structure' comprises a system of dispositions which generate perceptions, appreciations and practices (Bourdieu 1990: 53).

Bourdieu's conceptual tools were used to explore differential higher education experiences by gender, race and class of the varying student population, i.e.: minority students (Ovink & Veazey 2011); black students (Jones 2001); first-generation/non-traditional students (Watson *et al*. 2009); low-income/working-class students (Reay, Crozier & Clayton, 2010) and both genders (Dumais 2002). Many studies focused specifically on Bourdieu's concept of habitus to explain, interpret and understand habitus in

varying educational settings, i.e. institutional habitus; individual and collective student habitus; and habitus of academic staff (Kloot 2009; Jawitz, 2009; Reay 2004). Cultural capital was also a tool that was often highlighted to explore its influence on student behaviour and experiences (Ball *et al.* 2002).

Although Bourdieu's concepts have been applied and reviewed in many empirical studies (Reay *et al.* 2007), there have also been several researchers that criticised his concepts (Kingston 2001; Sullivan 2002; Reay 2004). Much of the criticism points to the vagueness of habitus and cultural capital. Kingston (2001) maintains that a lack of a more explicit description of, for example, Bourdieu's cultural capital concept has resulted in a wide variety of variables being used to study this concept. To add to the vagueness, Bourdieu in his own work identifies the following as elements of cultural capital: educational credentials, linguistic capabilities, and school systems. Cultural capital is inculcated in high-class homes and thus enables high-class students to gain higher educational credentials than other students (Bourdieu 1973). Sullivan (2002) criticised Bourdieu for not being precise enough about exactly which of the resources associated with high-class homes contribute to cultural capital and how these resources are converted into educational credentials. However, Bourdieu admits that his cultural capital concept is not as precise in definition as economic capital and points out that cultural capital must be fluid to be reflective of the society which is being studied. Sullivan (2002) acknowledges that the concept of cultural capital, although not constructed concisely by Bourdieu, is substantive enough to be potentially useful to empirical researchers.

Methodology

This study is designed within the qualitative research paradigm and uses the case study approach as the main research strategy. According to Harrison (2002), a case study is more aptly described as a strategy than a method as it sets out to address the understanding of a phenomenon within its operating context. This study can be classified as an instrumental single-case design (Stake 1995). A defining characteristic of this case study was its intensive investigation of a single unit (Yin 2008) and that its primary concern was with particularistic, descriptive and heuristic analysis of a single unit within a bounded system (Merriam 2009). Thus this study was principally focused on students' first-year experience at a higher education institution as its

situation. It was bounded by a particular group of students i.e. first- year teacher education students and the bounded time period was for one academic year i.e. only their first year of study.

Qualitative evidence was collected from eight first-year B Ed Foundation Phase[1] (FP) students using semi-structured one-on-one interviews at the commencement of the academic year and towards the end of the academic year a focus group interview was conducted with the same participants. The one-on-one interviews and the focus group interview were recorded and transcribed. The participants' were selected purposefully as such a technique is strategic and entails an attempt to establish a good correspondence between the research focus and the sampling (Bryman 2008). The participants selected for the study reflected the gender and racial balance of the B Ed FP first-year cohort of 2012 of the case study (the intake of male students in the Foundation Phase programme is extremely low). The purpose was to ensure that the conclusions adequately represent the range of variation. In order to obtain information that captures the student's habitus, capital and field and explore its influence on the way the student negotiates his or her interactions in the first year of study, we opted for focusing on themes when interviewing the participants. Students were asked to discuss the following: their family life; schooling experience; their expectations of university; friendships and their experiences on campus.

The eight interviews provided insight into how certain pre-entry factors pertaining to them influenced their first-year university experience. Some of the phenomena influenced by the student's habitus and social capital were emerging as strong themes. Given the nature of this type of construct it needed further investigation and thus further investigation was conducted via a single in-depth case study with one of the participants and described in this paper. According to Nock, Michel & Photos, data collected from one individual in a case study is detailed, qualitative, anecdotal and has a strong focus on the unique aspects of the case, thus allowing the researcher to note complexities arising from the distinctive history and influences specific to that individual (2007: 338) We purposefully selected Thabo's (pseudonym) story for this paper as he was one of the two male students in the FP programme that was eager to share his story, expectations and experiences with us.

[1] Teacher education students specialised to teach Grade R to Grade 3.

The analysis of data relied mainly on the thematic approach. According to Braun & Clarke, thematic analysis is a qualitative analytic method for identifying, analysing and reporting patterns or themes within data (2006: 72). Thus for this study to be fully engaged with and immersed in the corpus of data, thematic analysis provided the most effective means to organise and describe how participants made meaning of their first-year experience in rich detail. For example the student's perceptions, attitudes, understanding, knowledge, values, feelings and experiences were analysed in an attempt to approximate their reality. The theoretical lens used to analyse and interpret the data was guided by Bourdieu's conceptual tools of habitus, field and capital and Tinto's student integration model. The theoretical lens brought about a deeper understanding of the factors influencing the student's first-year experience.

Discussion

In order to discuss how social capital and habitus influence the participant's first-year experience we focused on the participant's knowledge about university life. Having a demonstrable knowledge of the participant's university experience together with a clear understanding of his social capital and habitus is significantly associated with his ability to academically and socially integrate into his new environment. In this study social capital comprises social connections that shape the student's expectations and behaviour and also assists the student in gaining information on university life. Habitus in this study refers to how a student uses his/her past and present experiences to attend to the current situation. These experiences influence a student's expectations of university and also his perceptions of reality. In this regard if a student's habitus is closely matched with the institutional habitus, a student would be more likely to successfully integrate academically and socially into his/her new environment which consequently will have a positive response to his/her first-year university experience and academic performance.

Who is Thabo?

Thabo is a 24 year old male African student from the Eastern Cape. He was raised by his mother who was a domestic worker. His father died when he

was very young of whom has no recollection. His mother took care of him and his older sister. In 1998 when Thabo was eleven years old his mother died of HIV/Aids and Thabo and his sister went to live with their aunts. As young children they did not have a stable place to call home and moved around between their three aunts and grandmother in the Eastern Cape:

> *Our aunts took over took care of us. We had three aunts, my sister was with a much older one, my big aunt and me I was with the little one, we were brought up and then so I came to Cape Town and I came back to Eastern Cape 2008 and then I had to move from my aunts place to my er to my er grandmother's place. So both of us moved back, because we were older, Oh ja, so ja we were brought, because they wanted us to be old to be responsible and all of that blah, blah. So ja I also had to find a way to work to earn money*

Thabo attended a small public rural school and regards his school experience as fun. He had many friends and felt school was not stressful as he had the freedom to do as he pleased. He saw school as a taken-for-granted experience and not as a stepping stone to university. Thabo and his friends never spoke about going to university. Every day after school Thabo helped out at home by taking care of all his younger cousins and assisted them with their homework:

When Thabo turned 18 he felt obliged to help out financially and moved to Cape Town to look for a job:

> *Uhm I first came here in Cape Town in 2007, I passed my matric in 2006, in 2007 I came down here and then I worked as a truck assistant. I started working there and then I applied to do a computer course; I wanted to do data-capturing. So while I was also doing that, I was also working, so I was doing part-time there and then uhm I did get a job in data-capturing just before I got retrenched.*

Thabo had no intention of going to university as his first priority was to financially support his family:

> *I'm supporting my sister only when it comes to eating and clothing. I send her money every month. R700 sometimes, sometimes R600,*

> *sometimes R300, depending on the money that I have and but a ja the family my aunt is working, my aunt's husband was working, but is not working any more so I would say at home I'm more of a breadwinner, that's why I don't have enough money to pay for my fees, I would've loved to do that.*

For Thabo university was not an automatic or taken-for-granted decision. It was only after he was retrenched that he decided to study. His intention to go to university was based on getting a secure job with a good salary so that he could provide a better life for his daughter and family. Thabo's young daughter lives in the Eastern Cape and he feels he needs to provide for her and save for her education. Thabo struggled with the decision to enrol as a full-time student at university. He felt guilty about going to study as he sensed there was an unspoken expectation from his family that he take responsibility for his family's financial circumstances:

> *Uhm because I grew up there, I think there is that expectation, even though they are not saying that to me, I think there are those expectations. And I try my best to move away from those thoughts, because they gonna disturb me, in terms of my studies, because I would want to er impress them financially to give them money every month. I try my best to look at my sister and my sister's child and my child as well my aunts and so and so……*

Thabo thus opted to work part-time as a security guard so that he could still send some money home to his family. Thabo is a first generation university student and his intention is to make his family proud of his achievement and also to be an inspiration to other young children from his home town or who experience similar circumstances:

> *I would be taking my family and putting it into the map as well. People will know that there's a person coming from that background, he has made it that far, so that even for those ones coming up to see whatever challenges they are facing, someone made it and they can too.*

Transition to University

Thabo has limited resources that restricted his entrance to university which were mainly his social and economic capital and his habitus. Thabo's learning about university was through his interaction with people outside his home, community and school and using social media. His work experience had exposed him to many possibilities, especially with regard to tertiary education. His social connections/network were limited and thus his choice of institution and course did not receive great consideration. In fact it was Thabo's aunt who had suggested he take up teaching as a profession:

> *Uhm this teaching thing, my aunt was the one who said I should go for it and do teaching, not that I didn't think of it. I did think of it, but she saw the hands I was like the way I was interacting with the children with her children as well…. she wanted some help with their homework, my aunt is 56 years, she is much older and can't help them with homework. So she saw the treatment I was giving the kids and all of that….*

For Thabo, teaching was not his first choice but it is something that can assist him to achieve his dream:

> *So I would say that as I set my dreams to be a psychologist and I'm not giving up on that.*

However, with regard to Thabo's perception of family support, he had mixed emotions. He was very happy that he had the emotional support from his family and that his aunts encouraged him to further his studies even though they did not have the money to pay for his tertiary education. He also felt disappointed that he could not get any financial support from them:

> *If I had a family support ja, maybe financially or whatever…. I would have done better in maybe some other stuff, but that's not an excuse… er but I do have a sister, who's supportive, my aunt's sister, my aunts child, who I say is a sister who played a part in saying that this is good for me. She motivates me and says, so keep on doing it, she asks me to keep her updated, she wants to know what's been*

> *happening at the campus and stuff like that so I call her I took her as family.*

Thabo struggles financially and tries very hard to balance his academic work and provide for himself and his family. He applied for a student loan and hopes he will be successful as he finds it very difficult to be a full-time student and work night shift as a security guard. He says it does not really affect his concentration as he occasionally tries to get a quick nap at work:

> *Eeeh Because I have these responsibilities at home, I asked the NSFSAS to help me and er the financial Aid* so *ja I got help from them, so ja they are the ones paying my studies. It's more of a student loan, because we have to pay back after you done and you start working yes. So ja I'm working and studying again, it's been quite a ride, not an easy one, it's quite daunting at times when you sleep on the weekends, you passed out. ja because it's been like yor the week, nearly to end*

University Experiences

This section is discussed under two themes: social integration and academic integration. It is evident from the data that much of Thabo's experiences at university were influenced by his habitus and social capital which had an impact on his level of social and academic integration in his first year of study

Social Integration

Thabo's social integration was influenced by the following challenges: financial; part-time job; culture; being an older student; and motivation to succeed.

He found it difficult to integrate with students from other race groups as he attended a school with African students only. However, he remembers that in his university class they did discuss interacting with students of other races and realised that regardless of race, they were all the same - all studying to become teachers, but they still found socialising difficult:

> *Sometimes when you are in a serious conversation with a diverse group of students, you would find that you feel like an outsider. Honestly speaking I do feel like an outsider at times that's my honest opinion. You know for example, you all are talking then you are left out of the conversation then you feel alone then you would like ask something just to get in the conversation again so it's kind of like ja there's like that thing…. he's Black or maybe, maybe its because of I don't know I wouldn't say it stupid it is, the way to go about it, but ja it's difficult...*

Although Thabo feels a little uncomfortable in having a conversation with peers from other racial groups, he is very eager to learn more about them in his class. He feels doing group work is one way of learning about other race groups, although he feels the tension from his African peers:

> *When it comes to group work I think students would like to be in a comfort zone. So they want to be with people who understand them, that's what I noticed. Eh for instance we were doing a presentation about a Religion. I found that I wanted to be in another group. I wanted to be more exposed into other peoples like culture and the way they think and get challenged in terms of my English and all of that but then my friends wanted me to go with them. So sometimes it's not right to eh separate yourself to exclude ourself from that because at the end of the day we are all students we came here to learn.*

Most of Thabo's social connections have been formed to assist him with his studies. He has a few peers from his class whom he regards as friends, but most of their conversations are related to their academic work.

> *Well I wouldn't say they are my friends. We are on Facebook all together uhm classmates most of them we help each other and if we need to find out anything about work we can just ask.*

Thabo feels that being in a programme together helps with social integration as they work as a team and assist each other, but they do not socialise off campus. Thabo feels that there is very little time for socialising

as he has to juggle his full-time studies, part-time job and studying for tests and completing assignments.

Academic Integration

Thabo's level of academic integration is influenced by his culture and upbringing. His interaction with his lecturers is very limited. He does not make contact with his lecturers, unless they request to see him. He also regards them as elders and in his culture you do not have much contact with your elders and they should be respected. This affects his interaction with his lecturers as he will not argue with or challenge them in anyway.

> *I would love to get some kind of a… how would I put this, I would love to be more involved with them, meaning one of the difficulties is that maybe I faced during the year, maybe they could've helped me maybe, but they are elders…but I tend to be more open with my friends and people from outside of the campus to give me their version of things.*

Thabo's perception of his lecturers being 'elders' has restricted him from obtaining academic support from them, however he does have tensions with this and wishes it would change:

> *I haven't asked for support but ja I see the lecturers and I always treat the lecturer as an older person who is more experienced. Because I'm younger than them so I give them that respect, because our culture is more about respect. I find it difficult to approach them. Eh I wouldn't say it's the best way to handle this, I don't know about that one, but I know when it comes to comparing it and putting culture into it and where it comes from maybe. A lecturer is a lecturer who is older than you if you don't get a chance to ask this in a class and stuff like that; you'll get the chance maybe next time when he comes into the class, but not out of class...*

Thabo finds the academic work quite challenging as he is an older student and had completed Grade 12 in 2006, six years before his first year at

university. Nonetheless, he is highly motived to work hard and successfully complete his degree:

> *The workload that is daunting that is killing us that we push ourselves so hard that we want to do this we want to get this done. I would say that it is more for say that eh not getting it done but knowing that the reward afterwards that is what we looking for actually. So I wouldn't say like completely I'm enjoying myself no that is not, we came here to work, we came here to do this we want this degree. I want it so bad so I do whatever it takes sometimes to make sure that I get the work done.*

Another challenge for Thabo is the language barrier. Although he is passing all his courses, he struggles with the English language. He is not doing well in academic literacy and he is afraid he is going to fail that course. He notes that lecturers just assume that all students know how to write an essay or do referencing and not much support is given in class:

> *There are times when you write an assignment, you write your assignment and you feel what you are writing you love it, you keep reading it because you like it so much but when the results come and then it's a different story! We need to get feedback in class about the work.*

Despite Thabo's many challenges he feels positive, motivated and self-driven. He feels his tough upbringing with limited resources i.e. money, food and clothes has made him strong and ready to deal with challenging situations.

> *Luckily for me, I'm coming from a family I was not so like uhm how would I put this eh not so good upbringing uhm suffering and knowing how to save money and economically and ja financial stuff so to be responsible more so now when it comes to here comparing it ja I would say I am much more matured that's why these challenges I'm facing at the campus I feel that I am overcoming them bit by bit if there are no like big challenges but I am mentally strong I have to be,*

> *I have to be mentally strong because of my upbringing although not so nice it has made me strong.*

It is evident that Thabo's difficult and poor upbringing, especially with regard to issues of family dynamics, rural challenges and disadvantage, has been an important factor in building in him strength to persevere in the face of adversity during the first year at university. Bourdieu emphasised that first-generation students' commitment to succeed and reach their educational goal placed them in an advantageous position equal to the students from the upper sectors of society who enjoy increased levels of cultural capital (1997: 495). Cleyle & Philpott's (2012) study concur with Bourdieu (1997) and add that factors such as family circumstances, past experiences and economic forces were decisive for students to be committed to their educational goals and university studies.

Conclusion

Thabo's narrative on his habitus and social capital enables an understanding of the complexity that he encountered while trying to negotiate his first-year university experience. Thabo found himself experiencing tensions and having to re-invent himself in order to succeed at university. His narrative reinforces the imperative of educational research not to ignore the social capital of students, the everyday manifestations of racial inequalities and the notion of social class and their connection to broader structural systems. While this research project noted and exposed the experiences of an economically disadvantaged student from a rural area, the next and more important step should be a commitment to a particular paradigm of empowerment of underprivileged first-year students. Thabo's narrative on his first-year experience ensured that his voice is heard, a naming of his own reality, where the voice of the marginalised serves as a means toward emancipation. Thabo spoke with strength and confidence of his skills, his knowledge of hard work and role as breadwinner, the fact that he had different life experiences of first-year students of other race groups or black students from privileged contexts, and that he knows about struggle and he attributes his strength to commit himself to university was borne from his struggle. However, we also note in his narrative, that when he discursively wandered beyond the borders of his

inner strength, stigma and fear permeated his story. He described himself as academically handicapped, by opportunities denied, ill-equipped to attend university, embarrassed by limited vocabulary and discomfort in engaging with lecturers. Social capital of economically disadvantaged first-year students should not be ignored as it reinforces important factors of profoundly classed experiences that have an effect on student drop-out. Factors include details of their family, which schools students attended, the extent and type of extracurricular activities they have engaged in, where they live and the nature of their housing, the nature by which they are prepared for university admission and benchmarking testing, the nature of school based counselling and their health. In this regard as Paulsen & St John (2002) warn that when studying diverse student groups it is imperative that the student's situated circumstances be taken into account. Thabo's situated context helped to explain how his habitus shaped his first-year experience and academic performance. His determination, motivation and self-resilience, brought about by his life circumstances, helped to understand why he chose to behave in a particular manner while trying to navigate through his first year at university.

Acknowledgments

DHET funded project, Education and Emancipation: A critical, intervention-oriented investigation of obstacles and opportunities within the higher-education-and-training sector in South Africa, Centre for Critical Research on Race and Identity (CCRRI) at University of KwaZulu Natal (UKZN).

References

Astin, A.W. 1993. *What Matters in College? Four Critical Years Revisited.* San Francisco: Jossey-Bass.

Attinasi, L. 1989. Getting in: Mexican Americans' Perceptions of University Attendance and the Implications for Freshman Year Persistence. *The Journal of Higher Education* 60: 247–277.

Ball, S.J. *et al*. 2002. 'Classification' and 'Judgement': Social Class and the 'Cognitive Structures' of Choice of Higher Education. *British Journal of Sociology of Education 23*, 1: 51-72

Bean, J.P. 1990. Why Students Leave: Insights from Research. In Hossler, D. & J.P. Bean (eds.): *The Strategic Management of College Enrolments*. San Francisco: Jossey-Bass.

Bean, J.P. & B.S. Metzner 1985. A Conceptual Model of Non-Traditional Undergraduate Student Attrition. *Review of Educational Research.*

Berger, J.B. & J.F. Milem 2000. Organizational Behaviour in Higher Education and Student Outcomes. In Smart, J.C. (ed.): *Higher Education: Handbook of Theory and Research.* Volume XV. New York: Agathon.

Bourdieu, P. 1971. Systems of Education and Systems of Thought. In Young, M.F.D. (ed.): *Knowledge and Control: New Directions in the Sociology of Education.* London: Collier-Macmillan.

Bourdieu, P. 1973. Cultural Reproduction and Social Reproduction. In Brown, R. (ed.): *Knowledge, Education and Cultural Change: Papers in the Sociology of Education.* London, Tavistock, UK: Tavistock Publications.

Bourdieu, P. 1984. *Distinction: A Social Critique of the Judgement of Taste.* Nice, R. (trans.). Cambridge, MA: Harvard University Press.

Bourdieu, P. 1986. The Forms of Capital. In Richardson, J.E. (ed.): *Handbook of Theory and Research for the Sociology of Education.* Wesport, C.T: Greenwood Press.

Bourdieu, P. 1990. *The Logic of Practice.* Stanford, CA: Stanford University Press.

Bourdieu, P. 1994. *Practical Reason: On the Theory of Action.* Cambridge, UK: Polity Press.

Bourdieu, P. & J.C. Passeron 1977. *Reproduction in Education, Society and Culture.* London: Sage Publications.

Bourdieu, P. & L.J.D. Wacquant 1989. Towards a Reflexive Sociology: A Workshop with Pierre Bourdieu. *Sociological Theory* 7, 1: 26-63.

Bourdieu, P. & L.J.D Wacquant 1992. *An Invitation to Reflexive Sociology.* Cambridge: Polity Press.

Braun, V. & V. Clarke 2006. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology* 3: 77-101.

Brunsden, V. *et al.* 2000. Why do HE Students Drop Out? A Test of Tinto's Model. *Journal of Further and Higher Education* 24, 3: 301-310

Bryman, A. 2008. *Social Research Methods.* 3rd Edition. Oxford: Oxford University Press.

CHE (Council on Higher Education) 2013. *A Proposal for Undergraduate Curriculum Reform in South Africa: The Case for a Flexible Curriculum Structure. Report of the Task Team on Undergraduate Curriculum Structure.* Pretoria: Council on Higher Education.

Cleyle, S. & D. Philpott 2012. Developing an Effective First Year Experience for Students with Academic Challenges: A Proposal for a Pilot Program. Research Report. Office of the Vice-President Academic. St. John's, NL: MUN.

Dumais, S.A. 2002. Cultural Capital, Gender, and School Success: The Role of Habitus. *Sociology of Education* 75: 44-68.

Dumais, S.A. & A. Ward 2010. Cultural Capital and First-Generation College Success. *Poetics* 38, 3: 245–265.

Gaddis, S.M. 2013. The Influence of Habitus in the Relationship between Cultural Capital and Academic Success. *Social Science Research* 42, 1: 1–13.

Gaddis, M.S. 2013. The Influence of Habitus in the Relationship between Cultural Capital and Academic Achievement. *Social Science Research* 42, 1: 1-13.

Grenfell, M. & D. James (eds.) 1998. *Bourdieu and Education: Acts of Practical Theory*. London: Falmer.

Harrison, A. 2002. Case Study Research. In Partington, D. (ed.): *Essential Skills for Management Research.* London: Sage Publications.

Harvey, Lee, Sue Drew & Maria Smith 2006. The First Year Experience: A Literature Review for the Higher Education Academy. Heslingon, UK: The Higher Education Academy. Available at: http://www.quality researchinternational.com/ Harvey%20papers/ Harvey%20and%20Drew %202006.pdf. (Accessed on 5 December 2011.)

James, D. 2011. Beginning with Bourdieu in Educational Research, British Educational Research Association On-Line Resource. Available at: http:// www.bera.ac.uk/resources/beginning-bourdieu-educational-research. (Accessed on 2 June 2012.)

Jawitz, J. 2009. Learning in the Academic Workplace: The Harmonization of the Collective and the Individual Habitus. *Studies in Higher Education* 34, 6: 601–614.

Jones, L. 2001. *Retaining African Americans in Higher Education: Challenging Paradigms for Retaining Students, Faculty, & Administrators.* Sterling, Va.: Stylus Publishing.

Kingston, P. 2001. The Unfulfilled Promise of Cultural Capital Theory. *Sociology of Education* 74, Special Issue: 88-99.

Kloot, B. 2009. Exploring the Value of Bourdieu's Framework in the Context of Institutional Change. *Studies in Higher Education* 34, 4: 469–481.

Lane, L. & N. Taber 2012. Experiences with Cultural Capital: Educational Life Stories of First-Generation Post-Secondary Students. *Canadian Journal for the Study of Adult Education* 24, 2: 1-15.

Maton, K. 2008. Habitus. In Grenfell, M. (ed.): *Pierre Bourdieu: Key Concepts*. London: Acumen 49-66.

McInnis, C. 2001. Researching the First Year Experience: Where to from Here? *Higher Education Research and Development* 20, 2: 105-114.

Merriam, S.B. 2009. *Qualitative Research: A Guide to Design and Implementation.* San Francisco: Jossey-Bass Publishers.

Nock, M.K., B.D. Michel & V.I. Photos 2007. Single-Case Research Designs. In McKay, D. (ed.): *Handbook of Research Methods in Abnormal and Clinical Psychology*. Thousand Oaks, CA: Sage Publications.

Ovink, S & B. Veazey 2011. More than 'Getting us Through:' A Case Study in Cultural Capital Enrichment of Underrepresented Minority Undergraduates. *Research in Higher Education* 52, 4: 370-394.

Pascarella, E.T. & P.T. Terenzini 1983. Predicting Voluntary Freshman Year Persistence/Withdrawal Behavior in a Residential University: A Path Analytic Validation of Tinto's Model. *Journal of Educational Psychology* 75, 2: 215–226

Pascarella, E.T. & P.T. Terenzini 1991. *How College Affects Students: Findings and Insights from Twenty Years of Research*. San Francisco: Jossey-Bass.

Pascarella, E.T. & P.T. Terenzini 2005. *How College Affects Students: A Third Decade of Research.* San Francisco, CA: Jossey-Bass.

Paulsen, B.M. & P.E. St. John 2002. Social Class and College Costs: Examining the Financial Nexus between College Choice and Persistence. *The Journal of Higher Education* 73, 2: 189-236.

Reason, R.D. 2009. An Examination of Persistence Research through the Lens of a Comprehensive Conceptual Framework. *Journal of College Student Development* 50, 6: 659-682

Reay, D. 2004. It's all becoming a Habitus: Beyond the Habitual Use of Habitus. *British Journal of Sociology of Education* 25, 4:431-44.

Reay, D. *et al.* 2007. A Darker Shade of Pale: Whiteness, the Middle Classes and Multi-ethnic Inner City Schooling. *Sociology* 41, 6: 1041–60.

Reay, D., G. Crozier & J. Clayton 2010. 'Fitting in' or 'Standing out': Working-Class Students in UK Higher Education. *British Educational*

Research Journal 36, 1: 107-124

Rendón, L.I,, R.E. Jalomo & A. Nora 2000. Theoretical Considerations in the Study of Minority Retention. In Braxton, J.M. (ed.): *Reworking the Student Departure Puzzle: New Theory and Research on College Student Retention.* Nashville, TN: Vanderbilt University Press.

Rhodes, C.P. & A. Nevill 2004. Academic and Social Integration in Higher Education: A Survey of Satisfaction and Dissatisfaction within a First Year Education Studies Cohort at a New University. *Journal of Further and Higher Education* 28, 2: 179-193

Stage, F. & G. Anya 1996. A Transformational View of College Student Research. In Stage, F.K. *et al.* (eds.): *College Students: The Evolving Nature of Research.* Boston: Pearson Custom Publishing.

Stake, R.E. 1995. *The Art of Case Study Research*. Thousand Oaks, CA: Sage Publications.

Sullivan, A. 2002. Bourdieu and Education: How Useful is Bourdieu's Theory for Researchers? *The Netherlands' Journal of Social Sciences* 38, 2: 144-166

Terenzini, P.T. & R.D. Reason 2005. Parsing the First Year of College: Rethinking the Effects of College on Students. Paper presented at the meeting of the Association for the Study of Higher Education, 19 November, Philadelphia, PA. Available at: http://www.ed.psu.edu/educ/parsing-project/.pdf%20documents/ASHE05ptt.pdf. (Accessed on 12 April 2012.)

Tierney, W.G. 1992. An Anthropological Analysis of Student Participation in College. *Journal of Higher Education* 63, 6: 603–618.

Tinto, V. 1975. Dropout from Higher Education: A Theoretical Synthesis of Recent Research. *Review of Educational Research* 451: 89-125.

Tinto, V. 1993. *Leaving College: Rethinking the Causes and Cures of Student Attrition*. 2nd Edition. Chicago: University of Chicago Press.

Wacquant, L. 1998. Pierre Bourdieu. In Stones, R. (ed.): *Key Sociological Thinkers*. Basingstoke: Palgrave.

Warde, A. 2004. *Practice and Field: Revising Bourdieusian Concepts. Centre for Research on Innovation and Competition (CRIC) Discussion Paper No. 65*. Manchester, UK: The University of Manchester.

Watson, J. *et al.* 2009. Strange New World: Applying a Bourdieusian Lens to Understanding Early Student Experiences in Higher Education. *British Journal of Sociology of Education* 30, 6: 665-681.

Wilcox, P., S. Winn & M. Fyvie-Gauld 2005. 'It was nothing to do with the University; It was just the People': The Role of Social Support in the First-Year Experience of Higher Education. *Studies in Higher Education* 30, 6: 707-722

Yin, R.K. 2008. *Case Study Research*. 4th Edition. Beverly Hills: Sage Publications.

Subethra Pather
Cape Peninsula University of Technology
Faculty of Education
pathersu@cput.ac.za

Rajendra Chetty
Cape Peninsula University of Technology
Faculty of Education
chettyr@cput.ac.za

‘You cannot talk about us without us’: A Voice from Student Dropout

Duduzile Mzindle

Abstract

Student dropout from higher education continues to bedevil the success of the South African higher education system despite its gains made in transforming this important sector from the ills of apartheid. The common discourses on student dropout in South Africa relates to the socio-economic and the academic under-preparedness of students accessing higher education. A continued focus on these dominant discourses may lead to a state of stagnation as have been seen in the decade long tracking of the efficiency of the higher education system in terms of student throughput. Hence a deeper understanding of the issues is needed.

In this paper I argue that there are confounding factors and breaking point factors associated with student dropout, and that we need to pay more attention to the confounding factors to understand their implications for students and institutions. Through a tracer study of students who dropped out, I present students’ account of their reasons for their drop out of university with a view to showing how these factors could be substantial factors beyond the finance and academic performance factors that are commonly shown to affect student throughput.

Keywords: student dropout, student isolation, stereotyping, academic performance, institutional conflicts

Introduction

The issue of student dropout in higher education is varied and complex, and forms part of the on-going engagement relating to student access, throughput,

retention and attrition. The complexity associated with student dropout can be seen through the on-going attempts across the globe to understand and address this concern (Tinto 2012; Abu-Oda 2015; Ahmet 2000; Neal 2009; Kronick & Hargis 1998), but with little success. Several complex models have been developed through research and insight, (for example, Tinto Student Integration Model) showing various dimensions to student dropout, and further confirming the complexity. This issue has gained prominence within the South African higher education system in the last decade, largely in response to higher education transformation reviews. The alarming rate (Ramrathan 2013: 210) at which students' dropout from university is a cause for concern, especially as it has the potential to reverse the transformational gains of opening access to previously denied population groups. Attempts have been made to prevent student dropout in South African higher education institutions (HEIs). These interventions include student-centered learning, identifying students at risk, providing academic support to students and defining graduate attributes in teaching and learning, to try and avert the situation; but the problem still persists. The persistent low throughput rate in HEIs (Ramrathan 2013:201) still warrants further investigation. This paper, then, argues for a refocus of our gaze into the issues related to student dropout. I argue that, through the lens of students, deeper issues - such as stereotyping; traditional belief systems and institutional conflicts if not attended to - can lead to students making a decision to drop out of the university. Similar vantage points of entry into student dropout have been previously studied. For example, Dreyer (2010) explored student dropout from distance education programmes. He found that the non-completion of students was similar to those of distance higher education institutions world-wide, and that time was a principal factor.

In a study by Munsaka (2009), on causes of dropout at the level of high school education, the results revealed that dropping out of school is a complex phenomenon that is influenced by numerous factors including the socio-economic status of parents, family composition and the level of parents' education. Furthermore, he argues that we need to understand the learners in context, suggesting that contextual issues rather than academic issues are the contributing factors to student dropout. In this paper I attempt to present an analysis of students' understanding of student dropout with a view to illuminating the contextual issues that they face as they engage in higher education studies. A purposive sampling of Bachelor of Education

students registered at a higher education institution in KwaZulu-Natal formed the sample group through which the students' voices on student dropout were captured.

Literature

A number of studies have been conducted on the issue of student retention and dropout. Students who are at risk encounter a number of challenges ranging from personal, transport, poor academic background, curriculum demands; negative student experiences, study skills management, entry requirements, and labeling, to mention a few (Munsaka 2009; Ogude Kilfoil & Du Plessis 2012; Ramrathan 2013; Tinto 1975; Tinto 1993).Tinto (2012) cited the importance of identifying students who are likely to drop out. He argues that if institutions are unable to retain students, this represents a failure of those institutions to serve society and the personal development of individuals. A study (Bracey 2006) on dropout rates revealed that fifty percent of students in minority groups never walk across the stage for a diploma, and one third of all student cohort dropout alludes to this kind of failure, especially towards underprivileged and minority groupings.

These kinds of statistics attest to the fact that there is still much that needs to be done with regard to student dropout. Reporting on statistics and interventions without student contextual understanding is, perhaps, why the on-going research on student dropout remains complex with no noticeable changes over the years. For example, one study on student dropout revealed that students drop out because they do not take advantage of the help networks open to them (Gordon 2002), suggesting that while interventions are available to students, they are not accessing them. This finding points to another area of exploration in student dropout, that of student identity and its influence on student dropout, to which this paper contributes.

Gender difference, as a student identity issue, has been explored in student dropout studies. Gordon (2002), for example, revealed that more male students drop out as compared to female students. Ozturk *et al.* (2009) study revealed that social loneliness was most prevalent in boys compared to girls, and this contributed to more males dropping out of higher education studies. Hence students' construction of their identity and what their needs are is another important vantage point of entry into the student dropout

debates. Tinto (1975) alludes to this in his student integration model where he argues that students need social integration into the university environment for greater retention possibilities.

Methodology

This paper draws from data produced through a tracer study methodology, tracing the students who have dropped out from the Bachelor of Education programme offered at a higher education institution in KwaZulu-Natal. Students who had dropped out from the Bachelor of Education qualification over a period of five years were the targeted population to explore reasons for dropping out of university. Tracer studies are useful in establishing pathways and reasons for taking such pathways of individuals who have experienced a particular phenomenon (Ramrathan *et al*. 2009). In this case, the Bachelor of Education students who have left a particular higher education institution over the last five years formed the tracer study group. Data was collected using semi-structured interviews from a sample of ten students who dropped out in the BEd programme in the last five years. As statistical generalisation was not the intention of this paper, a small sample that would provide deep qualitative responses to the reasons for dropout was sought. Several studies have been conducted on student dropout, most of which have reported in broad terms the socio-political and economic reasons for the phenomenon. Some studies have reported on the academic concerns about university study preparedness concerns that are linked to student dropout. While the overt reasons for dropping out of university seem clear within the South African context, there are some studies that point to a more intricate analysis of confounding factors and breaking point-factors (Ramrathan 2013). In order to access a deeper analysis of student dropout, the most appropriate approach would be through a qualitative study of students who have dropped out. Hence the tracer study design provided that opportunity. The convenience sampling of 10 students who have dropped out formed a suitable sample size to provide a deeper, richer account of why students drop out from university, from a student perspective.

The School of Education provided the researcher with the names of the students, after permission was sought from the ethical clearance unit. The limitations of tracer studies are the challenges of making contact with those

who have left the institution. As such, the first ten students who were reachable formed the sample for the data production. Four female and six male students were traced, one of whom did not want to participate in the study. Interviews were done over the phone. Critical theory and an interpretivist stance to understanding the data were used in the analysis process.

Findings Emerging from the Data

Findings through the tracer study revealed that finance was the predominant reason for dropping out of the university. Most of the sampled participants experienced repeated failure, which caused them to drop out of the university. These two generic reasons for student drop out have been accounted for in the vast number of literature on student dropout. It is expected if students fail repeatedly, they cannot continue without seeking institutional permission to continue. The repeated failure of modules also has a financial impact on students as they would be required to pay for their repeated attempts, exacerbating their financial burdens. However, with deeper engagement with the participants, the reasons for failure or dropout from university extend beyond finance and academic failures. Participants revealed that deeper issues of isolation such as stereotyping (STR), traditional belief systems (TBS) and institutional conflict (IC) are some of the confounding reasons for dropping out of university, with repeated failures and finances being the breaking point factors leading to departure from the university.

Figure 1 captures the relationship between the confounding factors and breaking point factors in student dropout from university.

I will use each of the confounding factors to develop a narrative to explore how students felt about being singled out which resulted in their decisions to dropout. One respondent could not be interviewed because he did not want to cooperate and after several attempt were made, he was eliminated from the sample.

Stereotyping of Students by Others

Stereotyping appears in two forms. The first is related to stereotyping of the individual based on physical appearance. *Respondent 4 left the institution in 2013. He said other students developed a stereotype against him because he*

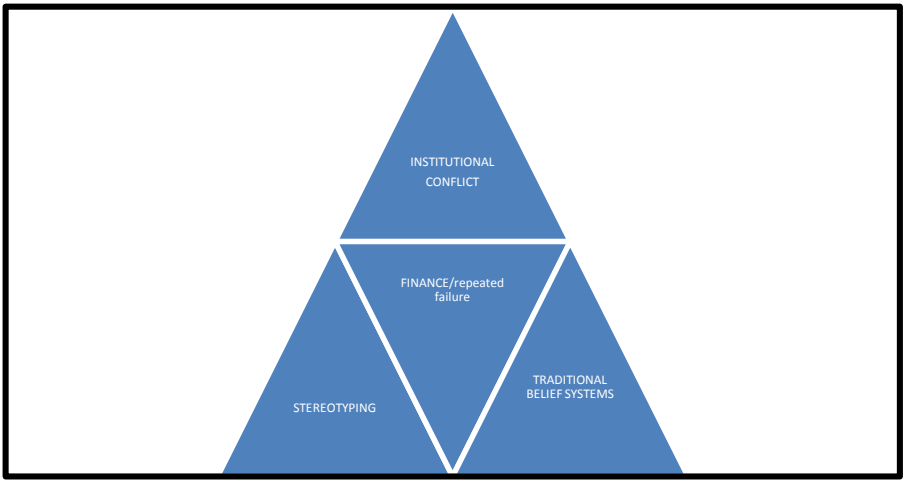

Figure 1: Factors of Student dropout

had tattoos and other students thought that he was a criminal. He also said he was discriminated against to the extent that during group work, no one was keen to have him in their group; it was only when they had failed to get enough members, that other students invited him to their group. He said that failing certain courses became an excuse for him to withdraw from university. This isolation by fellow students precipitated the onset of dropping out of university. This student struggled with the isolation as a result of stereotyping by fellow students to the extent that it affected his academic performance and he used his academic failure and financial hardship as reasons for dropping out, while the actual cause was due to isolation from his being stereotyped in a particular way that was neither inviting nor inclusive.

The second form of stereotyping appears in the form of academic ability. The majority of the participants interviewed indicated that they dropped out because of repeated failure of mandatory modules. In most programmes offered at the selected higher education institution, there are mandatory modules that students need to pass in order to progress further in their study programme. Students interviewed indicated that they could not progress further with their study because that could not pass the mandatory

modules despite repeating them. They believed that they were prevented from progressing by the institution based on the belief that they are not capable of passing the mandatory modules.

> *Students said they dropped out because they could not pass all their courses in first year of study. They could not proceed to the next level because they failed a mandatory course repeatedly. Some of them said that they came back to repeat the failed courses and they failed again. Furthermore, they said that they could not continue because they failed the same course for the third and fourth time and finances could not allow them to repeat continuously.*

The reasons for failing mandatory modules were not explored in depth, but is certainly an area worthy of exploration. Several assertions could be made, but need to be explored in greater detail. For example, why were such modules regarded as mandatory? Would labelling a module as mandatory give an impression of a gate-keeper's process or does this mandatory module have competences that are necessary for further engagement in the study programme? By labelling a module as mandatory, what levels of fear are instilled in students and what additional stress is placed on students for further progression? These are some of the concerns raised on mandatory modules which need further exploration. Nevertheless, the impact of the labelling of modules suggests that students are stereotyped academically based on their ability whether or not they are able to pass a mandatory module. Those that repeatedly fail a mandatory module are stereotyped as not being academically able to progress through the rest of the study programme, pointing to lack of students' competence without exploring the effects of labelling a module as mandatory or the need for such mandatory modules. The secondary effects of repeating mandatory modules is added financial burden which students could not afford, hence their departure from university and thus were considered as a student dropout.

Institutional Conflict and its Effects on Students

Once students are admitted into a programme and university, they have certain expectations of being a student. They rely on information presented to

them in the various forms of communication, including that of oral communications with university staff, both administrative and academic. When students do not get what they were promised or that the process of attending to their request is met with unfavourable attitudes and actions of staff, students lose interest in their study programme to the extent that it contributes to their decision to drop out from university.

> *Respondent 9, for example, had a Diploma qualification and Trade Test from a Further Education and Training (FET) College. He said he dropped out because he had found a job. He started looking for a job when he received empty promises from the School of Education. He was told that he will be credited for some of the courses he had already done after registration, and that did not happen. He said there was a lot of duplication in what he studied at FTE College.*

In this situation, the conflict within the institution is a potential area of exploration leading to a deeper understanding of students' needs, students' experiences with university staff and of programme quality to promote student retention. In the case of respondent 9, two contributory factors led to the student making a decision to drop out of university. The first is the unprofessional conduct relating to credit accumulation from past studies resulting in him not getting the promised credit. The implication (which points to the second issue) is that he was repeating the things that he had done in his past study programme. He felt that he was wasting his time and therefore sought work focusing on earning rather that wasting money by taking modules that he has already previously studied. The qualifications framework with the South African higher education system allows for credit transfer, but recognition of these credits obtained in past studies has become a major obstacle for the students. The resultant duplication of learning may have consequences, some of which may lead to students dropping out of university, as in the case with respondent 9.

Traditional Belief Systems

University contexts within South Africa have largely been influenced by Western ideology. The recognition of traditional belief in the life of students

is increasingly penetrating institutional practices. Students do, however, feel that their traditional beliefs are marginalised within the context of higher education. Those that are directly affected by their traditional belief systems sometimes sacrifice their academic study programme to attend to issues, practices, concerns and illness related to African indigenous belief systems.

One interesting case was that of a student whose performance was pleasing but still dropped out of university in her final year of study. The reason for her dropout is not quite clear, but had to do with traditional sickness. This was the information communicated by her mother.

This is a classic example of the fact that some students have good financial and academic performance but nevertheless they dropout, suggesting that personal issues do have a substantial influence in student dropout. This student had an illness related to metaphysical issues and was impacting on her university study. This factor is not unique among black South Africans. One student (Respondent 4) said that *the University need to take the issue of indigenous knowledge seriously because he also had challenges that he thought needed traditional healers*. Some Universities (like University of KwaZulu- Natal) do have the services of a traditional healer (Isangoma) at a clinic, which assists students who have problems, which require indigenous and traditional understanding of student sicknesses and challenges.

Is there sufficient space with the curriculum of study programmes for students to attend to their traditional belief systems that impact their lives? How can students exit their study programme and re-enter it when they have addressed and resolved their issues related to their traditional indigenous belief systems? These are some deep questions that need exploration within the higher education framework. Students feel compelled to pay less attention to the academic programme when faced with traditional issues, leading to possible failure or even dropout from university, as in the case of one of the respondents who dropped out of university in her final year of study. Academic ability was not the reason for dropping out. Her ability to negotiate between the demands of higher education and that of her traditional belief systems was the determining factor of her continuance of study. Was she able to suspend her academic study to pay sufficient attention to her traditional belief issues and then re-enter her academic programme at a later stage? Are students aware of this possibility of suspension of study programme with the possibility of re-entering and continuing from where they left off? Deeper insight into this possibility or potential spaces of

conflict with the student needs to be elicited to understand how higher education institutions can support the students faced with traditional indigenous issues.

Discussion

One way of understanding the complex lives of students and university education is to see the problem of student dropout in terms of dispositions. These dispositions that relate to the reasons for dropout, as gleaned from the participants, can be categorised into the following dispositions as identified by Garland (1994);

Situational dispositions: Problems arise from students' own life circumstances, such as changing employment situation or family obligations. (Respondent 1).

Dispositional dispositions: Personal problems that influence the students' persistent behavior such as motivation. (Respondent 7).

Institutional disposition: Difficulties that student encounter with the institution such as lack of support services. (Respondent 9).

Epistemological disposition: Difficulties faced by students in relation to course content. (Respondents 2, 3, 4, 6 8).

The four dispositions are from the perspective of students' account of their experiences while in higher education. While the epistemological disposition as expressed by students may suggest that students are struggling with the course content, the deeper exploration suggests that this is the manifestation of the compounding factors that students face in their higher education studies whilst at university. Students fail their modules, and some repeatedly, which ultimately lead them into financial difficulties in sustaining their studies. Some students are blocked from continuing because of repeated failures by course rules and regulations and therefore drop out from university A lack of interest due to prior study of subject content resulting from the institution not giving them due recognition for credit transfers, or

time away from lectures to attend to personal issues like indigenous traditional matters that affect their well-being also results in dropout. Hence the face of student drop out from university studies is academic failures. Some would continue to argue that the students cannot cope with the academic demands of the study programme, but the students' accounts suggest otherwise.

The other three dispositions, therefore form the basis for academic departures from university. Each of the other dispositions has their own set of complexities and are largely situational in nature. Distractions are part of one's life and the extent of the distraction may have severe implications for continuance of study. For example, the stereotyping of students based on the physical characteristics could be considered a dispositional disposition. In the case of the student who had tattoos; why and how this individual made the decision to cover parts of his body with tattoos is not considered. Perhaps low morale and lack of motivation in that individual prompted him to cover parts of his body with tattoos and this gave him symbolic hope to develop his motivational levels. But in attending to one disposition, this study has faced another disposition, that of being alienated from peer engagement in the study programme, a disposition that he was not able to bear, resulting in him dropping out of university.

Situational dispositions amongst students relate to the personal circumstances that the student may find him or herself in. As in the case of the student who had to deal with traditional matters, her academic studies did not matter as much as her need to attend to her personal traditional issues. Her decision to drop out of university in her last year of study attests to the gravity of the situational disposition in the life of this student. Hence, the effects on a students' study programme is dependent upon the nature and extent of the situational disposition in which a student finds him/herself.

Institutional dispositions are a serious concern amongst students. Considering the struggle that students experience in accessing higher education and having achieved access success, the further problems that they face within the institution are at times so severe that students decide to depart from higher education. The nurturing atmosphere that is so prevalent in the recruitment drive is almost lost once the student is registered. Students are sometimes left to the mercy of the institution's personnel, sometimes making the students believe that their rights are a privilege, as in the case of the

respondent who was not given course credits despite being promised these credits at the point of recruitment.

Drawing from the above discussion it can be seen that student voices on student dropout can bring a different gaze beyond that of the breaking point factors such as finance and academic performance in the discourse of student dropout. Delving into the complexities of students' lives reveals a hidden discourse of various dispositions that sometimes accumulate leading to students dropping out of university.

Conclusion

This paper sought to transcend the dominant discourse of student dropout by exploring this phenomenon through the lens of students who dropped out of university. Through a tracer study methodology, the ten respondents, when probed through a telephonic semi-structured interview process, revealed more complex discourses that contributed to a final decision of dropping out of university. These complex discourses form the confounding factors in student dropout, manifesting through the breaking point factors of student finance and academic performance. Hence this paper argues for a more detailed exploration of these confounding factors with a view to influencing how higher education institutions could address these dispositions, allowing for students to complete their study programmes, even if it is beyond the minimum study period for a study programme.

References

Abu-Oda, S. 2015. Data Mining in Higher Education: University Student Dropout Case Study. *International Journal of Data Mining and Knowledge Management* 5, 1: 15-27.

Ahmet, I.F. 2000. Examining the Factors Affecting Student Dropout. *The Turkish Online Journal of Distance Education* TOJDE 7, 3: 76-88.

Alghan, Boosi, Salim Saleem & Alqahtani AbdulmuhsenAyedn 2013. Students' Dropout Trends at Sultan Qaboos University and Kuwait University 2000-2011. *College Student Journal* 47 3: 499-506.

Bracey, G.W. 2006. High Dropout Rates: Fact or Myth? *Principal Leadership (High School Education)* 7, 1: 59-61.

Dreyer, J.M. 2010. Dropout in Distance Higher Education in South Africa: A Case Study. *Progression* 32, 2: 199-221.

Garland, M.R. 1993. Student Perceptions of Situational, Institutional, Dispositional and Epistemological Barriers to Persistence. *Distance Education* 14, 2: 181-189.

Gordon, G. 2002. *It's Personal for Dropout Student.* 2nd Edition. Glasgow: Herald and Times Ltd.

Henning, E. 1995, Qualitative Educational Research: Soft or Solid Option. *South African Journal of Education* 15, 1: 29-39

Kronick, R.F & C.H. Hargis 1998. *Dropouts: Who Drops Out and Why and the Recommended Actions.* Springfield 111:CC.

Mabizela, M. 1994. Voices from 1st Year Students at University of Western Cape (unpublished), University of Western Cape Development Centre 23-46.

Munsaka, E. 2009. The Influence of Family and Community on School Dropout among Rural Adolescents in Zambia. *New Voices in Psychology* 5: 64-77.

Letseka, M. 2009. University Dropout and Researching Work and Learning, In Walters, Shirley & Linda Cooper (eds.): *Learning/Work, Turning Work and Lifelong Learning Inside.* Cape Town: HSRC Press.

Muraskin, Wilner & John Lee 2004. *Raising the Graduation Rates of Low Income College Students.* Pell Institute for the Study Opportunity in Higher Education.

Neal, R.J. 2009. *Student Engagement and its Relationship to Student Attrition: A Descriptive Study of First-Time, Full-Time Eighteen to Twenty Four Year Old Community College Students at American River College.* University La Verne, ProQuest, UMI Dissertation Publishing.

Nkontawana, S.S. 2014. *Factors that Influence University Students Through-put and Dropout: An Analysis of the University of Kwazulu- Natal, College of Humanities.* Unpublished MEd Research Thesis. University of KwaZulu-Natal.

Ogude, N.A., W. Kilfoil & G. du Plessis 2012. An Institutional Model for Improving Student Retention and Success at the University of Pretoria. *The International Journal of the First Year in Higher Education* 3, 1: 21-34

Ozturk, N.D., E. Samur & A. Saltalu 2009. A Study on Loneliness Levels of Students in Faculty of Vocational Education in Terms of Some Variables.

Social and Behavioral Sciences 1, 1: 1272-1277.
Ramrathan, L. 2013.Towards A Conceptual Framework for Understanding Dropout in Higher Education. *South African Journal of Higher Education* 27, 1: 209-220.
Tinto, V. 2004. *Student Retention and Graduation: Facing the Truth, Living with the Consequences.* Washington DC: The Pell Institute for the Study of Opportunity in Higher Education.
Tinto, V. 1975. Dropout from Higher Education: A Theoretical Synthesis of the Recent Research. *Review of Educational Research* 45, 1: 89-125.
Tinto, V. 2004. *Student Retention and Graduation: Facing the Truth, Living with the Consequences.* Washington D.C.: The Pell Institute for the Study Opportunity in Higher Education.
Tinto, V. 2007. Research and Practice of Student Retention: What Next? *Journal of College Student Retention* 8, 1: 1-19.
Tinto, V. 1993. *Leaving College: Rethinking the Courses and Cures of Student Attrition*. San Francisco: Jossey Bass.
Tinto, V. 2012. *Leaving College: Rethinking the Causes and Cures of Student Dropout*. Chicago: Chicago University Press.

Duduzile Mzindle
Teacher Education and Curriculum Studies
School of Education
Durban University of Technology
dudun@dut.ac.za

Addressing Student Dropout Rates at South African Universities

Padhma Moodley
Rachael Jesika Singh

Abstract
The excitement of a South African University acceptance is shortlived, for many students, as the challenges faced is often overwhelming, resulting in many dropping out in their first year of study. This has negatively impacted on the desired national norm of an 80% success rate targeted by the Department of Higher Education and Training. This study aims to explore ways in which the dropout rates can be reduced thereby increasing the throughput levels of universities in South Africa. A qualitative study was conducted to identify the challenges students encounter that lead to the high dropout rates. Students who had previously dropped out from universities in South Africa were interviewed in order to examine their perceptions of how dropping out of university could have been avoided. Snowball sampling, a type of purposive sampling was used in this study. The findings indicate incorrect career choice, inadequate academic support and insufficient funding as being primary factors that led to the drop out of students. One of the recommendations this study makes is that university departments must align their support programmes with modules that have a high failure rate to help students cope.

Keywords: dropout, student, academic support, university, throughput.

Introduction
The ever increasing number of students who drop out of university remains a

major area of concern among Higher Education administrators. This intractable challenge has been the focus of many scholars globally. In response to this, student retention strategies have been adopted in a bid to remedy the situation. However, the problems and challenges persist year in and year out.

Pocock (2012) in his research on student attrition in an engineering faculty in South Africa explains the various terminologies used to describe students who do not return to university. Among these are 'dropout' which he deems as having a negative connatation because of its use in common phraseology; 'attrition', which from an engineering perspective implies the chipping of particles from a large piece of material, usually as either a deliberate action of a grinding mill or through incidental and unwanted collisions between materials; and 'leaving without graduating' which he deemed as being a more 'forgiving' term. In a more recent study by Larsen *et al*. (2013), the term 'dropout' is said to be commonly used to describe situations where a student leaves the university study without having obtained a formal degree. Furthermore, from a student's perspective the terms used to describe 'dropout' are: departure, withdrawal, academic failure and non-continuance. From an institutional perspective the term 'student attrition' is commonly applied to 'dropout' (Jones 2008:1). However, taking these distinctions taken into cognisance, this article uses the words 'dropout' and 'attrition' interchangeably.

In South Africa, recent reports (Monama 2013; Smith 2013) indicate that 5% of black and coloured students graduate from university. This demands the need for a more strategic and innovative approach to address the problem of dropout, especially amongst previously disadvantaged groups. It is unfortunate that a reactive approach has to be taken, considering that the issue of student retention is a challenge encountered by universities globally, for example, Victoria University in Australia attrition rates were around 25% for the period between 1994–2003 (Gabb & Cao 2006); University of Leeds 8,6%; University of Edinburgh 22.0% (Johnston 2005). Fisher & Engemann (2009) state that Ontario's universities had an attrition rate of 43% between 1998-2003.

In a study conducted by Pillay & Ngcobo (2010:234), stress factors such as accommodation issues; financial difficulties in addition to the academic demands made it difficult for students to progress through to the next year. The study further revealed that one in eight students believed they

had not made the right choice of study. This was as a result of very limited information being made available at the point of their career choice. Du Plessis & Gerber (2012) also looked into the proficiency of the medium of instruction which in many cases is English which students could not cope with, as this impacted on their reading and processing skills. These are just some challenges students face which can be associated with their reasons for dropping out of university.

As a pre-emptive measure to maintain healthy throughput levels at universities, this study explores the determinants of student attrition within the context of the South African Higher Education landscape. Subsequently concrete remedies are proposed in light of this problem. Whilst the problem of attrition is not unique to South Africa, some of the circumstances that forms the catalyst for the problem are unique. Previous research is evaluated against similar scenarios in South Africa to provide a framework of understanding this epidemic that plagues our universities.

Scanning the South African Higher Education Landscape

In order to provide the study with a comprehensive perspective on student attrition from a South African viewpoint, previous literature and research conducted in the area of student attrition is examined in order to understand more specifically the nature of the problems experienced at individual and institutional level.

A report compiled by Moeketsi & Maile (2008) for the the Human Sciences Research Council, revealed that in 2005, the Department of Education reported that of the 120 000 students who enrolled in higher education in 2000, 36 000 (30%) dropped out in their first year of study. A further 24 000 (20%) dropped out during their second and third year. Of the remaining 60 000, 22% graduated within the specified three-year duration for a generic Bachelors degree. This dropout cost the National Treasury R4.5 billion in grants and subsidies to higher education institutions without a return on the investment. The report further claims that at some institutions the dropout rates are as high as 80%. It estimated that one in three university students and one in two technikon students dropped out between 2000 and 2004.

In 2010 the Council on Higher Education (CHE) published a report: *Access and throughput in S.A. Higher Education: Three case studies,* which

detail the dropout rates of three universities in South Africa. One of the participating universities reported that of the cohort that started in 2000, 6.8% had left by the end of the year. This had increased to 11.8% by the second year and 17.3% by the third (CHE 2010). This university also reported a 20% dropout of undergraduate students in contact programmes. The second university in the report shows that between 2001 and 2004, there was an increase in the number of students dropping out of university with an average attrition rate in undergraduate programmes reaching 22.7% in 2003/4. Overall, in 2005 the dropout rate stood at 50% of the total number of students enrolled nationally.

The 2000 cohort study conducted by the Department of Education (DoE) presents an even more disturbing overall picture. By the end of 2004 (that is, five years after entering), only 30% of the total first-time entering student intake into the sector had graduated. 56% of the intake had left their original institutions without graduating, and 14% were still in the system (Scott *et al.* 2007). The contrast of attrition rates of students in relation to the requirement of the Department of Higher Education, which call for the total university enrolment to rise from 900,000 in 2011 to 1.5 million by 2030 (DHET 2012:x), intensifies the issue of attrition. The National Development Plan (NDP) supports this with a target of 1.62 million enrolments for 2030. Furthermore, the plan calls for 400,000 graduates a year by that date. With an already rapidly increasing number of students dropping out of university, these figures point to a grim outlook of what the future holds for universities and students in terms of dropouts.

Retention Strategies

The empirical evidence in literature suggests remedial action which is hoped will reduce student attrition rates at Higher Education Institutions (HEIs). Quinn (2013) in her research for the European Union suggests a holistic approach to retention is necessary: one which acknowledges all six factors (socio-cultural, structural, policy, institutional, personal and learning factors) leading to dropout and their inter-relationships. Nationally, higher education policy must be supported by policies to tackle wider socioeconomic and cultural inequalities. Demetriou & Schmitz-Sciborski (2011) identify research on optimism and individual strengths, and a focus of the positive psychology movement as areas to pursue in student retention strategies. The issue of

student attrition can be compared to the common cold where there are a number of remedies, each fashioned to suit the contextual circumstances, but offers no real 'cure'. It is anticipated in increase on a year-to-year basis and the severity to increase exponentially if no proper action is taken.

In response to the high attrition rates at South African universities, Ogude, Kilfoil & Du Plessis (2012) explore an institutional model for improving student retention and success at the University of Pretoria. This model was developed by the Steering Committee for Student Success which adopted a two-pronged process as a platform for an integrated institutional-wide approach, a research informed methodology using a developmental research paradigm (Richey & Klein 2005) and a systems theory as applied to management (Charlton & Andras 2003). The following is an adaptation of the key problem areas considered and explored by the committee:

A systemic approach to first year experience and student success which required the support and engagement of the university, faculties; support departments, students, high schools and external experts to design a system-wide process to improve the undergraduate (more specifically the first-year) experience.

The process dimension and link to mainstream academic activities where student success initiatives should address the entire student life-cycle from pre-registration to graduation with a focus on the first year and also align with the institutional strategic drivers of excellence diversity, sustainability and relevance. This included locating a specific focus within the faculty to embed student initiatives and rally the support of academic staff and students.

The link of the model to academic disciplines and involvement of academic staff focussed on modules that presented difficulties for students which inadvertently impacted negatively on pass and throughput rates. These were prioritised for intervention. Attention was drawn to the improvement of curricula, pedagogy and assessment.

Addressing diverse student sub-groups and key performance indicators which address the large numbers of students with diverse academic abilities that engage in high impact modules. Ogude *et al.* (2012) maintains that these students receive comprehensive academic, psychosocial, financial and other support using proven high impact practices which includes supplemental instruction; tutoring; peer mentoring, academic advising and psychological counselling.

Ogude *et al*. (2012) stresses the importance for the support of institutional leadership, collaboration between all stakeholders for collective impact and the flexibility of the model to accommodate faculty priorities and the alignment to the strategic intent of the university to ensure success at all levels. This model, in retrospect, depicts the institution's attempt in retaining students; however, this is just one part of the situation.

Pocock (2012) advises of an academic support programme to reduce student attrition through additional study skills assistance and peer instruction where a reportedly 15% increase in retention rates has been observed. A further recommendation by Moeketsi & Mgutshini (2014) for the student's lack of preparedness is the introduction of a student support programme – Assisted Passage to Success (APTS). The aims of the programme are to equip students with skills for higher institution learning, including specific competencies that support them in improving their skills for study. This programme will be directed at first year students who require guidance to overcome the challenges of university life. They highlight that the massification of higher education must be simultaneously accompanied by the provision of appropriate and adequate support for all students.

Swail's Theory on Retention

Student retention models are complex because of the number of inter-related variables that impact on student retention/dropout. It is also associated with a set of causal factors that researchers have studied extensively (Chacon, Spicer & Valbuena 2012). A popular model explaining student retention is that of Vincent Tinto whose model focuses on student integration. It is based on three spheres: cultural, social and academic, which have become the bases for many other theories and models. Tinto's model emphasises academic integration and social integration which depend on input variables of the student, the family environment and the institution (Chacon *et al*. 2012). Whilst these are relevant and important variables that impact on student retention at higher education institutions, his model does not include other reasons why students drop out, such as finances, poor academic performance, lack of family or social/emotional encouragement and difficult personal adjustment (De Witz, Woolsey & Walsh 2009).

A retention model developed by Swail (1995:21) is a comprehensive framework which comprises of five components – financial aid, recruitment

and admissions, curriculum and instruction, academic services and student services. These are generally major departments in most institutions (Swail 1995). The fifth component curriculum and instruction was added because of the direct impact it has on student retention. Swail (1995) stresses the importance for practitioners to understand the relationship between the framework's components. He highlights the ability of the campus departments to work together toward common goals and focus on students' needs.

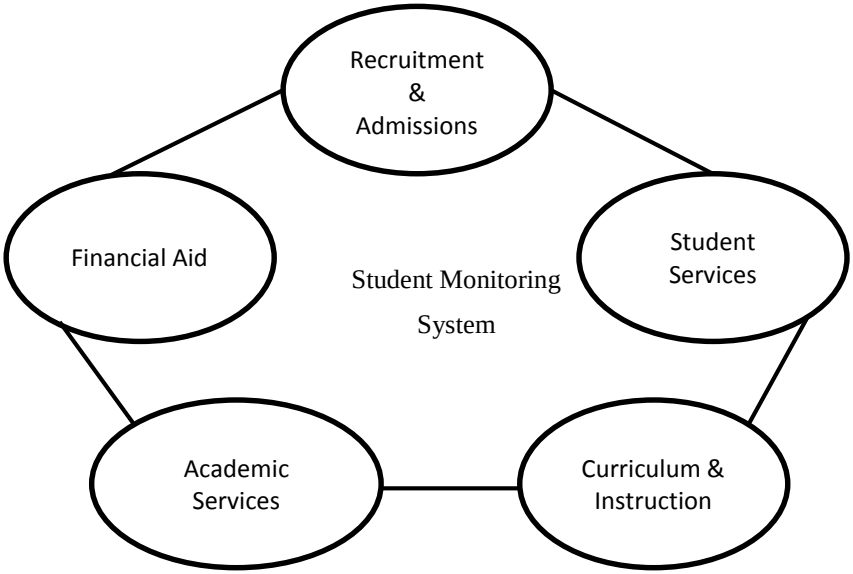

Figure 1: Five Components of the Student Retention Framework (Swail 1995)

Component 1: Financial Aid

Swail (1995) identifies this as a critical part of the framework in order to improve on student retention. For students from low-income backgrounds, many of whom are students of disadvantaged backgrounds; finances are the most crucial factor with regard to retention. In South Africa, the introduction of the National Student Financial Aid and Scheme (NSFAS) grant to assist students has been redeveloped in 2012 to increase its efficacy in student funding. The new model enables NSFAS to identify potentially eligible

students from grade 9 by providing learners with information on the availability of student financial aid whilst at the same time provide career guidance and relevant information on studying at university (Ministerial Statement on Student Funding 2012). The fund stipulates that students who qualify for loans will receive the Full Cost of Study (FCS) as defined by the means test to cover tuition, residence fees, meals and transport and private accommodation, where applicable.

Component 2: Recruitment and Admissions

Swail (1995) advises, from an institutional perspective, how an institution chooses its prospective students and what financial aid it offers is the crux of institutional business. Institutions must be cognizant of the institution-student fit. He further identifies three categories under the classification of recruitment and admissions which includes student identification, admissions and orientation. Several universities in South Africa, worried that continuing high failure rates among students will erode their global competitiveness, have raised admission requirements from 2011 (Makoni 2010). According to a snap survey of 12 universities conducted by the national weekly newspaper *The Sunday Times* in August 2010, eight have considered tighter admission requirements, believing that poor student pass rates are partly attributable to lax selection criteria. Swail (1995) prompts institutions to utilise a number of assessment and evaluation practices in the admissions office to determine the extent of student-institution congruence. He warns against the regular point system which by no means is the only measure of students aptitude or ability.

Component 3: Academic Services

The focus of academic services in terms of student retention should be based on providing supplementary support to students, in addition to class contact. He divides this component into six categories: academic advising, supplementary instruction, tutoring and mentoring, research opportunities, pre-university programming and bridging programmes. To be effective it is important that the university provides proper guidance that answers to the needs of the students (Swail 1995:20).

Component 4: Curriculum and Instruction

The ongoing development of curricula and teaching and learning practices are two important factors that are fundamental to student retention (Swail 1995). A recent proposal by the Council on Higher Education (2013) reveals that a curriculum structure can be either enabling or constraining in relation to key goals. Given South Africa's inequalities and development needs, it is essential that the curriculum structure should as far as possible enable students' underlying potential to be realised, always provided that the quality of the qualification is maintained (CHE 2013). Furthermore, the CHE has identified structural obstacles which prevent the realisation of the educational goals of the government:

> The articulation gap between secondary and higher education
> Transitions within the curriculum

South African higher education curricula have historically had a modular structure of courses and units, with varying levels of cohesion. Modularity facilitates flexibility in curriculum design. Therefore, South African curricula lend themselves to adaptation for different purposes and levels of preparedness (CHE 2013).

Component 5: Student Services

Tinto's model of integration highlights the need for social integration which is echoed by Swail. The role of student services should incorporate this as well as other issues students face on campus. Swail (1995) advises the atmosphere and climate (a collective contribution of the practices of administrative staff members, faculty members, support staff and other students) of the university is reflected by how the institution treats and supports students.

Methodology

Edmonds & Kennedy (2013:112) state that research under the qualitative method is often used to explore the 'how' and 'why' of systems and human behaviour and what governs these behaviours. A qualitative research

approach suited this study as it provided an opportunity to interpret the behaviour of the students within the context of their experience. Swails (1995) retention model provided a framework which helped guide the primary objective in the study in order to understand the students reasoning for dropping out of university. His theory identified five components or categories which was financial aid, recruitment and admissions, curriculum and instruction, academic services and student services. These formed categories in the qualitative approach used in this study. Through the phenomenological lens, this study set out to explore the perceptions, perspectives and understanding of why students drop out of university. This was done through the use of in-depth interviews. Utilising this rich data, the researchers then set out to explore viable and practical solutions to problems and challenges raised during the study.

Purposive sampling, a form of non-probability sampling, was used to identify specific students who had dropped out of university. These students were able to identify other students who had also dropped out of university (a snowball sample is built from the subjects suggested by previous subjects) (Baker 1999:141), thereby providing this study with a sample of fifteen participants from various universities in South Africa. Some of the interviews were carried out telephonically whilst the others were conducted in a neutral environment. A semi-structured interview schedule made up of 25 questions was used to guide the interview process. Leading questions such as 'Did you drop out of university because of financial difficulties?' were avoided as they would have skewed the responses received. Instead, areas such as academic and social integration and individual factors which provided a framework for each participant were explored first. Thereafter, the key question 'Why did you drop out of university' was asked. The order in which these questions were asked was very important to extract data-rich responses from the participants. The responses were recorded and transcribed immediately after each interview.

Data Analysis

Thematic and content analysis was carried out on the responses elicited from the interview process. A process of coding was used to connect the data and to show how one concept influenced another (for example, the relation of

individual challenges students face was connected to their ability to integrate academically). The method outlined by Sarantakos (1998:315) was used to analyse the data: data reduction - the stage where the data are coded, summarised and categorised in order to identify important issues of the aspects being researched; data organisation - the process of assembling the information around certain themes and presenting the results and interpretation; identification of patterns, trends and explanations which leads to conclusions which can be tested through more data collection, reduction, organisation and interpretation. The responses were categorised to generate major and minor categories. This process allowed for elimination of irrelevant data. Once the categories were determined, it was possible to identify major themes that developed from the study.

Results and Discussion

The results of the study are reported according to the major themes that emerged from the study. This study sought to identify the reasons why students drop out of university in a bid to reduce the dropout rates which is a challenge for universities globally. Table 1 expresses the quantifiable data of this study which was primarily the demographics of the students.

Table 1: Demographics of Students Interviewed

	Race Group		**Gender**		**Province**	**Year of study**		
	Black	*Indian*	*Male*	*Female*	*KZN*	*Y1*	*Y2*	*Y3*
	10	5	6	9	15	8	3	4
Total	N = 15		N =15		N = 15	N = 15		

A combination of factors at the individual level and at the academic level was cited by many of the participants for dropping out of university. The following themes emerged from the data which are significant towards the formulation of sound and practical strategies to reduce the dropout rates at universities:

Affordability
Lack of Academic Support
Lack of Career Guidance
Lack of Self-discipline and Commitment
First Generation Students

Affordability

In many studies, financial factors influenced students' attrition rates in higher education institutions. This study was no different. Institutions' attempts to rectify this problem are somewhat restricted bearing in mind the limited financial resources that are available. All of the participants interviewed expressed unaffordability as being one of the reasons they dropped out of university. One participant expressed the '*exorbitant cost for books was unbearable*'. Another cited '*high tuition fees which became higher when I failed a course*', as being the main reason for dropping out of university. Another participant who was registered for a BCom Degree in Accounting and who had successfully passed two years without failing a module stated that: '*We were not poor enough to qualify for university funding or exemptions'*. There was a participant who claimed '*I am not black enough to qualify for any form of funding. I have tried many avenues'.* Another participant who had previously qualified for the Rectors Award, which covered his tuition and accommodation fees in previous years, had to leave because he could not afford his third year fees. He had an impeccable academic record, however, his desire to complete his studies were halted by a lack of funding.

Manik (2014:152) maintains there is usually a combination of factors that leads to a student's departure. In her study, she found that a lack of finance coupled with other factors was the most cited reason for students dropping out at the University of KwaZulu Natal. Many parents are unable to meet the financial demands of university which forces the need for financial aid. Another study conducted by Moeketsi & Mgutshini (2014) revealed a major reason students discontinue their studies is because of a lack of finances. More specifically, students drop out because of the inability to fund tuition and books (Bangura 2006). In his study, Pocock (2012) examines the leaving rates in an engineering faculty at the University of KwaZulu Natal.

According to his findings, the breakdown of year of first entry to the university for part of his sample was: 27% left within or after their first year of entry; 39% left within or after 2 years of study with 34% spending between 3 and 9 years at university. From the 176 students interviewed, 84 (48%) students expressed financial difficulty as their reasons for leaving, a further 26% of students found the workload too hard or material too difficult to handle.

The determinants in his research were classified as academic factors (lack of counselling and advising influenced students to leave their programmes without graduating) and social factors (private social circumstances; how faculty deals with students; outside accommodation issues; relationships outside the classroom and living far from family).

Lack of Academic Support

The responses from participants to a series of questions pertaining to their academic performance and integration revealed that there is a lack of academic support. The following are few of the responses which were categorised to support the conclusion that there was a serious lack of academic support at some institutions. Furthermore, the meaning of these responses is not a straightforward matter of external or internal reference, but also 'depends on the local and broader discursive system in which the utterance is embedded (Wetherell & Potter 1988:169):

> *S3 –'Content was very difficult to understand which made me doubt my capabilities'. S4- 'it was difficult to determine what the lecturer required in the assessments'*
>
> *S7- 'Lecturers were not open enough to help us through understanding difficult content' .*
>
> *S9- 'Too large classes made it difficult to interact with the lecturer. Even having the slides available on Moodle did not help much'.*
>
> *S10- 'The tuts were not to the same standard as how questions would appear in a test or exam. I felt we needed higher quality material and more past tests to go over'*
>
> *S11- 'In class they taught us how to cook mutton curry but expected us to make breyani in the exams. Accounting is already*

difficult as it is, we either needed better lecturers or ones that could make us understand difficult concepts'

S12- 'assessments were not properly guided; I did not know what the lecturer expected when for example answering a question in an assignment'

S13- 'sometimes it was easier reading from the text book than listening to the lecturers with their foreign accents which made understanding information very difficult'.

S14 - 'I was terrified to approach my lecturers because I felt they were far too aloof. The tuts did not help either. It's as if they wanted us to fail'

S15- 'I was scared to ask the lecturer to simplify certain things as it would make me look stupid'.

Many of the participants interviewed displayed the inability to integrate academically. For this reason, Bitzer (2009:226) advises that the successful academic and social integration of students in higher education remains important with regard to study commitment, study success and preventing early student departure. It is important to examine the context of pre-existing conditions of the student to understand the depth of their responses. For instance, the response from student 3 (S3) was in essence a revelation of the gap that exists between grade twelve and the first year of university which universities should cater for through extended programmes. Similarly the response from student 7 (S7) pointed towards the reliance on a lecturer which was indicative of the students mind-set based on primary and secondary schooling which depended on the teacher to engage in the student, however at tertiary level, the dynamics of the learning system changes as tutorials are included to act as support mechanisms which are designed to engage the student further into the subject matter. Seven of the fifteen participants who were first year students expressed dissatisfaction with the ways in which lectures were conducted. They felt they were boring and uninteresting. The absence of adequate academic support that addresses the needs of students creates an atmosphere within the institution of a poorly organised structure that contributes to high attrition rates. Student attrition rates at higher education institutions are used to measure the internal efficiency of such institutions (Ghanboosi 2013). Willcoxson *et al*. (2010) found that later-in-the-year withdrawals or attrition may be more influenced

by consideration of institutional factors relating to the quality of interactions with academic and administrative staff, feedback processes, teaching quality, course advice and university policies and facilities.

Lack of Career Guidance

Of the fifteen participants interviewed, twelve maintained that they were not properly advised about their career choices and also cited this as one of the many reasons for dropping out.

> *S2-'at school I aspired to be an accountant. I got straight A's for Accounting and Maths and thought this [career] was for me but I think I needed to know more about this career. The level of accounting at school is very different from what is taught at university'.*
>
> *S3- 'My parents directed me in this career choice, they kept saying to me that I would be the first engineer in the family. I regret my choice'.*
>
> *S5- 'I chose this so I could be with my friends and not feel alone on campus'*
>
> *S6- 'I should have changed my degree in the second semester but I still continued thinking I would grow to like this field. I know its cost my family but this is what they wanted for me'.*
>
> *S7- 'I was told that university would not be easy, but I did not know it would make me reach a point that I actually began to hate what I was doing'*
>
> *S8- 'my father told me that I would make the family proud to be attending such a prestigious university because no one else attended university in my family but I guess this degree was far too difficult for me'*
>
> *S9- 'in the first month I knew I was in the wrong place. I began to lose hope every day because I was not interested in Sports Science anymore'.*
>
> *S10- 'if only I listened to my inner voice and chose differently'.*
>
> *S11- 'My cousin managed this course and I thought I could do it too but obviously I made a big mistake with this course'.*

S12- 'my choice was a very costly mistake. But at least I know what's not for me'.

S13- 'You know you hear of a successful this and that and you think, aah! I can do that but you soon learn that it's all glorified and just not for you'.

S14- 'My dad said this will be ok and he knew I did not like this field'.

S15- 'wrong option one. I should have rather chosen something that matched my personality'.

The multiple perceptions of poor career choice reflected here is evident of the different reasons that lead to students making uninformed decisions about their careers. In many cases the participants mentioned either being coerced by a family member or a friend into registering for a certain degree programme. This ultimately led to many students dropping out in the first year of study. One participant who dropped out because of a poor decision in her career decided to attend another institution studying something completely different. This participant is currently enrolled for a Master's degree. However when the discourse is analysed it is evident that one cannot adopt a statistical approach which describes concrete facts or responses that point to society's larger structural processes but a more humanistic approach should be considered which is subject-centred that captures the participants deep meaning, inferences and experience. This pertains especially to the responses of students S3, S6, S9 and S7.

Moeketsi and Mgutshini's (2014) study found that students indicated that they had abandoned their study on realising that the assumed financial and career pathway benefits they had anticipated were no longer feasible. Manik (2014) echoes this in her findings which indicate that poor career guidance and no career guidance prior to and entry into university appeared to contribute to the students departure. She further iterates that students were unaware how to choose subjects or modules at university level or what their subject choices at school prepared them for at university.

Lack of Self Discipline and Commitment

In response to the following questions 'What challenges you experienced in the first three months of university?', 'how did you cope with the heavy

workloads?' and 'How did you fit in socially?', many participants provided a wide range of responses ranging from: '*the workload was much higher than school and the test dates were very close together*', '*waking up in the morning after studying and preparing for classes the night before*', '*I did not have a life because I had so much of work to do which I was not ready for*', '*adapting from high school to university lifestyle eg. Not having teachers in university that spoon-feed you as they would in school*', '*the freedom of socialising whenever I could was bad for my studies because I did it all the time. I just could not draw the line*', '*I drank every day because it's what everyone in my group did. It was a nightmare to wake up for lectures the next day'.*

Many of the participants were unprepared for the demands of university both socially and academically. The inability to commit to their studies cost them their chance at a better life. The participants found the academic gap between high school and university far too wide to cope with. For this reason, many found it difficult to adapt. The new-found freedom of being away from home compounded other problems these participants were already trying to deal with.

Nel *et al*. (2009:975) alludes to various studies (Tinto 1993; Foxcroft & Stumpf 2005; Kivilu 2006) which have shown that students are increasingly underprepared for higher education studies. The gap between school and university does not only complicate the transition from school to university but also the level of academic success in the first year (Mumba Rollnick & White 2002; Nel 2006; Nel *et al*. 2009). In their study of six universities' first year student attrition, Willcoxson, Cotter & Joy (2011) found that attrition in the first year seems to be based on personal factors such as the student's inability to integrate into university social or academic systems, lack of goal commitment due to poor career choice and lack of academic preparedness.

First Generation Students (FGSs)

FGSs are defined either as students whose parents have no further education after high school (Dumais & Ward 2010) or as students of parents who have not graduated from a tertiary institution (Heymann & Carolissen 2011).Whilst there may be variations of the definitions of first generation

students, there is a rapid increase of first generation students in South African universities. When asked if other members of their family attended university, only four participants were able to confirm this. The balance of the participants was first generation students who lacked the moral support from their families to persevere through their challenges at university level. Their responses ranged from '*no-one in my family could explain to me what I was going to expect at university*', '*sometimes I needed to talk to someone who could understand what I was going through but there was no one in my family who could help me. I felt very alone. They did not know how I felt and how it affected me*'., '*the pressure of everyone expecting wonders from me was far too much especially when no one else had done this in my family*'.

These responses provide a glimpse of what first generation students experience at various levels. The psychological pressures coupled with the demands of university makes it more difficult to cope and for this reason, many students drop out. In a study conducted by the HSRC, one of the factors contributing to a 40% drop out rate at university by first year students was first generation students (University World News 2008). Inkelas *et al*. (2007:405) highlights that first generation students can differ from other students in many ways. First generation students also appeared to be less academically prepared having lower math, and critical thinking skills than other students who have parents who completed university (Choy 2001).

Recommendations

The recommendations made here are in accordance with the challenges experienced and highlighted by participants in this study:

Lack of Affordability

The primary responsibility of whether a student can afford to attend a higher education institution rests with the individual; however, both the government and the institution should play a more integral role given the inequalities of the past. The government's NSFAS scheme to fund students is inadequate to cover the expenses of students who are deserving of financial aid. In order to generate funds:

An annual tax should be imposed on all major organisations which will contribute to the scheme.

The country's lottery system can be used to include an additional draw where the proceeds are purely for educational development. Also a portion of the unclaimed winnings of the lotteries should contribute to the scheme.

Penalties and fines imposed on businesses for unfair business practices and government officials for maladministration, these funds can then be channelled into this scheme.

It is hoped that these strategies to generate additional revenue will significantly improve the financial crises faced by students. Higher education institutions could incentivise students who achieve distinctions in their modules by discounting these from the students account.

Lack of Academic Support

Supplementary support from every department within the institution is important for the retention of students. Each department within the higher education institution must provide a contingency plan to provide supplementary support to students at risk. These departments must align their support programmes with modules that have a high failure rate in order to help students cope academically. Students' performance and progress should be carefully monitored at all levels. Peer groups could be encouraged to foster learning amongst students. The introduction of bridging programmes in every programme can make accommodation for students at risk and for first generation students who find academic integration challenging. Improving on lecture delivery methods by making it more exciting, interesting and motivating will keep students engaged in class. The use of social networking technologies plays a pivotal role in maintaining contact with the student in the face of large classes.

Lack of Career Guidance

Whilst traditional admission practices at institutions incorporate some level of student assessment to verify institutional fit, a similar assessment must be designed to determine student's suitability to a particular field. Open days at

higher education institutions are a feeble attempt from the institution to assist with a student's career choice given the restricted time frames and given that these open days are attended by grade 12's. However, inviting students from grade 10 and each year subsequent to that, open days at the institution will help direct the student to make a more informed decision about their career. HEIs should host road shows at feeder schools to help promote successful programmes and assist in career choice. Furthermore, collaboration with industry and providing students more internship opportunities could potentially guide students in making the right career choice.

Self-Discipline and Commitment

Successful social and academic integration of the student at HEI's is mutually beneficial to the institution and the student. For this reason building an environment that is pluralistic and supportive of the students' needs will ease the process of integration. Providing students with study timeframes will assist with their planning and possibly improve on their academic performance. HEI's should revamp their orientation programmes annually. This will give them a chance to address other emerging issues that may negatively impact on the students' social and academic integration. It is recommended that summer bridging programs or transition programs could potentially decrease the issue of adaptation to college or university life. These programs in essence would provide a glimpse of college life and how to cope with academic pressure before they are required to attend university.

First Generation Students (FGS)

There are many FGSs in South Africa given its previous political dispensation which restricted university attendance. In order to assist FGSs, additional programmes should be introduced to help ease the transition process into HEIs. Also, career guidance strategies should be focussed on FGSs to reduce the first year dropout syndrome. If a FGS is identified as an at-risk student, then measures to prevent premature departure from the HEI could include a change in the degree programme that the student is registered for. This study further recommends that HEI funding should be preferential to FGSs given previous social inequalities.

Conclusion

The study clearly illustrates a variety of reasons why students leave HEI's prior to graduating. The affordability to attend a HEI remains a key reason amongst students for not completing their studies. Having to deal with other problems such as a lack of academic support and the lack of career guidance exacerbate the situation students are often faced with. The pressure of being a first generation student is an additional burden which this study shows was often detrimental to the student. Solutions to this problem are multi-layered with no immediate solutions. Broad generic, vague and ineffective attempts to provide a solution tend to lack the specificity of the issue and fail to penetrate the core of the problem. This study also confirms that students who drop out of HEIs do so because of a multiplicity of challenges experienced. The challenges of attrition and strategies of retention must be looked at contextually, where each challenge is evaluated based on an institution's individual circumstances**.** Commitment from both the student and the institution is paramount if the various strategies proposed can be effectively implemented.

References

Baker, T.L. 1999. *Doing Social Research.* 3rd Edition. New York: McGraw-Hill.

Bangura, A.K. 2006. *The Limitations of Survey Research Methods in Assessing the Problem of Minority Student Retention in Higher Education.* 4th Edition. San Fanscico: Mellen Research University Press.

Bitzer, E.M. 2009. Academic and Social Integration in Three First Year Groups: A Holistic Perspective. *South African Journal of Higher Education* 23,2: 225-245.

Chacon, F. *et al*. 2012. Analytics in Support of Student Retention and Success. (*Research Bulletin* 3, 2012.) Louiseville, EDUCAUSE Centre for Applied Research.

Charlton, B.G. & P. Andras 2003. What is Management and What do Managers Do? A Systems Theory. *Philososphy of Management* 3: 1-15.

Choy, S. 2001. *Students Whose Parents did not Go to College: Postsecondary Access, Persistence and Attainment* (No. NCES 2001-126). U.S. Department of Education. Washington D.C.: National Centre for Education Statistics.

Council on Higher Education 2010. *Access and Throughput in South African Higher Education: Three Case Studies*. Higher Education Monitor No.9. Available at: http://www.che.ac.za/sites/default/files/publications/Higher _ Education_Monitor_9.pdf. (Accessed on 4 July 2014.)

De Witz, S.J. *et al.* 2009. College Student Retention: An Exploration of the Relationship between Self-efficacy Beliefs and Purpose in Life among College Students. *Journal of College Student Development* 50, 1.

Demetriou, C. & A. Schmitz-Sciborski 2011. Integration, Motivation, Strengths and Optimism: Retention Theories Past, Present and Future. In Hayes, R. (ed): *Proceedings of the 7th National Syposium on Student Retention, 2011, Charleston*. Norman, OK: The University of Oklahoma.

DHET. The *Green Paper for Post-School Education and Training* 2012. Available at: http://www.dhet.gov.za/portals/0/Documents/GreenPaper. pdf . (Accessed on 25 June 2014.)

Du Plessis, L. & D. Gerber 2012. Academic Preparedness of Students - An Exploratory Study. *The Journal of Transdisciplinary Research in South Africa* 8,1: 81-94.

Dumais, S.A. & A. Ward. 2010. Cultural Capital and First-Generation College Success. *Poetics* 38:245–265.

Edmonds, W.A. & T.D. Kennedy 2013. *An Applied Reference Guide to Research Designs*. United Kingdom: Sage.

Fisher, R. & J. Engemann 2009. *Factors Affecting Attrition at a Canadian College*. Report funded by the Canadian Council on Learning (CCL).

Foxcroft, C.D. & R. Stumpf 2005. *What is Matric for?* Papers and Presentations to the Umalusi and CHET seminar on 'Matric: What is to be done?' Pretoria, 23 June, 8–20.

Gabb, M. & Z. Cao 2006. Understanding Attrition and Improving Transition: A Review of Recent Literature. *Post-Compulsory Education Centre.* Available at: http://tls.vu.edu.au/portal/site/research/resources/ Under standingattrition.pdf. (Accessed on 28 June 2014.)

Ghanboosi, Salim Saleem Al 2013. Factors influencing Students Attrition at Sultan Qaboos University (SQU). *Education* 133, 4.

Heymann, L. & R. Carolissen 2011. The Concept of 'First-Generation Student' in the Literature: Implications for South African Higher Education. *South African Journal of Higher Education* 25,7: 1378-1396.

Inkelas, K.K., *et al.* 2007. Living-Learning Programs and First Generation College Students Academic and Social Transition to College. *Research*

in Higher Education 48, 4: 403-434.

Jones, R. 2008. *Student Retention and Success: A Synthesis of Research*. London: Higher Education Academy. Available at: http://www. heacademy. ac.uk. (Accessed on 30 June 2014.)

Johnston, S. 2005. *Analysis of Performance of the Unviersity of Tasmania against Key National T&L Performance Indicators.* Available at: http:// acserv.admin.utas.edu.au. (Accessed on 02 July 2014.)

Kivilu, M. 2006. The Matriculation Examination: How can we Find out if the Standards are Falling? In Reddy, V. (ed.): *Marking Matric: Colloquium Proceedings*. Cape Town: HSRC Press.

Larsen, M.R., *et al*. 2013. *Evidence on Dropout Phenomena at Universities*. Available at: http://edu.au.dk/en/research/research-areas/danish-clearing house-for-educational-research/. (Accessed on 4 July 2014.)

Letseka, M. *et al.* 2010. *Student Retention and Graduate Destination: Higher Education and Labour Market Access and Success.* Available at: http:// www.ceia.org.za/downloads/2012/CEIA%20AGM%202012%20Presenta tion%20by%20Letseka%20and%20Breie,%20Student%20Poverty%20in %20Higher%20Education_3.pdf. (Accessed on 05 July 2014.)

Letseka, M. & S. Maile 2008. *High University Drop-out Rates: A Threat to South Africa's Future.* Available at: http://www.hsrc.ac.za/uploads/ pageContent/1088/Dropout%20rates.pdf. (Accessed on 08 July 2014.)

Makoni, M. 2010. *South Africa: Universities Raise Admission Standards*. Available at: http://www.universityworld news.com /article. php ?story =2 010080618132494. (Accessed on 19 July 2014.)

Manik, S. 2014. Shifting the Discourse: Student Departure in the Context of Relative Deprivations. *South African Journal of Higher Education* 28,1: 148-163.

Ministerial Statement on University Funding 2012. Available at: www.dhet. gov.za/.../Ministerial%20Statement%20on%20University%20. (Accessed on 16 July 2014.)

Mitchell, K. 1997. *Making the Grade: Help and Hope for the First Generation College Student (No ED413886).* Educational Resources Information Centre.

Moeketsi, R.M.H & T. Mgutshini 2014. A Comparative Time Review of Recruitment and Retention at a University in South Africa. *African Journal for Physical, Health Education, Recreation and Dance* 20,1: 246-264.

Monama, T. 2013. *University Dropouts Outnumber Graduates.* Timeslive. Available at: http://www.timeslive.co.za/thetimes/2013/08/22/university-dropouts-outnumber-graduates. (Accessed on 14 July 2014.)

Mumba, F.K., M. Rollnick & M. White 2002. How Wide is the Gap between High School and First Year University Chemistry at the University of the Witwatersrand. *South African Journal of Higher Education* 16,3:148-157.

Nel, C., C.T. de Bruin & E. Bitzer 2009. Students' Transition From School to University: Possibilities for a Pre-University Intervention. *South African Journal of Higher Education* 23,5: 974-999.

Ogude, N.A. *et al*. 2012. An Institutional Model for Improving Student Retention and Success at the University of Pretoria. *FYHE International Journal* 3,1: 21-34.

Pillay, A.L., *et al.* 2010. Sources of Stress and Support among Rural-Based First Year University Students: An Exploratory Study. *South African Journal of Psychology* 40,3: 234-240.

Pocock, Jonathan 2012. Leaving Rates and Reasons for Leaving in an Engineering Faculty in South Africa: A Case Study. *South African Journal of Science* 108,3/4.

Quinn, Jocey 2013. *Drop-out and Completion in Higher Education in Europe*. Available at: http://www.nesetweb.eu/sites/default/files/HE%20Drop%20out%20AR%20Final.pdf. (Accessed on 20 July 2014.)

Richey, R.C. & J.D. Klein 2005. Developmental Research Methods: Creating Knowledge from Instructional Design and Development Practice. *Journal of Computing in Higher Education* 16,2: 23-38.

Sarantakos, S. 1998. *Social Research.* 2nd Edition. Basingstoke: MacMillan.

Scott, I., N. Yeld & J. Hendry 2007. A Case for Improving Teaching and Learning in South African Higher Education. *HE Monitor* 6,October.

Smith, David 2013. South Africa's Universities 'Racially Skewed', Claims Watchdog. *The Guardian* 22 August 2013. Available at: http://www.theguardian.com/global-development/2013/aug/22/south-africa-universities-racially-skewed. (Accessed on 19 July 2014.)

Swail, W.S. 1995. *The Art of Student Retention, Educational Policy Institute*. Available at: http:// www.educationalpolicy.org/pdf/ART.pdf. (Accessed on 8 July 2014.)

Tinto, V. 1993. *Leaving College: Rethinking the Causes and Cures of Student Attrition*. Chicago: University of Chicago Press.

Wetherell, M. & J. Potter 1988. Discourse Analysis and the Identification of Interpretive Repertoires. In Antaki, Charles (ed.): *Analysing Everyday Experience: A Casebook of Methods*. London: Sage.

Willcoxson, L. *et al.* 2011. Beyond the First-Year Expereince: The Impact on Attrition of Student Experiences Throughout Undergraduate Degree Studies in Six Diverse Universities. *Studies in Higher Education* 36,3: 331-352.

Padhma Moodley (Samantha)
Faculty of Management Sciences
Durban University of Technology
padhmam@dut.ac.za

Rachael Jesika Singh
Department of Research Administration and Development
University of Limpopo
Jesika.Singh@ul.ac.za

Academic Intervention Experiences of 'At Risk' Students in a South African University

Samukelisiwe Mngomezulu
Labby Ramrathan

Abstract
High levels of student drop-out and low throughput levels experienced in undergraduate programmes in South African public higher education institutions have become a serious concern in terms of the efficiency of the higher education system and a threat to the transformation agenda and widening of access to previously disadvantaged population groups. Several interventions have been institutionalised to address this concern. This paper focuses on one of the major interventions that most universities have institutionalised to promote efficiency and throughput, that of academic support to 'at risk' students. 'At risk' students are those students that have been identified as being 'at risk' of failing in their academic programme. This paper presents a descriptive account of 'at risk' students' experiences of academic support from the point of identification to the receiving of academic support. This paper suggests that through enforced compliance in a structured and monitored process 'at risk' students see the value of academic support.

Keywords: access, academic support, intervention, ecological systems theory

Introduction
In South African higher education, the trend has been for higher institutions to intensify the integration, development or implementation of programmes

of support for students with a view to targeting successful completion of their degrees and diplomas. In part, this move is seen and approached as an integral component of the transformation agenda of higher education institutions. Transformation has led to a number of steps being taken to enhance higher education access to previously disadvantaged segments of the population (Akoojee & Nkomo 2007). These steps include access initiatives that emphasis programmes for the development of access routes (for example, incorporating foundational learning into mainstream degree programmes), increased awareness projects and the marketing of higher education in previously educationally-marginalised communities (UNESCO 1998; Pandor 2005). Policy and institutional reforms that target pedagogical access have been institutionalized through national and institutional policy frameworks. Curriculum initiatives to enhance access include curriculum reviews and academic support programmes. As a result of these interventions the student demographics of higher education have changed substantially. For example, the number of African students has increased from 213 000 in 1993 to 640 400 in 2011 (Council for Higher Education 2013b).

The changing demography in the student population strongly suggests a significant enhancement in the level of physical access to higher education for African and other previously marginalised population groups (Teferra & Altbachl 2004), but there is growing concern that the throughput and retention rates experienced systemically within the South African public higher education system will compromise the transformational agenda (Ramrathan 2013; Letseka & Maile 2008; Christenson, Sinclair, Lehr & Godber 2001). Although different explanations are advanced for this phenomenon, findings indicate that the poor throughput rate, even if not fine-grained in all nuances of quintile analysis, is largely accounted for by students from the previously marginalised population, for whom access has been enhanced (Moll 2004). Interventional strategies to address this growing concern includes identification and monitoring processes to identify students who are deemed to be at risk of failing, followed by academic support for these identified students. Academic support has several forms. These include language support, peer support and study skills support. These interventions have been instituted for over a decade, yet the throughput and dropout rates have not improved significantly (Council for Higher Education 2013a; Ramrathan 2013). Theoretically, the interventions instituted by public higher education institutions should have impacted on the academic performance of

students in their undergraduate studies, but this has not been evident through the vital statistics as recorded by the Council for Higher Education (2013b). Similar trends have been noted in other countries where, for example, decades of research leading to interventions to address the problem of student retention and throughput in the United States of America have been conducted with very little success being noted (Tinto 2012).

This article, therefore, starts with a contextual synopsis of the academic monitoring and support programme at a particular School of Education as a case study of academic support to students who were deemed at risk by the university. The article further engages recent debates and research in the area of academic monitoring and support and draws its focal lens from Bronfenbrenner's ecological systems theory to make meanings of students' understanding of their needs. In this article we argue that process factors rather than content factors are largely to blame for underperformance in higher education and that the ecology of the learning environments are the root causes of poor academic performance. We advocate that factors related to student underperformance in undergraduate studies now needs to be explored in greater depth to understand the dynamics of poor academic performance. The experiences of students within the STAR programme (a moniker created to protect the privacy of 'at risk' students), offered at the University of KwaZulu-Natal attest to this advocacy as this STAR programme is underpinned by process issues rather than academic content.

Monitoring and Support for Students Considered 'At Risk' – The UKZN (STAR) Programme

Being 'at risk' for the University of KwaZulu-Natal (UKZN) means not being able to meet the required minimum progression pass in the normal credit load for a semester. The students are categorised at various levels of risk using colour codes (green, orange and red) that signal the different progression commands (adapted from the traffic light system). This three-colour academic standing system is implemented university-wide and accessible on a central Student Management System (SMS). The SMS system alerts students (and support staff) to, firstly, their academic standing status, and secondly, the stipulated action/s to be taken.

The colour code *Green* represents good academic standing. What this implies is that the student has passed ≥70% of the normal credit load for the semester; and also has passed ≥75% of the credits expected, at that point, for regular progression in the chosen degree (for completion in the minimum time). At this point, a student is considered not to be 'at risk' and no specific action is required. However, optional counselling and support are available at the students' request in order to support the goal of passing all modules in the following semester.

The colour code *Orange* indicates that the student is 'at risk'. What this means is that either s/he has passed less than 70% of the normal credit load for that semester; or s/he has passed less than 75% of the credits expected, at that point, for normal progression in the chosen degree. The action required at this point is for the student to follow compulsory academic counselling and developmental programmes in order to make sure that s/he meets the goal of returning to green code status by the end of the following semester. However, it is the student's responsibility to participate in the required counselling and developmental programme and meet the set targets.

The colour code *Red* signifies serious under-performance, and that the student is 'at risk'. What this means is that the student's pass in the normal credit load for the semester is below required minimum progression requirement in the chosen degree. The action required of the student is to follow the stipulated and compulsory academic and personal/career counselling programmes of support. There is also a set condition that should the student wish to continue with the chosen degree, s/he may do so for one semester on strict probation. Specific and realistic conditions to be met at the end of the semester (which is normally a minimum load of 3 modules in the School of Education) are set by the university while provision for continued academic support is made for the student. It is the student's responsibility to make sure s/he participates in the personal/career counselling programmes of support (UKZN 2009).

Institutional Intervention in Supporting Students Deemed 'At Risk'

In this paper the Student 'At Risk' (STAR) programme is described in detail as a case study to illuminate the issues related to this institutional intervention

for academic support. The STAR programme was initiated as a response to a policy process that identified, monitored and tracked students that were regarded as 'at risk' based on the identification and monitoring system described above. Students who were identified as orange and red codes were required to consult the School's academic co-ordinator for programmed intervention for academic support. The STAR programme had several elements, outlined below.

Workshops

The workshops are an intervention facility that provides support for students in the form of coaching and mentoring in skills such as time management, life skills, study skills, academic literacy, report writing, exam preparation and resiliency skills.

The Drop-in-Centre

The Drop-in-Centre is an intervention that provides the space for peer-to-peer student mentoring. This intervention is meant to provide students with immediate support from student mentors who take turns to be on duty all day during week days.

Academic Counselling

The academic counselling intervention is meant to provide one-on-one counselling on academic support needs of the students by the academic monitoring coordinator, the lecturers and the academic qualifications coordinator. This intervention session provides students with academic guidance or advice.

Peer Mentoring

The peer-to-peer mentoring intervention is meant to offer tailored support via smaller peer-led breakout sessions. Sessions are held weekly and include individual support meetings.

Referral System

The referral system is meant to provide students with referral support by signposting and referring them to other university support structures according to their specific needs. This intervention is meant to facilitate appropriate targeting of the varying needs and challenges that impact students' academic performance, including personal and financial support.

Contextualising Academic Monitoring and Support: Concepts and Challenges

Globally, increasing rates of student access has brought into focus the question of readiness for the academic progress and success for students both for higher institutions and for students themselves. However, the level of readiness differs in each country (Archer 2005). The increasing rate of student access to higher education has resulted in increased concerns within higher institution institutions on how to manage their access, progress and throughput support (Letseka & Maile 2008). In order to address the concern, higher education institutions have designed programmes and interventions designed to enhance success in their studies (Adams 2006). However, increased global access to higher education has not matched by the same level of growth in resources and infrastructure in the affected institutions (Hubball & Burt 2004).

Thus, it has been argued that in order to balance the intake with the throughput rate, extensive intervention support programmes should be established (Agar & Knopfmacher 1995). How this act of balancing is achieved within the South African higher education space is important to study and understand, particularly so given the current drive for transformation. Improve understanding can lead to further development of contextualised systems of support intervention in order to enhance students' success. However, as much as access into higher education has improved, epistemological access is still a concern (Boughey 2003). The not-so-smooth transition from secondary school level to university undergraduate study level remains a challenge in the South African context.

South Africans are still divided along the lines of advantaged and disadvantaged, at least in terms of access to higher education institutions. The diverse nature of the student population since the opening up of access to

higher education (Chikte & Brand 1996; Goduka 1996) attests to the diversity that defines the higher education space, particularly in terms of race, gender, social status, cultural lineage and levels of academic achievements. A possible implication is the continued re-enactments of the legacy of higher educational access equating to privilege. Yet, students who enter the higher institutions come from different cultural backgrounds with different life practices, educational opportunities and a great variety of prospects, learning needs and academic potentials (Fraser & Killen 2005).

Globally, there is in practice systems of identification, intervention, monitoring and tracking that have been tried and implemented for students that are targeted as 'at risk' of academic failure (Aguilar, Lonn & Teasley 2014). The UKZN academic monitoring and support programme, the 'traffic light system' is a contextual example of these programmes. The execution of the process of identifying, tracking and monitoring of students targeted as 'at risk' tends to differ in terms of first years and returning students. Thompson & Geren (2002) highlight the difficulty inherent in identifying students who are 'at risk' of academic failure particularly at the point of entry. However, Campbell & Mislevy (2012) contend that early identification may assist in targeting and retaining students. Other studies maintain that identification often includes real examples of behaviours, such as absences or tardiness, missed assignments, mid-term grade performance, or even lack of academic goals (Kuh *et al*. 2005; Cuseo 2006). However, it is observed that these behaviours may not show at the beginning of the academic year but only later in the students' studies. Hence, the suggestion that intervention such as tracking systems, follow-ups to monitor and support students who the university identifies as 'at risk' are considered necessary in order to improve 'at-risk' student retention (Kuh et. al 2005; Cuseo 2006). This implies that for higher institutions to increase the throughput rate, early and continuous identification, tracking, monitoring, support and continuous follow-ups is a possible way forward.

A study of four institutions focusing on what criteria institutions use to identify, track and monitor 'at risk' students, indicates differences and similarities in this task (Kirk-Kuwaye & Nishida 2001). Furthermore, Kirk-Kuwaye & Nishida (2001) report that even though strategies used to identify, track and monitor 'at risk' students differ, institutions use the same main criteria which is academic performance that is below the expected standard. Kuh *et al*. (2005) also found that below par academic performance is a

common strategy used to identify 'at risk' students. What these studies have shown is that though higher institutions are reported in literature to be implementing a system of identification, monitoring and support targeted at students who are considered as being 'at risk' of academic failure, what seem to be lacking in the discourse is the students' voice on their experience of academic support. Students' voices, as opposed to institutional-oriented factors, seem to be missing in the determination of what constitutes their support needs, and the implications of their status as being 'at risk' of academic failure. This paper focuses on their voices through their personal experiences of being identified, then monitored and tracked through the intervention programmes.

Theoretical Framework

Research studies have drawn from the ecosystems theory in explaining the interrelation and inter-dependency of systems and role players (Bronfenbrenner 1995). Bronfenbrenner's (1979) ecological systems theory explains the interdependency of systems in the relationships between organisms and their physical environment at varying levels. Students considered to be at risk of academic failure are faced with varying levels of challenges (Ntakana 2011). There are challenges that may occur in the classroom (micro-level risk), in the home or school (meso-level risk), in the community (exo-level risk) and/or in the larger society (macro-level risk). At each of these eco-systemic levels of risk, there are differently but related risk factors that potentially compromise in part or as a combination with other levels of risk, their ability to perform, in this case their academic performance within their undergraduate programmes in a higher education environment.

These risk factors we can recognise and categorise as push and pull factors (Doll, Eslami & Walters 2013). An understanding of these factors perhaps permits a clearer grasp of how Bronfenbrenner's (1995) ecosystemic theory enables a holistic insight on what the 'at risk' factors are, and where they are embedded for students considered as 'at risk.'

Push factors are those factors from without the student, at exo-level and macro-level which, in practical terms, are related to institutional influence or impact.

Pull factors can be recognised as from within the student or student-induced. These are factors embedded in the micro and meso-levels.

Jordan, Lara & McPartland (1994) describe the push and pull factors in students' dropout as adverse experiences of the school environment that consequently lead to student dropout and within students' factors that compel and divert them from successful completion of schooling, respectively. Beyond these, a third factor is recognisable in what Watt and Roessingh (1994) explain as the 'fall factor'. This factor is described as induced by 'insufficient personal and educational support' provision for the student (Watt & Roessingh 1994:239). The fall factor can be recognised as bestriding all layers and levels of the Bronfenbrenner's ecosystemic theory and as such is pervasively embedded. In applying understanding of the push, pull and fall factors to varying levels of challenges (Ntakana 2011), students considered to be 'at risk' of academic failure face, it becomes possible to see through the lens of the multi-layered ecosystemic theory (Bronfenbrenner's 1995), the where and how complexities of 'at risk' student's challenges and their intersections.

Research Methodology

The attempt to understand students' experiences of particular intervention programmes at a particular institution informs the choice of qualitative case study design. A case study approach enabled a process through which data was collected by methods including individual interviews and focus group discussions. The justification of the choice of these methods is the need for collecting thick narratives that situate the students' experiences in their real contexts. According to Cohen, Manion & Morrison (2000), case study as an approach explores real people in real situations rather than merely demonstrating with abstract theories or principles.

Using a combination of focus group discussion and individual interview methods, the data for this study was collected from a purposively selected sample population that comprised twelve students from the School of Education at UKZN. These students were in their second to fourth year of study. Their experiences of academic support and intervention, their understandings of the 'at risk' status, how they navigate and associate their academic performance as 'at risk' students with other aspects of their lives

and environment were explored. Participants' consent was sought and obtained, and they were informed that the information they provided would be treated as strictly confidential and that their identities would not be revealed. In order to protect participants' identities, pseudonyms were used. Also, because of the sensitive nature of the discussions, participants were advised to avail themselves of psychological counselling which was provided by a university counsellor.

Findings and Discussion

From the focus group interviews, the reasons that emerged as possible causes for participants' poor academic performances were similar to those previously identified in studies. These included environmental issues such as language of instruction and poor preparation for higher education; institutional issues such as wrong programme choices and boring and unsupportive lectures; and personal issues such as finance and family concerns (Letseka & Maile 2008; Council for Higher Education 2013a. However, what emerged through in depth exploration was the value of environmental process issues. For example, on the issue of language barriers, the students reported that at their schools they were supported by their teachers who translated key concepts into their mother tongue language but that this translation support was completely lacking at university.

Some of the students who experienced language as a barrier to learning indicated the following:

> *'In high school, we were taught in isiZulu as a language. Other subjects were translated and the problem we faced at the university is that we have to write essays in English when we don't understand what to say or how to answer questions. At the university it is very difficult to translate what lecturers are saying, especially English-speaking lecturers who teach in a very difficult language; you have to listen very carefully.'* Zodumo.

> *'What is a problem here at the university for me is the language; I am not used to be taught in English, my teachers were teaching in IsiZulu. They will try and translate and explain in IsiZulu. To*

> *prepare for exams we used and practised previous question papers.'* Khethiwe.

> *'Even when I was attending Saturday classes in Grade 12, the classes were taught by Indian teachers and I struggled to understand what they were saying. When you try and practise talking English at school they will laugh at you, saying all those things that you think you are better than them.'* Nokuthula

From this data set, it seems that two important factors contributed to students' low performance in relation to language barriers within higher education. The first relates to the context of support that these students were accustomed to during their schooling. While school education was through the medium of English, despite their mother tongue being other than English, their teachers provided the language translation support to enable them to learn, understand and be assessed through the language of English. At university, this translation support was absent and these students then had an additional burden of becoming acclimatised to a new learning environment that privileged English. The second factor relates to how the environment is supportive of individual responses to the language barrier. While students had the opportunity of developing their communicative skills in English whilst at school, their ability to take up this opportunity was compromised by others within their school environment. Some learners made them feel uncomfortable when they attempted to develop and use their English language communicative skills, hence these students would rather not practice English language communication so as not to be embarrassed by their peers. These students then come into a university that privileges English as the medium of instruction; their English language communication is not sufficiently competent to support the independent study required of higher education in a language of instruction different from their mother tongue. A further factor in the language barrier category is the school environment which, through translation, that has compromised the students' preparation for higher education. By assisting the students with conceptual thinking through translation, students were being disadvantaged in that they did not actively take ownership for self-learning, a key element of higher education studies. The ecological system (Bronfenbrenner 1979) of the school did not resonate with the ecological system of higher education with respect to

language competence development and self-study, resulting in students experiencing difficulties in their academic programme. The participants blamed (or attributed their underperformance to) their school environment for not providing them the scope to prepare for higher education within the English medium of instruction.

Teacher paternalism was another process factor at the site of the school that compromised students' ability to cope within the higher education environment. The participants referred to their dependency on teachers and their lack of preparedness regarding academic issues prior to university. During their school study programme, their teachers were constantly reminding them about their responsibilities, and some sort of punishment was used to force them to study. At university, students are often independent and participants find it difficult to suddenly become responsible. They have no one to rely on and have no one who keeps motivating them to study. They are expected to be mature and independent students. The issue of teacher paternalism is highlighted by Warburton, Bugarin, and Nunez (2001), who state that the quality of academic experience and student-teacher dependency affects almost every aspect of success in postsecondary education. According to these researchers, school curriculum and teaching as well as learning style have a direct impact on a student's readiness for higher education.

One of the students who experienced teacher paternalism and self-regulated learning indicated that:

> *School was very different because you were given a task to do and if you did not do it you will be punished; this was forcing us to study, and then when I came to university no one was asking me to study.'* Nozizwe

> *'University is different because no one is behind you and pushes you which mean that you need to grow up very quickly. If you don't hand in your assignment it's your own story*.' Sabrina

> *'Things are different at university, I enjoyed my secondary school compared to university, and I was supported by my family and teachers unlike here where no one is behind you.'*

> *'At school teachers were supportive and they explained things clearly compared to university; I think my teachers assisted me more.'* Mbali

> *'The school did not prepare me for university at all because I struggled to write an assignment when I came to university. Lecturers don't spoon feed you like teachers do at school.'* Busisiwe

Analysis of this set of data indicates that two important factors have contributed to students' low performance within higher education. The first factor relates to the context of spoon-feeding that these students were accustomed to during their school study programme. This is an age-old problem; learners are not taught to work independently and engage with self-regulated learning (Biggs 2001). It surfaces in higher learning institutions where students are expected to work independently. Teachers at school level cushion and support students by helping them in class, giving them reminders, and helping them with homework and revision for exams. Some students appreciated the fact that teachers from secondary school gave them support; however this support also contributed to their lack of maturity. Students explained that they were spoon-fed by teachers and this created the culture of teacher dependency. From students' responses it shows that the transition from dependent pupil to independent student delayed adaptation to the higher education institution. Some students became 'at- risk' because no one provided extrinsic motivation to submit assignments on time and they were not 'pushed' to study; they had to grow up very quickly and develop intrinsic motivation to pass their studies see Sabrina's statement above). The second factor relates to punishment as a tool used to encourage them to study. For some, performance depended on harsh consequences such as punishment which is very different to an institution of higher learning where students are taken as adults who are responsible and mature. When students enter a higher learning institution the motivation to succeed has to shift from extrinsic to intrinsic motivation. Students were not able to make this transition. The peer support activity of the STAR programme has been designed to allow students to transcend this motivational continuum. This is another example of how the school ecology (Bronfenbrenner 1979) is different from that of the university environment.

Students' Experiences of the STAR Academic Support Programme

With a nuanced focus on process issues in relation to academic support of 'at risk' students, this section of the paper argues that forced recognition and forced compliance are necessary for students to recognize their need for and value of academic support. This argument is developed from the evidence provided by the 'at risk' students.

The university's system of notification of students' academic standing includes notification through the student central system (students log on to the university student management computer system to view their academic profile), notification through their results sheet posted to them and notification at the point of registration for the next academic year. Students therefore have several points of official notification. In addition, students have an idea of how they may have performed in their examinations through their experience of writing their examinations as well as in their knowledge of their performance within the semester of their study through the continuous assessment process of the modules that they take each semester.

> *'I saw my student colour changed from green to orange from student central system then I knew that my performance was unsatisfactory'.* Sabrina

> *'I saw it from student central that my status has changed and on my academic record it was written that I must consult the Dean.'* Musa

> *'During registration I was told to see the academic support office and they explained to me about my performance'.* Nevan

These quotes suggest that the students knew of the notification processes as well as the meanings of this notification. What seems important through these statements is that these students waited for formal communication from the university to inform them of their academic status. This could mean that students were either oblivious about what is going on and what constitutes as good performance for a student or they are in denial until the system informs them. The realisation of being labelled as 'at risk'

was delayed until the official notification of their academic standing, suggesting that these students were very reluctant to be introspective or believe that they were not performing well academically, as was expected of the programme. This formal notification through the colour code change forced students to recognize that they would now have to do something to retain their place within their higher education programme or risk being academically excluded.

This forced recognition of underperformance led to forced compliance with receiving academic support.

> *'When I was told I was part of the programme I didn't like it because I thought I was working hard enough to be able to pass my modules without the help of the program'.* Musa

> *'Initially I felt ostracised by the whole thing when I was told I need to attend the programme, now they know that I am not performing well, but it turned out to be a good thing because after talking to the support programme coordinator I was then sent to a university counsellor because of my issues and depression. I was then referred to the hospital and they discovered that I have bipolar disease.'* Nevan

What seems important through these statements is that these students felt that they were offered support that they did not need, suggesting forced compliance (receiving academic support). However as much as they had performed poorly in their studies, they still believed that they were capable of succeeding without intervention support. Initially, they reacted negatively towards the idea of attending the support program. This could have been brought about by the fear of knowing that the university was monitoring their progress. The change of attitude towards the programme was brought about by the positive assistance they received, particularly as they were given the space to talk about issues that compromised their academic performance (see Nevan's statement above). This shows that students are reluctant to receive intervention support until they see the benefit from it.

Students' Reflection after Intervention

The study reveals participants' views on how effective they perceived the academic support they received to be. It emerged from the study that the academic and support programme experienced by participants in this study provided a revelation discourse of broader support available such as that of the disability unit, financial support, health support and language support. Academic support also provided comfort and hope; it provided a space for a collegial and collaborative learning discourse and it contributed to a sense of community.

Comfort and Hope

Data from this study showed that some participants felt that the intervention programme provided them with emotional and psychological support. Some claimed that sharing challenges with other students in the programme and peer mentors made them feel that they were not on their own and that experience brought resilience, comfort and hope. Ntakana (2011) confirms this view in that a student's emotional instability may result in thoughts of students quitting their studies.

> *It feels comfortable to know that you are not on your own; there are other students who have problems like you*.' Rita.

> *'The Academic and Support programme makes me feel whole again; it gives me hope that I can still make it.'* Zodwa

> *'As much as I didn't want to go to the programme, when I got there I realised that it is good to have someone to talk to.'* Zodwa

> *'During my first year I was pretending to be fine but now I am seeing the counsellor because my mentor referred me to her.'* Nozizwe

As one may notice from the above quotes, when students experienced failure they tended to lose hope. The quotes show that the support programme and counselling makes students feel that they are not on their own and that the experience brings resilience, comfort and hope.

Collegial and Collaborative Learning Discourse

Data from this study shows that some participants felt that the intervention programme enhanced their academic performance. The workshops provided them with academic skills. In line with this view, Ntakana (2011) observes that student support programmes assist students to cope with a number of academic challenges such as writing and study skills, simplifying key concepts and providing a safe space for addressing their learning difficulties. Some of the students who indicated that the program provided enhanced their academic performance said:

> *My performance was not good, during workshops they advised us how to study, how to organise myself, time management …. The following semester I passed all my modules. I tried to follow all methods they were teaching us, it came at the right time for me.'* Focus group

> *'Workshops made me change my attitude completely; you need this programme when you arrive at the university, when you need a direction and how to do things.'* Nevan

In this case it shows that some students were empowered with academic skills and life skills that contributed to their success. Some students suggested that this support was needed from first year level and some thought it came at the right time, when they were struggling academically.

Physical Support

Institutional intervention and a support system like monitoring is experienced positively by some of the participants but some students feel they should have had this support from first year level. One of the students from the focus group claimed that the programme provided a platform whereby students shared their challenges and their ways of coping. This is shown in the selection of statements that follow:

> '*I felt supported, I wish I had this support in my first year level, having monitoring chart made me feel like I have something concrete*

that makes me go and speak to my lecturers. I feel comfortable talking to support programme staff about my challenges.' Sabrina

Some participants revealed that through the intervention programme their challenges were resolved. This is shown in the following statements:

'My mentor structured my work out for me to do on certain days.' Luke

'I feel comfortable to be able to talk to other students in the programme because they understand the programme better than other students. When they share their experiences you feel that you are not on your own.' Sindi

Most participants confided that the monitoring chart provided tangible support and it motivated them to consult with lecturers regarding their academic progress. Some participants expressed the view that attending the programme makes them feel part of the group and they were encouraged by sharing their experiences with other members of the programme. In support of this view, Kuh (2001) observes that structured interventions can contribute to the development of a positive culture.

Contributed to a Sense of Community

The data from interviews and the focus group revealed that the name of the support programme makes students comfortable about being part of the group because it did not make them feel inferior to other students. Participants felt that the programme contributed to a sense of community. This is shown in the following statements:

'The Academic and Support programme makes me feel a whole again, it gives me hope that I can still make it. I just feel as if some people still believe in me and when my friends ask me about this Academic and Support meeting they don't know what this is about.' Zodwa

> *'The name STAR doesn't make us feel that we are anything, any less than other students; it's a very confidential.'* Focus group

The positive name given to the support programme promotes the programme and creates a positive attitude towards attendance and encourages a commitment to the support programme. The programme is seen by some as support and they feel protected from being stigmatised. Some students described the positive value of feeling normal and having a sense of being cared for.

Evaluatory Discourse

Some participants confided that the programme had assisted them mainly by providing a space to talk, in identifying problems and in referring them to relevant sectors for further assistance in order to alleviate personal issues. One participant stated:

> *'My mentor organized for me to meet my lecturer and discuss my progress and get advice. I thought I am not going to pass this module because I had to attend my usual hospital appointment and miss lectures.' Luke*

> *'During first year I was pretending to be fine but now I am seeing the counsellor because my mentor referred me.' Nozizwe*

The participants claimed that the one-on-one sessions offered an opportunity to talk freely to their peer-mentors about any psycho-social, academic and personal issues. Some students needed an extra hand to take responsibility or to seek appropriate help. In line with this view, Dobizl (2002) observes that providing a formal programme using mentors or group counselling sessions, and an environment where help is always available, leads students toward a more fruitful and healthy lifestyle.

Enhanced Skills and Students' Accountability

The data generated from interviews for this research indicated that partici-

pants valued the assistance that they received from the workshops. This is shown in the following statements:

> *'My performance was not good, but during workshops they advised us on how to study, how to organise myself and how to implement time management. I followed the recommendation and the following semester I had passed all my modules. I still try to follow all the methods that they were teaching us. It came at the right time for me.'* Nokuthula

> *'When I was told I was part of the programme I didn't like it at all but when I got there I was astonished about the assistance I got from the programme; it actually assisted me with the way I was doing things.' Musa*

> *'Workshops made me change my attitude completely; you need this programme when you arrive at the university, when you need a direction and how to do things.'* Focus group

> *'When I got to the meeting I was assigned a mentor; am lucky that she is a female. She reminds me of my deadlines.'* Focus group

From participants' responses it was noted that the students benefitted from the support programme in terms of time management skills and adhering to deadlines. Another participant indicated that as much as he did not want to attend the programme it made him reflect on how he was doing things. One participant confided that being assisted by a mentor who was a female made her comfortable. In support of this view, Zajacova & Espenshade (2005) point out that a gap in study skills and practices, self-management capability or academic ability may be open to early intervention and improvement.

Discussion

It emerged from the study that notification of a change in students' academic progress to 'at risk' status causes a flurry of emotional and psychological

reactions in students. These emotional and psychological reactions ranged from shock, disbelief, demotivation and anger. Weiner (1986) explains reaction towards labelling as a common response. However, in the students' support intervention, 'labelling', which is what students, understood being identified as 'at risk' to be, produces reaction that manifests in alarm, concealment, forced compliance and acceptance. The findings show that students, being identified as 'at risk' and in need of the academic support intervention were perceived to be stigmatising.

What the findings also highlight is the value of the intervention programme, based on students' responses. Their responses indicate the following benefits: (i) breaking the isolation barrier – meaning that students had come to realise that they need not work in isolation – that there were benefits and tangible support that they could get by attending support programmes and did not just have to rely on their own strengths; (ii) forced exposure to support services offered at the institutional level – without this forced exposure through the academic support programme students would assume that there was no or little assistance to students outside of their lectures to assist them to cope with the demands of academic life; (iii) regulated compliance – a means to get students on track by consciously making them access the support services available to all students; (iv) monitoring progress – meaning that students were under positive surveillance to encourage them to continue receiving support and ultimately leading to student improvement – something that they may not realise if they were not monitored.

Conclusion

Several steps have been taken over the last decade in targeting previously disadvantaged communities as part of the initiatives for achieving the transformational agenda of higher education in South Africa. These initiatives include the enhancement of access to mainstream degree programmes. While this transformation goal seems to have been met, studies have also found that the dropout rates are extremely high in the first year of study and are of equal concern in other years of study (Van Schalkwyk 2007). Furthermore, the low number of students completing their degree in the minimum time is reported as alarming (Christenson, Sinclair, Lehr & Godber 2001). In view of these,

higher education institutions are beginning to develop and implement programmes of support for students with a view to targeting the successful completion of their degrees and diplomas. These intervention programmes are usually designed to respond to both their personal and academic needs.

However, it can be said that students considered as 'at risk' of academic failure are not being fully understood in terms of what exactly constitutes their needs outside of the prescription-imposed generic needs designed for them from an institutional perspective. This implies support programmes accessible from higher institutions need to offer general support to students that are targeted as 'at risk'. It is perhaps compelling to state that the one-size-fits all approach to academic intervention has not provided an adequate answer to the recurring deficit in 'at risk' students' successful completion of their studies. These students considered as 'at risk' are typified as individuals with specific needs and special issues (Ferguson 2000). Such needs and issues have to be holistically understood, specifically met, and timeously addressed.

References

Adams, J.D. 2006. *Prevailing and Preferred Learning Practices in University Student Support Programmes.* Unpublished Doctoral thesis. KwaDlangezwa: University of Zululand.

Agar, D.L & N. Knopfmacher 1995. A South African Application. *Higher Education* 30,1: 115-126.

Aguilar, S., S. Lonn & S.D. Teasley 2014. Perceptions and Use of an Early Warning System during a Higher Education Transition Program. Paper Presented at the Proceedings of the Fourth International Conference on Learning Analytics and Knowledge, March 24-28, 2014, Indianapolis, IN. New York, NY: ACM.

Akoojee S. & M. Nkomo 2007. Access and Quality in South African Higher Education: The Twin Challenges of Transformation. *South African Journal of Higher Education* 3, 385-399.

Archer, J. 2005. The Relationship between Indirect and Physical Aggression on Television and in Real Life. *Social Development* 14, 2:324-338.

Biggs, J. 2001. Enhancing Learning: A Matter of Style of Approach? In Sternberg, R. & L. Zhang (eds.): *Perspectives on Thinking, Learning, and*

Cognitive Styles. Mahwar, N.J. & Lawrence Erlbaum Associates.

Boughey, C. 2003. From Equity to Efficiency: Access to Higher Education in South Africa. *Arts and Humanities in Higher Education* 2, 1:65-71.

Bronfenbrenner, U. 1979. *The Ecology of Human Development: Experiment by Design and Nature*. Cambridge, Mass: Harvard University.

Bronfenbrenner, U. 1995. Developmental Ecology through Space and Time: A Future Perspective. In Moen, P., G.H. Elder & K. Luscher (eds.): *Examining Lives in Context: Perspectives on the Ecology of Human Development.* Washington D.C.: American Psychological Association.

Campbell, C.M. & J.L. Mislevy 2012. Student Perceptions Matter: Early Signs of Undergraduate Student Retention/ Attrition. *Journal of College Student Retention: Research, Theory and Practice* 14, 4:467-493.

Chikte, U.M. & A.A. Brand 1996. Diversity in South African Dental Schools. *The Journal of the Dental Association of South Africa/ Die Tydskrif van die Tandheelkundige Vereniging van Suid-Afrika* 51, 10:641.

Christenson, S.L., *et al.* 2001. Promoting Successful School Completion: Critical, Conceptual and Methodological Guidelines. *School Psychology Quarterly* 16, 4:468-484.

Cohen, L., L. Manion & K. Morrison 2000. *Research Methods in Education.* 5th Edition. London: Routledge.

Council for Higher Education 2013a. *A Proposal for Undergraduate Curriculum Reform in South Africa: A Case for a Flexible Curriculum Structure*. Report of the Task Team on Undergraduate Curriculum Structure. Pretoria: CHE.

Council for Higher Education 2013b. *Vital Stats 2011: Public Higher Education 2011*. Pretoria: CHE.

Cuseo, J. 2006. Red Flags: Behavioral Indicators of Potential Student Attrition. *Message to Fye-List.* Available at*:* fye-list@vm.sc.edu.

Dobizl, J.K. 2002. Understanding at Risk Youth and Intervention Programs that Help them Succeed in School. Unpublished Research Paper for the Graduate School, University of Wisconsin, Menomonie, WI.

Doll, J.J., Z. Eslami & L. Walters 2013. Understanding why Students Drop out of High School, according to their own Reports. *Sage Open* 3, 4: 1-15.

Ferguson, P. 2000. *Network Ingress Filtering: Defeating Denial of Service Attacks which Employ IP Source Address Spoofing*. Unpublished

memorandum. The Internet Society. Available at: https://tools.ietf.Org/ html /rfc2827.

Fraser, W. & R. Killen 2005. The Perceptions of Students and Lecturers of some Factors Influencing Academic Performance at Two South African Universities. *Perspectives in Education* 23, 1:25-40.

Goduka, I.N. 1996. Reconstructing Education to Affirm Unity and Diversity. *South African Journal of Higher Education* 10, 2:67-74.

Hubball, H. & H. Burt 2004. An Integrated Approach to Developing and Implementing Learning-Centred Curricula. *International Journal for Academic Development* 9, 1:51-65.

Jordan, W.J., *et al.* 1994. *Exploring the Complexity of Early Dropout Causal Structures*. Baltimore, M.D.: Centre for Research on Effective Schooling for Disadvantaged Students, the John Hopkins University.

Kirk-Kuwaye, M. & D. Nishida 2001. Effect of Low and High Advisor Involvement on the Academic Performances of Probation Students. *NACADA Journal* 21, 1-2:40-45.

Kuh, G.D. 2001. Student Engagement in the First Year of College. In Upcraft, M.L., J.N. Gardner & B.O. Barefoot (eds.): *Challenging and Supporting the First-Year Student: A Handbook for Improving the First Year of College*. San Francisco: Jossey-Bass.

Kuh, G.D. *et al.* 2005. Never Let it Rest: Lessons about Student Success from High-Performing Colleges and Universities. *Change: The Magazine of Higher Learning* 37.4:44-51.

Letseka, M. & S. Maile 2008. *High University Drop-Out Rates: A Threat to South Africa's Future.* Pretoria: Human Sciences Research Council.

Moll, I. 2004. Curriculum Responsiveness: The Anatomy of a Concept. In Griesel, H. (ed.): *Curriculum Responsiveness: Case Studies in Higher Education*. Pretoria: SUAVCA.

Ntakana, K.N. 2011. *The Effectiveness of Student Support Programmes at a Tertiary Institution: A Case Study of Walter Sisulu University.* Unpublished Master's dissertation. Durban: University of Zululand.

Pandor, N. 2005. *The Worst Legacy of Apartheid is Education:* Media Briefing released by the Minister of Department of Science and Technology, Friday, 29 April 2005. Available at: (http://uir.unisa.ac.za/ bitstream/handle/10500/11836/dissertation_nkhumeleni_c.pdf?sequence= 1).

Ramrathan, L. 2013. Towards a Conceptual Framework in Understanding Student Dropout in Higher Education Institutions. *South African Journal of Higher Education* 27, 1:209-220.

Teferra, D. & P.G. Altbachl 2004. African Higher Education: Challenges for the 21st Century. *Higher Education* 47, 1:21-50.

Thompson, B.R. & P.R. Geren 2002. Classroom Strategies for Identifying and Helping College Students at Risk for Academic Failure. *College Student Journal* 36, 3:399-403.

Tinto, V. 2012. *Completing College: Rethinking Institutional Action.* Chicago: University Of Chicago Press.

University of KwaZulu-Natal 2009. Academic Monitoring and Exclusions Policy and Procedures. Available at: http://www.ukzn.ac.za. (Accessed on the 30 August 2011.)

UNESCO 1998. *World Conference on Higher Education/ Higher Education in the Twenty-First Century*: *Vision and Action*. UNESCO World Declaration on Higher Education for the Twenty-First Century Conference, Brussels, 9 October 1998.

Van Schalkwyk, S.C. 2007. Crossing Discourse Boundaries – Students' Diverse Realities when Negotiating Entry into Knowledge Communities. *South African Journal of Higher Education* 21, 7:954-968.

Vygotsky, L.S. 1978. Interaction between Learning and Development. In Gauvain, M. & M. Cole (eds.): *Reading on the Development of Children.* New York, NY: Scientific American Books.

Vygotsky, L.S. 1978. *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.

Warburton, E.C., R. Bugarin & A-M. Nunez 2001. Bridging the Gap: Academic Preparation and Postsecondary Success of First-Generation Students. *Education Statistics Quarterly* 3, 3:73-77.

Watt, D.L. & H. Roessingh 1994. Some You Win, Most You Lose: Tracking ESL Student Drop-out in High School (1988-1993). *English Quarterly* 26, 3:5-7.

Weiner, B. 1986. *An Attributional Theory of Motivation and Emotion*. New York, NY: Springer-Verlag.

Zajacova, L. & T.J. Espenshade 2005. Self-Efficacy, Stress and Academic Success in College. *Research in Higher Education* 46, 6:677-706.

'At Risk' Students in a South African University

Samukelisiwe Mngomezulu
School of Education
University of KwaZulu-Natal
Mngomezulus1@ukzn.ac.za

Labby Ramrathan
School of Education
University of KwaZulu-Natal
ramrathanp@ukzn.ac.za

Support Strategies for Scaffolding Students' Acquisition of Academic Literacy Skills: Experiences at a University of Technology

Zilungile Sosibo

Abstract

Literature abounds on the reasons for students' high failure and attrition rates, and low academic output and throughput rates in South African universities. While a number of reasons explain this situation, there is copious research that emphasises the fact that second-language students' poor academic literacy (AL) is at the heart of this situation. What is most needed is sharing of intervention strategies that higher education institutions use to enhance students' AL. This study reports on AL challenges that students face at a South African University of Technology and intervention strategies that AL lecturers and those teaching literacy-related subjects employ in promoting students' learning. Scaffolding theory informed this study. Results collected through semi-structured interviews were analysed thematically. They revealed that although students encountered a number of AL-related challenges, providing them with interventions scaffolded AL acquisition. Results further showed that adopting an institution-wide collaborative approach helped to improve students' AL skills. The author recommends that universities should share best practice examples, as this adds to existing knowledge and assists other institutions that deal with AL challenges. Furthermore, students' life experiences and immediate environments should be incorporated in scaffolding their AL skills. Evaluation of interventions should be made to determine efficacy.

Keywords: academic literacy, intervention strategies, scaffolding, support, challenges, second-language learning

Introduction

The advent of democracy in South Africa in 1994 brought 'massification' of higher education (Kraak 2000), as more students, including those who had limited or no access to higher education began to flock to higher education institutions (HEIs). However, improved access did not translate into high success rates. There is a plethora of literature on high access and disproportionately low outputs and throughputs in South African HEIs at both undergradduate and postgraduate levels (Council on Higher Education (CHE) 2013a, b; Fisher & Scott 2011; Mabelebele 2012; Parry 2012). Several reasons explain this situation, including material factors in the form of financial constraints caused by low socio-economic status of students (Cosser & Letseka 2009; Letseka & Breier 2008; Letseka & Maile 2008); insufficient state funding in the form of the National Student Financial Aids Scheme (NSFAS), loans and scholarships (Badat 2009; Botman 2009; Mokgalong 2009) and delays in the disbursement of state funds (Fransman 2009; Mabelebele 2012). These delays lead to students taking part-time jobs to supplement their meagre financial resources (Letseka & Maile 2008; Price 2009), resulting in negative consequences for outputs and throughputs. In addition, there is consternation in South Africa about lowering of education standards at matriculation level by the Department of Basic Education and Training. Consequently, a gap between what the students learnt at high school and what they are expected to learn and master at university is widening.

Internationally, there is research to support the view that language proficiency is one of the most important factors in the students' academic success or failure (Adeyemi & Adeyemi 2012; Fakeye & Ogunsiji 2009). Stephen, Wellman & Jordan (2004) echo this view, arguing that 'high levels of English language proficiency are a critical factor in achieving academic success' (p.42). However, for second-language (L2) students, the articulation gap may be more pronounced, leading to them experiencing difficulty with engaging meaningfully with the learning and teaching discourses. Van Dyk & Weideman (2004) confirm this view, arguing that for L2 students, coping with university subjects in which advanced academic literacy (AL) skills are required becomes a much bigger challenge than for home-language (L1) students. Lewis (2004) & Tyobeka (2006) also express general concern regarding the literacy levels and educational attainment of learners who learn through English L2 in South African schools. This situation implies that L2

students' poor AL could be the root cause of their academic challenges that can lead to low outputs, throughputs and success rates.

Butler (2013) & Brady (2013) highlight the vulnerability of students who lack AL. In South Africa, vulnerability of students who study through L2 is likely to be prevalent and may be perpetuated by the fact that in this country, there are eleven official languages spoken in nine provinces. These languages include English, Afrikaans, IsiZulu, IsiXhosa, IsiNdebele, Siswati, Tshivenda, XiTsonga, Sesotho, Setswana and Sepedi. Whereas these languages should ideally maintain the same official status, the languages of learning and teaching (LoLT) in the majority of South African universities are predominantly English and, to some extent Afrikaans in a few universities. Yet, neither English nor Afrikaans is a home language to the majority of students in this country. Reiterating this fact, Butler (2013:72) states that 'One of the critical focuses of student underpreparedness is their levels of academic literacy (AL) in the languages of learning at South African universities (which are still mainly English and Afrikaans)'. Learning and teaching at South African universities seldom, if ever, occurs through the African languages, in spite of the fact that these languages are spoken by the majority of students in this country, compared to English and Afrikaans. Nonetheless, some universities, including the University of KwaZulu-Natal (UKZN) in the KwaZulu-Natal Province and the Nelson Mandela Metropolitan University (NMMU) in the Eastern Cape Province have made enormous efforts to have some university courses taught in African languages. These efforts might benefit those students who experience academic challenges as a result of being taught in a language that is not their home language.

Research Problem

While a wide array of research exists on AL both in South Africa and elsewhere, there is still a need for HEIs to share the support strategies that they provide for under-prepared students, in particular those joining the university for the first time and facing the challenge of learning through a language which is not their home language.

Purpose

This paper reports on the data presented by four educators on the AL challen-

ges encountered by university students, in particular English L2 students across different levels of study and fields in a University of Technology (UoT), as well as intervention strategies they employ to bridge this gap. During the writing of this paper, two of these lecturers taught AL, another taught Research Methodology and the other Communication in English. The latter two were included because, unlike AL lecturers who deal directly with this subject, they also incorporate AL extensively in their subjects. The research question was: What AL challenges do students encounter at university and what interventions do lecturers employ to address these challenges? In the context of this paper, AL denotes the ability to read, write, analyse, critique, think critically and creatively, and effectively communicate and understand when spoken to in L2. This paper builds on the work done by Sosibo & Katiya (2015) in which they presented a comprehensive strategy used by a South African HEI to identify at-risk students and to monitor and evaluate their progress. The rest of the paper addresses the Context of the Study, Theoretical Framework, Literature Review, Methodology, Analytical Results and Conclusion. The terms 'home language' and 'mother tongue' are used interchangeably throughout this paper.

Context of the Study

The setting of this study was a South African University of Technology (UoT) which developed as a result of the mergers of three technikons that took place in 2001. The merged technikons consisted of predominantly White and Coloured staff and students, with one of them being a mixture of predominantly Coloured and Black staff and students and few Whites. With the advent of the 1997 White Paper 3: The Programme on the Transformation of Higher Education in South Africa (Department of Education (DoE) 1997), massification of education began. The result was an influx of Black students who previously had limited access and educational opportunities to HEIs in South Africa. Like other HEIs with the same racial history, this institution still bears the scars of racial divisions, with the majority of the academic staff still White. Black academics are few and mostly occupy the lower rungs of the ladder. Nonetheless, the institution is currently in the process of racially transforming itself in order to efficiently serve the needs of its diverse student clientele.

With regard to the language of learning and teaching (LoLT), English is the medium of instruction in all but one satellite campus of this HEI. On the campus in which Afrikaans is LoLT, the majority of students' mother tongue is Afrikaans. On the other campuses where English is LoLT, the majority of students speak Afrikaans and an African language as home languages, with some of them speaking English as mother tongue. Unlike their English-speaking counterparts who learn through L1, there is a possibility that L2 students encounter more serious AL-related challenges than their L1 counterparts. As shown earlier, this paper investigates AL challenges experienced by students, with a special focus on L2 students and interventions made to scaffold acquisition of these skills.

Theoretical Framework

This study is informed by scaffolding theory (Bruner 1977; Vygotsky 1987). The concept of scaffolding was originally used by Bruner (1977) as a metaphor for depicting the form and quality of effective intervention by a learned person upon the learning of another. Bruner used this term to represent the special quality of the 'guidance' or 'collaboration' within the zone of proximal development (ZPD). He stated as follows:

> *[…] there is a vast amount of skilled activity required of a 'teacher' to get a learner to discover on his own - scaffolding the task in a way that assures that only those parts of the task within the child's reach are left unresolved, and knowing what elements of a solution the child will recognize though he cannot yet perform them (Bruner, 1977: xiv).*

The concept of scaffolding was later developed by Vygotsky (1987) who defined it as support to learning that is used by the most knowledgeable other (MKO) to build upon what students already know to arrive at something they do not know. The MKO can be a parent, teacher, mentor, peer, adult, and so forth. The support (to learning) that learners receive through their interactions with the MKO guides and assists them to move towards the acquisition of new skills, concepts and levels of understanding that they would otherwise not be able to grasp on their own without the

assistance from the MKO. The ZPD denotes the gap between what the students already know and what they are capable of knowing with the assistance of the MKO. The ZPD is the area in which the MKO interacts proximally with the learner/student.

By virtue of the fact that students are social beings, they grow and develop through their interactions with those among and around them. Therefore, the knowledge and skills (including academic and linguistic skills) they acquire are not removed from the contexts in which they are brought up. Freire (1973) speaks of the word and the world to emphasise the intrinsic relation between literacy and the environment in which the child develops. Therefore, it is incumbent upon the MKOs (in this case, AL lecturers and lecturers in general) to scaffold the students' acquisition of AL by utilising their (students') experiences and immediate environments. In other words, development of AL should not be divorced from the students' world but it should form an intrinsic part of it.

Literature Review

Academic Literacy and other Literacies

Academic literacy has aroused world-wide attention and intensive research, particularly in universities that use English as the LoLT (Goodfellow 2005, 2011; Jacobs 2005; Lebowitz 2004). This could be because students who lack AL skills are considered at risk of failure and dropping out (Butler 2013). Warren (2003) defines AL as complex linguistic, conceptual and skills resources necessary for analysing, constructing and communicating knowledge relevant to a subject or course. Yeld (2003 in Ratangee 2007) extends this definition by adding the following set of AL skills: comprehension of information presented in various modes, paraphrasing, presenting information visually, summarising, describing, acknowledging sources, and so forth. Nonetheless, Leki (2007) & Braine (2002) argue that AL includes more than just knowledge of these discrete language skills, contending that AL needs to be holistic and include, for example, competence in reading, writing, critical thinking, knowledge of independent learning process, tolerance of ambiguity, effective practice of good judgment and development of an argument, and a deeper sense of personal identity. Therefore, development of AL must be seen as a comprehensive and long-

term endeavour requiring practice and refinement of knowledge and the awareness of meta-cognitive learning processes. Based on these diverse definitions, one can see that no universally accepted definition of AL exists, a fact supported by Parkinson, Jackson, Kirkwood & Padayachee (2008).

Students in HEIs engage with new and evolving ways of knowing, writing, values and beliefs (Ratangee 2007). Ratangee argues that due to this, students need to become familiar with special concepts, theories, methods, rules and writing conventions related to the specific discipline in which they are enrolled. Due to the diversity of disciplines and ways of knowing embedded in them, one cannot talk about AL without relating it to other literacies, for example, cultural literacy (Hirch 2001; Schweizer 2009), functional literacy (Bhola 1995), critical literacy (Freire 1973; Mayo 1995; Shor 1999; Stambler 2013) and several other literacies, such as information, digital and workplace literacies. It is beyond the scope of this paper to discuss each of these literacies. Suffice to say that due to the complexity of the term 'literacy', trying to define AL becomes a very complex undertaking, as these other definitions of literacy have to be taken into account. Incorporating other literacies in the teaching and learning process presents students with a holistic set of knowledge and skills that not only allows them to understand conventions in their disciplines, but in other disciplines as well especially during this era in which interdisciplinarity is encouraged. Heritage (2013) confirms this view, arguing that when we talk about 'academic literacy' we actually mean 'academic literacies' which vary depending on the particular identity of the reader or student.

While some students acquire AL through their participation in their discourse community of the relevant discipline, this is not always the case with students who are less prepared for higher education studies, and especially for those who study through L2. In this context, a key challenge is to assist them to develop AL so as to enable their deeper engagement with university studies (Warren 2003).

Interference of Poor Language Skills with Critical Thinking and Comprehension

The language of writing in academia is a specialised discourse that presents a problem for many students, regardless of whether they are L1 or L2 speakers.

Butler (2013) contends that universities use a number of academic support strategies that serve as intervention measures for students with poor AL skills. However, he notes that offering AL support to underprepared students is 'not a novel idea in South Africa' (p.73). Part of the reason could be that this approach is seen as a deficit model when considering that in South Africa and other countries with students from diverse cultural and linguistic backgrounds, it is mostly students from disadvantaged backgrounds who receive this kind of support. Lea & Street (1998) and Archer (2010) argue for a new approach that challenges the dominant deficit model to understanding student writing and literacy in academic contexts.

In most institutions, producing written text presents a challenge for students, as they regard writing as merely a form of note-taking. Lombard and Grosser (2008) maintain that the capacity to use language is essential to executing critical thinking. Therefore, the lack of a solid foundation in language skills, vocabulary and grammar especially for students whose home language is not English may inevitably result in their inability to think critically. Coupled with this may be a struggle for students to locate information for assignments independently and inability to analyse questions.

National Interventions to Address Students' Academic Problems

The Department of Higher Education and Training (DHET) in South Africa has developed educational reform strategies to enhance students' success, retention and throughput rates. These include the DHET's teaching development grants, through which exorbitant amounts of money are spent on improving teaching and learning in HEIs. Some HEIs have utilised these funds by developing innovative teaching and learning (T&L) projects that have a huge potential for improving quality in higher education and students' AL specifically. In addition, the Quality Enhancement Project (QEP) that allows institutions to share best-practice examples is another promising undertaking by the CHE (CHE, 2013b). The CHE is a quality council (QC) that quality-assures the higher education sector in South Africa through its Higher Education Quality Committee. In addition, the CHE has developed a proposal to offer extended programmes as a means of enhancing the performance of undergraduate students, the majority of whom enter

university with some cognitive gaps in their academic knowledge (see CHE, 2013a). Collectively, these projects have a huge potential for enhancing students' AL and for improving their outputs and throughputs. These education reform policies do not preclude individual HEIs from developing interventions to address poor student success and high attrition rates; bearing in mind that students' needs vary from institution to institution as determined by their socio-economic status, rural geographical location, and other factors. Since each HEI and students' needs are unique, it may be difficult for the state to meet the needs of all the institutions satisfactorily. Individual institutions can play a critical role in addressing university students' AL needs that cannot be resolved at the national level. Therefore, interventions by respective HEIs to address students' academic challenges are indispensable.

Research Methodology

The qualitative case study constituted the design of this paper. The case under analysis was a group of Afrikaans- and African-language speaking students who learn and are taught through English L2 at a South African UoT. The sample of the study on which this paper is based consisted of four lecturers, two offering ALD, one RM and the other CiE. Coincidentally, all the participants were females. They were selected on the basis that they were involved with ALD at different levels, as well as across different disciplines and levels of study. They also dealt with students, the majority of whom learnt and were taught through English L2. Hence, the sampling of participants in this study was purposeful. In this paper, the ALD lecturers are identified as ALDL1 and ALDL2, while the Research Methodology Lecturer is assigned the pseudonym RML and the Communication in English Lecturer CiEL.

Data was collected through in-depth, semi-structured open-ended interviews with these lecturers. Although semi-structured questions were used during the interviews, participants were given opportunities to talk freely without interruption about the academic challenges that their L2 students encountered and the strategies they used to facilitate or scaffold students' learning. Data collection was not conducted in the traditional sense of interviews. As a result of this format, each data-collection session for each

of the four participants lasted longer than normal, for approximately an hour and forty-five minutes to two hours. Data collected from participants was recorded on a digital tape recorder. After each data-collection session, the researcher made sense of collected data by playing the recorder several times and identifying emergent themes. After transcribing data, she went through it repeatedly while highlighting the themes that emerged and classifying them into categories. In the end she came up with the themes that are presented in the next section on AL challenges and the strategies lecturers use to address them.

Ethical considerations were taken into account. Participants were informed of the purpose of the study, its voluntary nature and their right to participate or not and to withdraw at any time if they felt so. They were also informed about how data from the study would be stored, disseminated and used solely for this study and for educational purposes. Ethical clearance from the Ethics Committee with which the researcher of this paper is affiliated was sought and granted. The participants read the draft article to verify the authenticity of the data reported in the paper.

Results and Analysis

Academic Challenges Exhibited by English L2 Students

In this paper, the results include three sections. The first section entails the AL challenges that participants identified as encountered by university students in general, and by English L2 in particular. The challenges include Insufficient Comprehension Skills, Plagiarism and Inadequate Research Skills and Poor Logical-writing Skills. The second section presents intervention strategies for learning and teaching enhancement while the third addresses outcomes of the interventions. In the next section, the AL challenges are presented.

Insufficient Comprehension Skills

Data revealed that poor comprehension of the subject matter taught through English interfered more with L2 students' understanding of what was asked, required and expected from them than with their L1 counterparts. Stephen, Welman & Jordaan (2002) highlight the challenge of black students' poor

comprehension skills. This may imply that in the study on which this paper is based, the gap in the L2 students' ZPD was wider than in the ZPD of their L1 counterparts, requiring proximal intervention by the MKOs. ALDL1 reflected on this situation, stating that:

> *As academic-literacy development lecturer, it is not uncommon to identify inability of L2 students to understand what is required of them in the writing tasks because of the lack of vocabulary, resulting in their misunderstanding of the question(s) asked or tasks given. For instance, L2 students may not be able to answer a question not necessarily because they do not know the answer, but because linguistic challenges preclude them from understanding what was asked. Sadly, this situation can sometimes be easily misconstrued as poor academic performance on their part without scrutinising the source of students' comprehension barriers and whether they are related to second-language learning.*

RML echoed the same sentiment; that the challenge with L2 students is that they have more difficulty with analysing questions than their L1 counterparts, due to their failure to decode new concepts. She put it thus:

> *L2 students need to understand concepts clearly before they can analyse or apply them in context. The problem is that they tend to lack skills of decoding the meaning of concepts, resulting in memorisation. Consequently, they fail to distinguish between the terms 'describe' and 'analyse' and experience difficulty with moving beyond simple descriptions to applying or analysing concepts or theories in real contexts.*

ALDL1 echoed the fact that if students lack understanding [of concepts], they resort to memorisation. She explained that when this happens, the information is stored in the short-term memory and quickly dissipates, which could mean that students lack deep information-processing skills. Pickworth (2001) emphasises the same point, that memorisation results in regurgitation of information and a lack of understanding or insight. Memorisation often signals a gap in a student's ZPD that can best be closed by the MKO through assisted practice (scaffolding). Wilhelm, Baker & Dube

(2001) assert that assisted practice allows the child (or student) to internalise the strategies and language for completing a task, which then becomes part of his or her personal problem-solving repertoire. Once this is achieved, the strategy then enters his or her zone of actual development, enabling him or her to successfully complete tasks without help and to apply knowledge to new situations. ALDL1 emphasised that lecturers should ensure that students, in particular English L2 students get a good understanding of the concepts and vocabulary they require for each subject and study level. In my view, these concepts and vocabulary can become advance organisers that scaffold their acquisition of new subject matter (Bruner 1977). In an effort to assist their students with subject-specific vocabulary, some departments offer discipline-specific ALD (Butler 2013), such as Engineering English or Mathematics English, which probably facilitates an understanding of the subject matter taught.

CiEL explained that she always gave her first-year students a baseline test to determine their comprehension skills. Her view was that:

> *There is a high percentage of L2 students that do not comprehend because of the barriers in language. There is a strong relationship between being able to communicate in the LoLT and academic performance because language is a vehicle of communication and thinking. L2 students who struggle in English tend to fail to apply the concepts they have learnt simply because they lack comprehension and communication skills and are limited in thinking in English.*

ALDL2 mentioned that English L2 students who studied the sciences tend to struggle more with reading, understanding and applying scientific jargon than L1 students. She reported that due to the lack of understanding, students tended to regurgitate facts without being able to apply them in practical situations. These results were unexpected, considering that, as hinted earlier, these departments provide discipline-related ALD to scaffold their students' learning.

In this section, participants reiterated the same fact: that without comprehension of concepts and vocabulary, students fail to apply those concepts in context. Part of the reason, as shown, is that language is the vehicle of thought and communication. Therefore, there is a need to guide and assist students towards attaining actual development.

Plagiarism and Inadequate Research Skills

In literacy-related subjects such as Research Methodology, which involve a number of writing conventions, it may be easy to identify students' lack of AL skills. Therefore, RMLs are in a better position to identify and address AL gaps in their students. RML described her students' AL challenges thus:

> *More often than not, I have noticed that students are generally unable to develop an argument logically and coherently in their writing. They also struggle with supporting their claims with valid facts obtained from literature. Some of them exhibit poor reading skills and a lack of reading comprehension. In addition, they demonstrate inability to conduct research and to use in-text referencing appropriately, including developing a reference list using the Harvard referencing conventions. Synthesising literature, coupled with a high rate of plagiarism appears to be a big challenge for the majority of my students.*

Not only this, but it appeared that students encountered other challenges, as expressed by the same lecturer:

> *Most of our students, including postgraduate students who write theses, reflect inability to paraphrase using their own words. As a result, direct citations clutter their work. They also do not appear to understand that there is a thin line between paraphrasing and plagiarism, believing that if they have put it in their own words and cited a source, they have not plagiarised. This practice continues unabated even if they have been given a lecture(s) and notes on plagiarism or been informed about the consequences of plagiarism. Their analytical and argumentation skills are also severely lacking.*

CiEL echoed the same concerns but added that students lacked argumentation skills, which she identified as vital in academic writing and communication. She stated that,

> *When I gave them an essay to argue for or against a story, they went down flat. They wrote good essays but missed the point. After*

> *teaching them how to compare, cite, reference, they couldn't do it. Interpretation was so badly done that I had to sit down with then and ask: 'if I say this what do you say'? Most of them went blank. They also fail to back up their arguments with valid facts.*

Inability to paraphrase, interpret, raise arguments and buttress them with valid facts from literature may signal a gap in the students' AL. Intervention or scaffolding using concrete examples becomes critical in such situations.

Poor Logical-writing Skills

Both ALDLs emphasised that when students wrote an essay, literature review or discussion in a practical report, they needed to know how to present their work to the readers in a logical series of facts and reasoned argument. However, as they observed and reported, this was not normally the case. ALDL2 highlighted the fact that:

> *Instead, the majority of our students tend to write as they speak, not understanding that academic writing is formal. This situation might be an indication that they have not grasped the difference between academic discourse and everyday language.*

There was a mutual feeling among ALDLs and RML that when students wrote academic research reports, the majority of them wrote jumbled sentences with no logical order while others tended to write long, run-on sentences. The RML attributed this situation to the students' inability and a lack of understanding that they have to break sentences down to manageable chunks. CiEL expressed the view that a person who communicates logically in speaking tends to write logically as well.

Intervention Strategies for Learning and Teaching Enhancement

In most HEIs, students have access to support programmes including ALD, but the question is whether these programmes address the real issues that

concern the diversity of students (Mahlo & Taole 2011). National intervention strategies provided by the DHET to scaffold students' learning were presented earlier. However, these strategies are general and do not address ALD specifically. In the next section, intervention strategies provided by participants to scaffold students' AL learning are presented. They include ALD Lectures and Workshops for Improving Insufficient Comprehension Skills; Strategies for Addressing Plagiarism and Inadequate Research Skills; Addressing Poor Writing Skills and Mentoring through Individualised Attention.

ALD Lectures and Workshops for Improving Insufficient Comprehension Skills

ALDLs reported that academic support staff at university and faculty levels used a variety of intervention strategies to scaffold students' AL skills, in particular those L2 students at first and second years of study and at postgraduate levels as well. They mentioned that to enhance students' comprehension of concepts and ideas, they offer lectures per lecturers' identified needs, as well as through training workshops offered on a weekly basis. They added that the workshops focus on a number of AL skills, including discipline-specific concept development and acquisition, academic writing, reading and oral presentations.

RML reported that she addressed the issues she had raised regarding students' insufficient comprehension skills that probably led to their inability to decode, analyse and apply concepts as follows:

> *In my subject, I use many examples to define a concept so that my students can be able to decode its meaning and to apply it in context. Research is very concept-based: students have to understand concepts clearly so that they can be able to apply them in various contexts or in their proposals, essays and thesis. Sometimes when you ask students to analyse concepts or situations, they tend to describe them because they have merely memorised them. That is why I emphasise understanding of concepts first. After that I teach them analytical, critical and argumentative skills that they need in writing academic work. I also teach them to summarise, paraphrase and*

> *synthesise using précis writing, because it hones their analytical skills and teaches them to summarise coherently without plagiarising: a huge problem in the academia. Without thorough comprehension, students cannot perform these tasks.*

RML remarked that while L1 students may find these activities challenging, L2 students often found them even more difficult, as they have to do them in a language that is not their home language. CiEL reported that she addressed students' barriers to communication, comprehension, thinking in L2 and application of concepts that she had identified by letting them develop fifteen-minute dialogues from reading texts, which they dramatised using electronic media. She believed that dramatising text had many benefits for the students. The first was that it forced students to understand text. The second was that it helped them to think and communicate in English and interpret and analyse text. The third was that it honed their reflective and technology skills.

ALDL2 had mentioned that some students studying the science subjects tended to struggle with reading, understanding and applying science jargon in spite of the fact that discipline-related literacy is offered to them. As remedy to this situation, ALDL1 explained that,

> *To enhance students' comprehension of the sciences, we provide them with a computer-assisted reading programme (CARP). This programme offers a variety of reading, writing and mathematics skills and a wide variety of test activities. At the end of each unit students have to complete a test that assesses their understanding. We also have a one-on-one session once a week in the lab, after which students work on their own without assistance, as long as they have internet access. The students' progress is monitored closely*.

CARP is a good example of scaffolding, in which student and the MKO interact. Once a student has mastered the skill, the MKO 'phases out' to allow the student to work independently. Deducing from the strategies presented, it is clear that efforts are made to scaffold students' understanding of concepts so that they can analyse and apply them in a variety of contexts instead of memorising them. Ability to apply concepts is a good indication of actual development.

Strategies for Addressing Inadequate Research Skills and Plagiarism

Among the challenges exhibited by students with regard to research skills, RML and CiEL had both highlighted students' challenges with developing arguments and supporting them with valid facts. RML identified a number of gaps which, if not scaffolded, can severely limit students' academic-writing skills expected at university level. To close the gaps identified, RML explained that:

> *My lectures cover a series of topics related to proposal and academic writing in which students acquire the skills to conduct research. As I said before, it is very important to give them writing text in which they have to practice summarising ideas and paraphrasing without plagiarising. Sometimes I invite guest lecturers to teach aspects such as referencing and argumentation. It helps when students hear a different voice than the one they are familiar with. Students who write a thesis learn research skills as they go along or in research seminars. Although all the students struggle with research writing, for L2 students it seems much worse than for L1 students.*

CiEL reiterated the powerful tool of drama that she said she linked with interpretation and argumentation skills. She explained that before students can dramatise text, they need a thorough interpretation of facts which invariably assists with deep analysis. According to her,

> *With drama, everything goes, as I can ask students to create drama using text and to develop an argument to support or refute facts in that drama.*

She acknowledged, however, that language is a powerful tool for students to be able to accomplish these tasks, and that the majority of L2 students do not usually find activities like these easy.

Addressing Poor Logical-writing Skills

Data showed that interventions were in place for those students who exhibit-

ed signs of struggling with writing logically and efficiently due to low vocabulary and literacy skills, as described earlier. ALDL2 explained the intervention strategies they used as follows:

> *We provide them [students] with a series of sessions in which we discuss different topics relevant to their disciplines. We are aware that the disciplinary knowledge and skills they bring are crucial in scaffolding their learning and facilitating interactions. Each topic is unpacked by breaking it down into different parts such as, for example, instruction/command words (verb(s), focus/content words, and the scope that needs to be covered in the topic. After they have mastered the skills intended for these sessions, we give them different topics to unpack on their own, identifying the most salient aspects of the topic and organising them logically.*

ALDL2 further explained that while applying these strategies, students are guided into understanding formal writing and the structure of an essay, beginning with a paragraph which is preceded by a topic sentence. She elaborated as follows:

> *We assist them [students] in understanding that it is important to sustain a theme within a paragraph and that a good paragraph should depict unity and coherence. More importantly, we equip them with skills of identifying poorly- and well-written pieces of work. When they have mastered these skills, they are usually able to write logically and coherently and to make sound arguments. We illustrate to them how formal English is different from colloquial English.*

The RML reiterated the importance of précis writing as a tool for producing organised and logical writing. She emphasised the power of providing students with different examples in order to demonstrate what an organised and well-written text looks like. This is called modelling. Frederickson and Cline (2009) explain that, through modelling, learners are provided with step-by-step demonstration of what is correct or expected. Nonetheless, RML admitted that logical writing requires immense practice and that students usually find that learning to do it right is extremely difficult. CiEL emphasised the importance of organising ideas in one's head before

jotting them down on paper as a powerful communication and logical-writing strategy that she said she emphasised in her Communication in English classes.

Mentoring through Individualised Attention

Improving student support is inextricably tied to student engagement, and engagement for each student can be accomplished only through a more personalized academic and intellectual programme relevant for each student (Mahlo & Taole 2011). One-on-one interaction with students helps to enhance learning and to minimise the gap in their ZPD faster than when interaction takes place with a larger group of students. Mentoring is one such strategy. It is student-focused because it provides one-on-one support for students who can encompass guidance on study and school work, or social and emotional support. ALDL 2 emphasised that mentoring was one of the commonly used strategies found in effective programmes that they used to keep students actively engaged. ALDL 1 supported this view, acknowledging the fact that according to Freire (1973), learning is reciprocal: the learner becomes a teacher and the teacher becomes a learner. Evidently, in such a teaching-learning situation, interaction is strengthened and learning is enhanced. Interaction is central to scaffolding, as both learner and the MKO have to interact proximally in the ZPD to allow the former to move from the potential to actual development (Vygotsky 1987).

Outcome of the Interventions

It would appear that based on ALDL 2's statements, the impact of AL interventions yielded the desired results, as reflected below:

> *Students who participate in our intervention programmes appear to benefit, as reflected in their subsequent performance in the tests, assignments and presentations. This reflects improvement in their AL.*

She appeared to believe that the success of the interventions was based on a number of different factors that she named below:

> *We assign this improvement to the fact that our interventions are based on clearly defined objectives. They are also customised to suit particular departments and students. Furthermore, our interventions are mainly based on valid information on students' current performance and realistic implementation. In addition, in developing the programmes, we use discipline-specific material that students are familiar with instead of generic material that may not be relevant to certain disciplines. Most importantly, we use everyday information and experiences that are related to the students' immediate environments and lives.*

ALDL1 expressed the view that reading CARP had positive effects on the students' vocabulary-building and writing skills, which she maintained students could use to make meaning of the science discipline. Warren (2003) concurs, that vocabulary-building and writing skills are required to analyse, construct and communicate knowledge in the subject area. ALDL1 further held that cooperation of subject lecturers evidently assisted them to achieve their goals. She added that success of interventions was due to those dedicated lecturers who monitored students' progress in class and reported aspects that needed to be reinforced. RML was not as adamant about the positive effects of AL interventions as her ALDL counterparts; she felt that even with the interventions; students' academic writing skills remained relatively poor. She acknowledged other extraneous factors that may not necessarily relate to studying through L2 or poor AL. CiEL was, however, optimistic about interventions provided to students, maintaining that were it not for them, high failure, dropout and attrition rates among their students would probably have been higher than they currently are.

Conclusion and Recommendations

This paper presented an analysis of the AL challenges that students faced in a UoT, particularly those who study through English L2. Strategies that ALDLs, RML and CiEL used to ameliorate this situation were highlighted. Even though the intention of this study was to investigate the AL challenges specifically experienced by L2 students and interventions made to address them, the challenges and interventions reported in this paper cut across students, including those who learn through their home language. Data

revealed that most of the challenges that students faced were related to low AL levels, probably emanating from the fact that for some of them, English is L2 and not their home language. Nonetheless, other challenges may be rooted in the academic gap alluded to earlier or be the result of extraneous variables that have no association with this gap. From what one gathers from participants, the intervention strategies appear to have been effective in scaffolding students' AL skills. Nonetheless, improvement in the students' AL skills may not have always been actualised, as reflected in the doubts expressed by RML. In this paper, it is evident that the lecturers use a variety of scaffolding strategies to guide and assist students. Lecturers also make an effort to incorporate students' immediate environments and experiences, which helps them to link the word with the world. Strategies involving deep analytical and critical and creative skills do not appear to be emphasised by all participants. Other literacies such as cultural, critical and information literacies do not appear to receive emphasis either. Yet these skills and literacies are crucial for students to be critical, analytical and able to function in the global world. It appears that for AL interventions to be effective, they should be implemented university-wide rather than as isolated, stand-alone entities provided on certain days under certain circumstances. Evaluation of interventions through pilot studies and other means is essential.

The study on which this paper is based was designed to share knowledge with other HEIs who may be experiencing challenge(s) related to students' poor AL. This is because HEIs seldom document the knowledge, skills and intervention strategies that they use to scaffold students' AL skills, in particular those students who learn through a L2. Yet this challenge permeates South African HEIs; many of which admit students from diverse backgrounds with linguistic and academic challenges. There is a need for robust research and sharing of strategies among HEIs on how to overcome students' AL related challenges. Sharing of best practice examples has a potential to reduce or eliminate these challenges among university students, in particular among English L2 students. In turn, it can improve students' success, output and throughput rates and minimise their high dropout, attrition and failure rates.

References

Adeyemi, B.A. & B.A. Adeyemi 2012. Influence of English Proficiency on

Junior Secondary School Achievement in Social Studies in Osun State, Nigeria. *Journal of Educational and Social Research* 2, 2: 29-33.

Archer, A. 2010. Visual Dimensions of Academic Discourse in Higher Education. *Communitas. Journal for Community Communication and Information Impact* 15: 57-71.

Badat, M.S. 2009. Input from Vice-Chancellor Dr. M.S. Badat, Rhodes University. *Insight: Higher Education South Africa* 1: 10-12.

Bhola, H.S. 1995. *Functional Literacy, Workplace Literacy and Technical and Vocational Education: Interfaces and Policy Perspectives*. Paris: Section for Technical and Vocational Education, UNESCO.

Botman, H.R. 2009. Input from Rector and Vice-Chancellor Prof H.R. Botman, Stellenbosch University. *Insight: Higher Education South Africa* 1: 13-15.

Brady, K. 2013. Towards a University-wide Approach to Developing First-Year Students' Academic Literacy and Professional Communication Skills. Paper Presented at the 16th International First Year in Higher Education (FYHE) Conference, 7-10 July 2013, Wellington, New Zealand.

Braine, G. 2002. Academic Literacy and Non-Native Speakers Graduate Students. *Journal of English for Academic Purposes* 1, 1: 59-68.

Bruner, J. 1977. *The Process of Education: A Landmark in Educational Theory*. Cambridge, Massachusetts: Harvard University Press.

Butler, G. 2013. Discipline-Specific versus Generic Academic Literacy Intervention for University Education: An Issue of Impact? *Journal for Language Teaching* 47, 2: 71-88.

Coffin, C. *et al.* 2005. *Teaching Academic Writing: A Toolkit for Higher Education*. London: Routledge Taylor & Francis.

Cosser, M. & M. Letseka 2009. *Student Retention and Graduate Destination: Higher Education and Labour Market Access and Success. Monograph.* Pretoria: Human Sciences Research Council.

Council on Higher Education 2013a. *A Proposal for Undergraduate Curriculum Reform in South Africa: The Case for a Flexible Curriculum Structure*. Pretoria: Council on Higher Education.

Council on Higher Education 2013b. *Quality Enhancement Project: The Process*. Pretoria: Council on Higher Education.

Department of Education 1997. *White Paper 3: Transformation of Higher Education in South Africa.* Pretoria, South Africa: Dept. of Education.

Fakeye, D.O. & Y. Ogunsiji 2009. English Language Proficiency as a Predictor of Academic Achievement among EFL Students in Nigeria. *European Journal of Scientific Research* 37, 3: 490-495.

Fisher, Glen & Ian Scott 2011.*Closing the Skills and Technology Gap in South Africa*. Background Paper 3: The Role of Higher Education in Closing the Skills Gap in South Africa. Africa Region: The World Bank, Human Development Group.

Fransman, M. 2009. *National Student Financial Aid Scheme (NSFAS): Input by Higher Education South Africa; Masakh' Isizwe Bursary Briefing*. Parliamentary Monitoring Group. Pretoria: Masakh' Isizwe Centre for Excellence.

Frederickson, N. & T. Cline 2009. *Special Education Needs, Inclusion and Diversity*. Buckingham, England: Open University.

Freire, P. 1973. *Pedagogy of the Oppressed*. New York: Seabury Press.

Goodfellow, R. 2011. Literacy, Literacies and the Digital in Higher Education. *Teaching in Higher Education* 16, 1: 131-144.

Goodfellow, R. 2005. Academic Literacies and E-learning: A Critical Approach to Writing in the Online University. *International Journal of Educational Research* 43, 7-8: 481-494.

Heritage, M. 2013. *Evidence of Academic Literacies*. National Center for Research on Evaluations, Standards & Student Testing. Los Angeles, CA, USA: UCLA Graduate School of Education & Information Studies.

Hirch, E.D. 2002. *Cultural Literacy. What Every American Needs to Know*. New York, NY: Houghton Mifflin Co.

Jacobs, C. 2005. On Being an Insider on the Outside: New Spaces for Integrating Academic Literacies. *Teaching in Higher Education* 10, 4: 475-487.

Kraak, A. 2000. Changing Modes: A Brief Overview of the Mode 2 Knowledge Debate and its Impact on South African Policy Formulation. In Kraak, André (ed.): *Changing Modes: New Knowledge Production and Its Implications for Higher Education in South Africa*. Pretoria: HSRC Press.

Lea, M.R. & B.V. Street 1998. Student Writing in Higher Education: An Academic Literacy Approach. *Studies in Higher Education* 23, 2: 157-172.

Lebowitz, B. 2004. Becoming Academically Literate in South Africa: Lessons from Student Accounts for Policymakers and Educators. *Language and*

Education 18, 1: 35-52.

Leki, I. 2007. *Undergraduate in a Second Language: Challenges and Complexities of Academic Literacy Development*. Mahwah N.J: Lawrence Erlbaum Associates.

Letseka, M. & M. Breier 2008. Student Poverty in Higher Education: The Impact of Higher Education Dropout on Poverty. In Maile, Samuel (ed.): *Education and Poverty Reduction Strategies: Issues of Policy Coherence.* Colloquium Proceedings. Pretoria: Human Sciences Research Council Press.

Letseka, M. & S. Maile 2008. High University Drop-out Rates: A Threat to South Africa's Future. *Human Sciences Research Council (HSRC) Policy Brief*, March 2008. Pretoria: HSRC Press.

Lewis, K.C. 2004. Instructional Aides: Colleagues or Cultural Brokers? *The School Community Journal* 14, 1: 91-111.

Lombard, K. & M. Grosser 2008. Critical Thinking: Are the Ideals of OBE Failing Us or are we Failing the Ideals of OBE? *South African Journal of Education* 28, 4: 561-579.

Mabelebele, J. 2012. Towards Strengthening HESA-NASDEV Partnerships: Some Tentative Views. Keynote Address, National Association of Student Development Practitioners, Johannesburg, Emperors' Palace, 5 May 2012.

Mahlo, F.D. & M.J. Taole 2011. *Intervention Strategies to Improve Student Performance*. Available at: http://www.sacpo.co.za/downloads/ conference%20papers/Intervention%20Strategies%20To%20improve% 20Student%20Performance.pdf. (Accessed on 9 December 2013.)

Mayo, P. 1995. Critical Literacy and Emancipatory Politics: The Work of Paulo Freire. *International Journal of Educational Development* 15, 4: 363-379.

Mokgalong, N.M. 2009. Input from Vice-Chancellor and Principal Prof. N.M. Mokgalong, University of Limpopo. *Insight: Higher Education South Africa* 1:19-22.

Parkinson, J. *et al*. 2008. Evaluating the Effectiveness of an Academic Literacy Course. *Per Linguam: A Journal for Language Learning* 24, 1: 11-29.

Parry, A. 2012. *Poor Throughput Rates at University: A Teaching or Learning Problem*? Available at: http://www.skillsportal.co.za/page/

education/universities/1406474-Poor-throughput-rates-at-university-a-teaching-or-learning-problem. (Accessed on November 10, 2014.)

Pickworth, G. 2001. Developing an Instrument to Identify MBCHB Students' Approaches to Learning. *South African Journal of Higher Education* 7, 1: 33-40.

Price, M. 2009. Input from Vice-Chancellor Dr. M. Price, University of Cape Town. *Insight: Higher Education South Africa* 1: 26-27.

Ratangee, N. 2007. *Academic Literacy, the PTEEP, and the Prediction of Academic Success.* Unpublished M.A. Thesis, School of Psychology, Faculty of Humanities, University of Witwatersrand, Johannesburg.

Schweizer, B. 2009. Thought & Action: *The NEA Higher Education Journal* Fall 2009: 51-56

Shor, I. 1999. What is Critical Literacy? *The Journal of Pedagogy, Pluralism and Practice* 1, 4: 1-27.

Sosibo, Z. & M. Katiya 2015. Closing the Loop between Access and Success: Early Identification of At-Risk Students and Monitoring as Key Strategies used by a South African University. *International Journal of Educational Sciences* 8, 2: 271-279.

Stambler, L.G. 2013. Critical Literacy: Literacies for the Digital Age to Teach in the K-12 Classroom. Paper Developed for the Pier Institute: Global Youth in the Digital Age, 8-12 July 2013. New Haven, CT, USA: Yale University.

Stephen, D.C., J.C. Welman & W.J. Jordaan 2004. English Language Proficiency as an Indicator of Academic Performance at a Tertiary Institution. *South African Journal of Human Resource Management* 2, 3: 42-53.

Tyobeka, P.T. 2006. An Open Letter to all Primary Schools Principals. Department of Education, Republic of South Africa.

Van Dyk, T. & A. Weideman 2004. Switching Constructs: On the Selection of an Appropriate Blueprint for Academic Literacy Assessment. *SAALT Journal for Language Teaching* 38, 1: 1-13.

Vygotsky, Lev S. 1987. *The Collected Works of L.S. Vygotsky*. New York: Plenum.

Warren, Digby 2003. A Discipline-based Approach to Developing Academic Literacy. In Gosling, David & Vanneta-Marie D'Andrea (eds.): *International Conference on the Scholarship of Teaching and Learning: Proceedings 2001-2002.* London: Educational Development Centre, City

University.
Wilhelm, Jeffrey, Tanya Baker & Julie Dube 2001. *Strategic Reading: Guiding Students to Lifelong Literacy*. New Hampshire, USA: Heinemann.

Zilungile Sosibo
Faculty of Education,
Cape Peninsula University of Technology
SosiboL@cput.ac.za

African Students who Excel in South African Higher Education: Retro(Pro)Spectivity and Co-Regulation of Learning

Nicholas Munro
Michael Anthony Samuel

Abstract
In addition to being more likely to fail and dropout, African students are also less likely to succeed academically, let alone excel while doing so. In a critical move against a dominant deficit, failure, and drop-out discourse that surrounds African students in South African higher education, this paper reports on a study that explored exceptional academic achievement in African students. Specifically, using the data production strategies of auto-photography and photo-elicitation, eight academically exceptional undergraduate African students in a South African university explored the (academic) activities that were associated with their academically exceptional outcomes. Interpretative thematic analyses of the auto-photographical accounts highlighted not only how the participants excelled academically, but also who they were becoming in the process. Data from three of the eight participants is drawn upon in this paper to introduce the notion of retro(pro)spectivity, and to show how co-regulation of learning can be centralised when explaining an exceptional academic achievement trajectory for African students in South African higher education.

Keywords: African students, co-regulation of learning, throughput and exceptional academic achievement

Introduction
A major objective for the post-apartheid South African higher education system has been on concurrently increasing access to the system and on

attending to matters of throughput and success of its enrolled students (Department of Education (DOE) 1997; National Planning Commission 2012; Lewin & Mawoyo 2014). This objective resonates not only with wider international trends in massification of higher education systems, but also the increasing social justice transformation goals of an expanding system (Dawson *et al.* 2013). Specifically, the objective has facilitated the increased access of African[1], Coloured, and Indian[2] students in South African higher education (Council on Higher Education (CHE) 2010), with the proportion of African students enrolled in higher education growing from 49% in 1995 to 68% in 2011. Despite these gains in access, current South African higher education is characterised as a system of low throughput, poor academic achievement, and high levels of student failure (Department of Higher Education and Training (DOHET) 2013). Of most concern are findings that poor academic achievement and failure are more pronounced for African students. In 2011 for example, higher education course success rates[3] were lowest for African students at 73%, and these rates peaked for White students at 83% (CHE 2013b). In explaining the relative disparities in course success rates, the CHE reasons that educational disadvantage and underpreparedness for higher education are 'commonly associated with African students, given the poor quality of schooling experienced in most African communities' (CHE 2013a: 58). Although some students may indeed be educationally disadvantaged and underprepared for higher education, the terms have become conflated with notions of race and academic underachievement, and

[1] In this paper, the term 'African' is used to refer to black African students who are South Africa. This terminology is consistent with that used in current policies and publications from the Department of Higher Education and Training, the Council on Higher Education, and Statistics South Africa. The authors acknowledge that the term 'black' is sometimes used to denote all population groups other than white (Council on Higher Education 2010).

[2] Although the authors of this paper do not necessarily endorse the use of racial categorisation, it is recognised that these categories have utility when conceptualising socio-economic and educational redress and transformation in the South African context.

[3] Course success rates reflect a pass to enrolment ratio for courses in a specific academic year (CHE 2013a).

this has contributed to a deficient positioning of African students as being less likely to excel academically (Smit 2012). Race, educational disadvantage, and educational underpreparedness are potentially problematic, nuanced, and political constructs which feature regularly in higher education transformation discourses.

In this paper, the authors reject a deficit mode of conceptualising African students, which foregrounds an underpreparedness for the demands associated with excelling in higher education (Marshall & Case 2010; Smit 2012). The paper signals a critical turn towards exploring exceptional academic achievement alongside academic failure and drop-out, and a more specific turn towards exploring how African students may negotiate exceptional academic achievement outcomes in higher education. This paper explores the ways in which academically exceptional[4] African students (from relatively disadvantaged and underprepared educational backgrounds) access, succeed, and excel in the South African higher education environment. Importantly, we recognise that not all African students are educationally underprepared or disadvantaged by virtue of their racial classification. However, as identified earlier, patterns of racial educational (under)achievement exist, and notwithstanding the systemic dynamics that contribute to these patterns, this paper provides a perspective on how exceptional academic achievement can be activated and sustained in spite of these patterns.

Evolving Conceptions of Exceptional Academic Achievement: A Shift from Self-regulated Learning to Co-regulated Learning?

Self-regulated learning (SRL) (Bandura 1986; Zimmerman 1989) has been

[4] The term academically exceptional (and exceptional academic achievement) is used in this paper to refer to academic achievement outcomes that are higher than average, and may result in various merit awards. These awards may include module distinctions, certificates of merit for individual modules, Dean's commendation for a semester performance, high credit weighted averages across modules in a semester, and a degree being conferred *cum laude/summa cum laude*).

hailed in recent research on how higher education students can achieve and excel academically (Torenbeek *et al.* 2013; Rosário *et al.* 2015). When students are engaged in the process of SRL, they can be described as *wilfully* directing their thoughts, emotions and behaviours towards the attainment of specific learning outcomes (Schunk & Zimmerman 2008). Therefore, SRL involves a student motivating him/herself by activating and maintaining both intrapsychological (i.e., thoughts and emotions) and inter-psychological (e.g., behaviours) processes. It is the relationships between the intra- and inter-psychological processes that have become central in explaining the path towards exceptional academic achievement in (higher) education. For example, in her study on successful South African dentistry students, McMillan (2010) showed how positive motivation mediated the use of SRL techniques and subsequent academic attainment. If students experience positive internal states or feelings (e.g., high self-efficacy and high outcome expectancy) they are more likely to initiate and maintain a series of persistent learning actions, positive learning outcomes, and subsequent academic achievement outcomes (Nausheen & Richardson 2013). Self-regulation has also been associated with the positive psychological notion of flourishing, which when combined are likely to yield favourable academic achievement outcomes (Van Zyl & Rothmann 2012).

Although SRL involves interpersonal interaction, it relies on the assumption that there is indeed a distinguishable 'self', and that one can '… intentionally make things happen by one's actions' (Bandura 2001: 2). In contrast, monistic world views such as those frequently recognised in African cultures, blur notions of self and culture, and prioritise collective identities and action (Mkhize 2004). Moreover, McCaslin and Hickey (2001) critique the primary purpose of SRL, identifying that it functions to enable self-control, personal freedom and *individual* (academic) achievement. In the current South African higher environment, encouraging SRL in students (i.e., individual goals and individual achievement) could be conceptualised as being incongruent with collective goals of transformation (Munro 2014).

The term 'co-regulated learning' appears to have first been used by McCaslin (1996: 14) to describe the dynamic *relationship* between teacher, student, and opportunity. Positioned with a sociocultural theoretical framework, McCaslin (1996) initially highlighted the role that the abovementioned relationship plays as eventually assisting students to self-regulate, and at the same time to develop an emergent academic identity of

achievement. Co-regulated learning prioritises and enables social and cultural participation, and alludes to 'an evolving integration of self and other through engagement of activities that inform personal meanings' (McCaslin 2009: 137). This perspective on learning brings to the fore questions pertaining to *who* a student is becoming in their academic achievement trajectory, and how this is culturally situated. In effect, a co-regulatory conception of learning signals the primacy of collaborative (and therefore social, cultural, and historical) processes and emergent academic identity in learning activity. Whereas SRL was earlier proposed to enable self-control for the purposes of individual academic achievement, co-regulated learning is proposed to enable self-control, for the purposes of 'socially meaningful activity' (McCaslin & Hickey 2001: 235). Along similar lines, Nell (2014: 82) recently identified that the most important sources of life meaning for South African university students tended to be 'relationships, hope, education, achievement and religion'. It is suggested that a co-regulated learning perspective (as socially meaningful activity) has value in a diverse higher education environment where equity and transformation aims co-occur with those of high academic achievement and success.

Methodology

The data used in this paper was drawn from the qualitative part of the first author's mixed-method doctoral study. The quantitative part of the doctoral study identified how African students were significantly less likely to excel academically when compared to students from other race and socio-economic groups (Munro 2014). In addition to national success indicators, the findings from the quantitative phase of the doctoral study informed the purposive recruitment of academically exceptional African students into the second qualitative part of the study.

Sampling and Data Production Methods

A group of academically exceptional African students nearing completion of their bachelors' degrees at a South African university participated in focus group discussions, an auto-photography exercise, and photo-elicitation interviews with the first author. After ethical clearance to conduct the larger

study was granted by the university Human and Social Sciences Research Ethics Committee, a list of 782 potential undergraduate university scholarship recipients was purposively used to identify academically exceptional African students. Email invites to participate in the study were sent to the 60 academically exceptional African students on the scholarship list, and of these, 18 responded and took part in focus group discussions on the topic of exceptional academic achievement. Of these 18 participants, eight then expressed an interest to continue with the auto-photography and photo-elicitation interview phases of the research study. A data set derived from three participants who produced particularly rich accounts was drawn upon for this paper.

Visual research methods feature in previous sociocultural research (Pearson & Ralph 2007; Van der Riet 2008; O'Brien *et al.* 2012), and have certain theoretical and epistemological roots. Specifically, visual methods (especially Photovoice) can be linked to Paulo Freire's critical and emancipatory education philosophy (Wang & Redwood-Jones 2001), and were therefore identified as congruent with this study's positioning in a transforming higher education environment. In addition, the research participants were identified as being underrepresented within the phenomenon of interest (i.e., exceptional academic achievement), and a methodology that was participant-driven and potentially empowering was therefore deemed suitable. In auto-photography, a research participant takes photographs in response to a research prompt (Noland 2006), and then leads a photo-elicitation interview with the researcher about his/her auto-photography collection (Meo 2010). In this study, participants were provided with digital cameras and prompted to take at least ten photographs that reflected their current academic activity, as well as ten photographs that reflected their historical academic activity. The current and historical focus of the auto-photography prompt was intentional as it facilitated methodological congruency with the sociocultural (and therefore historical) theoretical framework.

Consent to participate in this study was continually negotiated throughout the research process. Moreover, in visual research methods, research participants may sometimes take photographs that reflect other people (i.e., human subjects of a photograph). Following Wang and Redwood-Jones' (2001) guidelines, all research participants were inducted into the ethics of visual research methodologies, and were required to obtain

the written informed consent of any potential human subjects of a photograph prior to taking the photograph. This consent also included a photographic release and reproduction permission clause, allowing the use of the photographs for research dissemination and publication purposes. To protect the identities of the participants who feature in this paper, pseudonyms have been used. In addition, key parts of the photographs used in this paper have been blurred to protect the identities of the subjects of the photographs.

Data Analysis

The data set used for this paper was comprised of transcripts from two 90-minute focus group discussions, 31 photographs, and transcripts from the individual photo-elicitation interviews that the three selected participants engaged in with the first author. A data-driven interpretative thematic analysis (Braun & Clarke 2006) was firstly undertaken. This was then complemented by an analysis driven by overarching theoretical constructs of SRL, socioculturalism, and co-regulated learning. Initial analytic steps involved immersion in the data, this being constituted through the transcription process, organisation of digital photographs in folders within NVIVO, reading and re-reading of transcripts, and setting up and viewing digital versions of the photographs. Coding and inducing themes from the data were assisted via a line-by-line reading of the transcripts, with a concurrent focus on words, parts of words, and extended statements (Chenail 2012). The same principle was applied to the photographs, where photographs were analysed as units, with an awareness of potential sub-units within photographs, and relationships between photographs. Given the sociocultural framing of the study, it was important to ensure that the photographs were analysed within their contexts (Mitchell & de Lange 2011), and that analytical questions were asked around 'what we think they (photographs) show us … but also what they don't (can't) show us' (Spence 1988: 92). Relationships between themes and codes were identified and elaborated, and photographic-infused accounts of the participants were generated by the researchers. Descriptive validity (Maxwell 2002) of the study was enhanced through participant verification and editing (i.e., member checking) of the photographic-infused accounts.

Findings and Discussion

The following findings and discussion section first describes three high achieving African students. In addition to revealing how the students excelled academically through several task-oriented strategies, the descriptions also highlight a concurrent retrospective and prospective orientation – which we came to refer to as *retro(pro)spectivity*. Therefore, in this paper, retro(pro)spectivity refers to a student's capacity to maintain a concurrent retrospective (i.e., past) and prospective (i.e., future) awareness and focus. It is this concurrent retro(pro)spectivity that is theorised to contribute to a student's high academic achievement outcomes. Furthermore, what became as compelling during the data analysis was *who* the students depicted themselves becoming, how this was co-regulated, and how this was located socio-historically. The following section highlights how and why retro(pro)spectivity and co-regulation of learning may be central in an exceptional academic achievement trajectory. Raw data is provided to characterise the nature and dynamics of retro(pro)spectivity and co-regulation of learning, while a theoretical discussion and integration of the data intensifies towards the end of the section.

Sihle - Foundations from the Past and Future Freedoms

At the time of data production, Sihle was a 29-year-old Bachelor of Science

Photograph 1. Awaiting freedom (taken by Sihle, and reproduced with Sihle's permission, and the permission of the subject of the photograph).

student, specialising in Mathematics and Statistics. Although he succeeded in his final school examinations, economic circumstances necessitated that he seek employment directly thereafter. It was only ten years after completing his secondary schooling that Sihle was awarded government funding and a place to study in higher education. Sihle was a resident student at the university where this study took place, and his family members lived in various towns in South Africa. Sihle presented a photograph of his mother (Photograph 1) for discussion at the start of his photo-elicitation interview.

> … this is where she is working (as a domestic worker). So (she is) … just outside. She was waiting for them to actually open up for her and so, when I came, I found her outside. I didn't even go in. So I feel like she is not free, you know? She is not free. This is not what I want for her (Sihle PEI 8: 775). And she has to wait. You can see that (.) that she is begging for (.) she needs this work to survive, you know. I want her to be free. I want her to work if she wants to. But for me, if I finish, I do everything correctly, I want her to stay with me. I want her to be free. I want her to say finally, 'I am happy' (Sihle PEI 8: 805).

Although Photograph 1 prompted discussion around his mother's future 'freedom' as being dependent on his academic achievements ('if I finish, I do everything correctly'), Sihle classified the photograph as part of his historical academic activity. He explained how his mother was 'someone who has been through a lot her entire life' (Sihle PEI 9: 329), this including the death of her partner (Sihle's father) as well as some other difficult life and family circumstances. These circumstances led to Sihle being raised by his paternal grandmother (his 'foundation' (Sihle PEI 8: 409)), who provided him with principles to live his life by. When further discussing the historical 'foundations' in his life, Sihle also identified an academic mentor from his school years. Ironically, the academic mentor was not a school teacher because 'I was teaching myself in matric (.) I didn't have any (school) teacher' (Sihle PEI 8: 120). Sihle's academic mentor apparently taught him 'the foundation of approaching (mathematical) things' (Sihle PEI 8: 965), which became particularly important during his final school year, and which he continued to find useful during his university studies. It was perhaps the roles of his grandmother (his foundation) and self-selected mathematics

mentor who enabled Sihle to overcome the adverse educational circumstances he found himself in.

Sihle's repeated instances to future freedoms (for himself and his mother), past foundations (from his grandmother and mentor), and the academic and personal roles that key people played in Sihle's life reinforced that he was both thoughtful about the future, and acutely aware of what grounded him in the past. Moreover, he seemed especially attuned to the way in which role-players from his past depended on, had influence over, and mediated between his past and future academic achievements. Sihle's academic identity was high-achievement oriented, integrated with conceptions of others, and primarily oriented towards setting his mother free.

Sanele - Hungry for Improvements

When he participated in the study, Sanele was a 22 year-old university resident student in the final year of a four-year Bachelor of Pharmacy degree. He initially started his university studies in a Bachelor of Science degree. Sanele's older sister and younger brother resided in a remote town in South Africa, and his parents had passed away while he was still at school.

> … you know where you are coming from and you are hungry for improvements … from the very first year I knew myself that I was disadvantaged. So, I just changed my mind-set to give myself the positive drive (Sanele PEI 6: 932, 983).

Sanele relayed a particularly resilient account of disadvantage, positioning his disadvantage as part of the force behind his drive and academic achievement. Although he acknowledged the resource constraints that impacted on him and other university students (e.g., limited funds to buy prescribed textbooks), he also identified the ways in which the university study environment surpassed the environment he studied in when at school. For example, he emphasised the number of textbooks available in the university library; how he made use of these textbooks in his studies, and he asserted that 'there is no excuse to say 'I don't have a textbook …that's why my marks are dropping'' (Sanele PEI 6: 919). Two complementary photographs from Sanele's auto-photography collection also reflected a

tension between his past study environment (Photograph 2) and present study environment (Photograph 3).

Photograph 2. (Left) Workplace; Photograph 3. (Right) Daily routine (taken by Sanele, and reproduced with his permission).

Sanele produced a photograph of the space where he used to study when he was at school (i.e. Photograph 2, a photograph of the kitchen table), and of the space where he studies at university (i.e. Photograph 3). In drawing comparisons between the two photographs, Sanele remarked that the space depicted in Photograph 3 is '…advanced, the environment is a little bit enhanced … It's a quiet environment, curtains, it's just the height, the chair height, and everything. It's conducive to studying' (Sanele PEI 6: 845). Sanele did not describe the space where he studied when at school (i.e. Photograph 2) as not conducive to studying. He titled the photograph 'Workplace', and characterised it as a convenient table in the kitchen, the warmest part of the house, and a place where his younger brother and older sister would also work. However, the photograph and space was also a painful reminder of who was missing from the 'Workplace' (i.e., his parents). Sanele described it as '… sort of like salt in a wound' (PEI 6: 466), highlighting how his historical study space was imbued with an experience of parental loss, and the presence of an absence.

In addition to an awareness of the practical role and emotional significance of physical space in his studies, Sanele also identified how important parts of his academic efforts and achievements were mediated through 'socialising'.

> We sometimes tend to discuss things just as a social gathering when we're chilling in the quad. We maybe sometimes raise important points. We're not always taking academically but now and then we talk about those very important academic things of which most people benefit (Sanele FGD 2: 330).

Photograph 4. Socialising (taken by Sanele, and reproduced with the permission of the photograph subjects)

> (Photograph 4) is … us hanging out …. it was just before the lecture started so we just hang out, we were waiting for the lecturer. So, just hang out, talk, get to know each other, break the ice and stuff like that. Break the ice, you know. It's a way of bonding and when we bond we are able to help each like achieve more (Sanele PEI 6: 1043).

In addition to describing how his disadvantage motivated him to work hard in his studies, Sanele also emphasised the co-regulatory role that his peers (and socialising) played in his and their academic achievements. He explained how for him, socialising enabled important academic conversations to take place 'of which most people benefit' (Sanele FGD 2: 330).

Jabu - Past Educational Migration and Future Flight

When she participated in the study, Jabu was 26 years old and studying towards a Bachelor of Social Work degree. After completing her secondary education, Jabu started a Bachelor of Science degree at another South African university, however she did not complete this qualification. She then 'stayed at home' for three years before restarting her higher education studies at the institution where this study took place. Similar to Sihle and Sanele, Jabu was a university resident student, and her family resided in a different town.

Jabu first tabled Photograph 5 for discussion during her interview. Photograph 5 is a meta-photograph (i.e., a present day photograph of a photograph from the past) of Jabu during her Grade 9 year, and she entitled the photograph 'Model C school[5]' because it signalled 'the year my parents decided to take me to a better school' (Jabu PEI 3: 181).

Photograph 5. Model C school (taken by Jabu, and reproduced with her permission)

Technically, 'Model C schools' no longer exist in South Africa; however they continue to be relatively well resourced, largely due to existing infrastructure, higher school fees, and their capacity to attract funding from

[5] During the Apartheid era, Model C schools were reserved for white learners and were better resourced and funded by the government (Cross *et al.* 2010).

parent-governing bodies. In the past two decades, ex-Model C schools have experienced increasing enrolment by African learners whose parents have been able to afford the school fees (Msila 2005). Jabu initially presented her past educational migration positively, highlighting the facilities and services she did not have access to in the 'black[6] schools' (PEI 2: 185) that she attended in her foundation and primary school years.

> … it did a lot for my education. Cos, in black schools … corporal punishment was still coming out … In Model C school, you go there, you don't get hiding. It was nice. You get support if you are struggling. You get tutors. You got extra activities like culture or sport (Jabu PEI 2: 186).

Although Jabu was aware of the educational opportunities that the migration to a former Model C school offered her, she also revealed some of the personal and social difficulties associated with the migration. 'It was a huge transformation … cos I remember when I first went there, I struggled academically, cos I couldn't adjust. Everything seemed so hard' (Jabu PEI 3: 189). She also added that –

> … when you go to a white school … some of the friends back away because you are now in a Model C school, and they start calling you a coconut (black on the outside, but white on the inside) and stuff (Jabu PEI: 248).

Although there was a high interpersonal and emotional cost for Jabu during her past educational migration, she acknowledged 'that when I look back now it was the pathway of having a better life … (that gave me) the strength to go to university twice' (Jabu PEI 3: 250). Although Jabu's first university enrolment led to early drop-out, her more recent university achievements resulted in her being selected to participate in an international study exchange programme. This selection required a passport photograph (see Photograph 6), which Jabu chose to position within her current auto-

[6] Although inconsistent with the official documented terminology used in South African public institutions (e.g., government, education), Jabu and the other research participants denoted their race group as 'black'.

photography collection (i.e., reflective of her current academic activity at university).

Photograph 6. Best student (Taken by Jabu, and reproduced with her permission as owner and subject of the photograph).

Jabu asserted that the passport photograph (and selection for the exchange programme) symbolised 'that the sky is the limit (.) I can do anything I want to do, I can be anything I want to be, and I can go anywhere I want to' (Jabu PEI 3: 396). Jabu's positive outcome expectancy for a future was grounded in a strong personal drive.

> I always push myself. I always compete with myself … I think it also goes with my drive to like always be doing something cos I'm always doing something. I'm always studying. Now I can't get a 50 (percent) when I'm always on my books … I always say this, 'If you're an eagle you don't need to go down and eat with the chickens' (Jabu FGD 3: 469).

Although Jabu was clearly self-regulated as a learner (always pushing and competing with herself), her high academic aspirations and

achievement (flying high like an eagle) were not solitary activities, but seemed to depend on studying with a group of peers.

> And we study together for exams … since first year … I don't know if I can say I owe them, but in a way I do because I do study by myself but when I'm with them … (I) explain some concepts … (and) they will show me other things I haven't noticed … I don't know if its karma or what, but most of the things we do together comes out in exams! (Jabu PEI 3: 653)

Amidst a strong future orientation of what her exceptional academic achievement could yield ('the sky is the limit'), Jabu was also acutely aware of how this future was grounded in her past, and spiritually connected to her peer group's study and co-regulatory processes. Jabu's past educational migration had significant interpersonal and cultural meaning (and loss) for her, and also has larger socio-political meaning. For Jabu, achieving academically involved some cultural alienation and loss, however it also signalled a powerful opportunity for her to engage and excel in an academic struggle. Similar to Sihle and Sanele, her academic struggle was distinctly interpersonal, and involved an integration of self and other as she formed an academic identity.

Cross Case Analyses and Integration

A self-regulatory perspective has featured prominently in explanations of learning and (exceptional) academic achievement in higher education. However, the 'self-dependence' of this perspective may offer limited explanatory potential in contexts where learning opportunities to develop and express self-dependence are not equally distributed. In contrast, McCaslin's (2009) sociocultural model of co-regulation and emergent academic identity highlights the tensions between personal, social, and cultural sources of influence in learning and academic achievement. The model proposes that the abovementioned tensions bring about struggle, opportunity, and negotiation, and that these interpersonal activities are what facilitate learning and learning outcomes. The sociocultural theoretical lenses described in this paper contributed to how the researchers came to articulate the role of retro(pro)spectivity and co-regulation of learning in the exceptional academic achievement trajectories for Sihle, Sanele, and Jabu.

Retro(pro)spectivity

The research participants' own and others' historical and sociocultural struggles (i.e., retrospective awareness) appeared inextricably linked to a concurrent future (prospective) orientation. Sihle integrated his mother's persistent life and employment struggles in his photographic representations, seeing these as his to resolve through his current academic achievements and future career prospects. He foresaw his future as setting his mother free from her historical and present day life circumstances, with the purpose of eventually making her happy. Sanele's past and present study spaces were reflective of a practical environmental structuring strategy, as well as an emotional loss. The photographs of these spaces brought to the fore how a concurrent retrospective and prospective orientation can be useful in understanding the drive towards exceptional academic achievement. Jabu's historical struggle of educational and cultural migration (reflected in the past-present meta-photograph she produced) was indeed her own individual struggle, however, it is also reflective of a larger socio-political struggle of unequal race-based education in South Africa. Importantly, although this inequality is grounded in the past, it persists in the present and future, and is possibly reflective of Jabu's retro(pro)spectivity. Similarly, for Sihle, although the absence of a Mathematics teacher at his school may have been coincidental, it is also reflective of a larger socio-political history and struggle. Unlike Jabu who migrated to a 'Model C School' during her secondary education, Sihle attended a 'black school' until completion, many of which are still beset with poorly qualified mathematics teachers and high levels of teacher absenteeism (Bush *et al.* 2010; Ndimande 2013).

Although there are likely to be a range of other interrelated factors which influenced Sihle's, Sanele's, and Jabu's exceptional academic achievement, they seemed to communicate a retro(pro)spectivity in their interactions with the primary researcher, and this was reiterated across the multiple forms of data they produced (Braun & Clarke 2006).

Co-regulation of Learning

In addition, the central and co-regulatory roles of other people in the research participants' emerging (and exceptional) academic identities were resonant within the data set. From a social cognitive self-regulatory perspective, it is likely that Sihle, Sanele, and Jabu displayed high levels of self-efficacy and

outcome expectancy, which in turn would have driven their academic activities and outcomes. However, these internalised forms of motivation seemed secondary to the interpersonal motivational drivers that became apparent in the participants' historical opportunities to struggle academically and emotionally, and opportunities to negotiate this struggle. Seemingly unable to rely on the teaching and educational resources within his school, Sihle sought out his own academic mentor and co-regulated learning opportunities. This opportunity would have in turn enabled Sihle to negotiate and struggle with foundational mathematical principles. Sanele identified how informal socialising could incorporate an important co-regulatory academic function, while Jabu recognised the opportunity (and cost) of her own educational migration, and the varying co-regulated learning opportunities that this would have afforded her.

The present study facilitated a conceptualisation of exceptional academic achievement in African students, primarily from a sociocultural perspective of co-regulated learning and emergent academic identity. The conceptualisation reminds us how academic exceptionality, learning, and the completion of higher education studies, cannot be separated from who students are, who they were in the past, and who they are in the process of becoming in the future. However, our collective pasts also cannot be categorically deterministic in establishing our successes and failures within the higher education environment. The paper has illustrated how it is possible to be other than what is expected or produced in the higher education environment. Moreover, an academic identity is necessarily shared with and for others from multiple cultural-historical contexts. It is an identity that is in dialogue with the challenges of the past, the immediacy of present academic interactions, and perhaps most importantly with how the potential for future success could re-direct one's life. It is the socially meaningful activity that is rooted in a sociocultural past, present, and future that may help African students excel in South African higher education.

Concluding Remarks

In contrast to prevailing higher education discourses of academic underachievement and conflated notions of race, educational disadvantage, and academic achievement, this paper signals a critical turn towards the exploration of exceptional academic achievement, and specifically to this

level of achievement in African students. The findings and discussion illustrate how exceptional academic achievement can be conceptualised as residing both inside and outside the individual, and located across a non-linear past and future interpersonal activity. Massified higher education environments are likely to benefit from conceptions of (exceptional) academic achievement that extend beyond how individuals excel academically. Insights into who high-achieving students are becoming, and for what purposes, are likely to reflect the kind of socially and culturally transformed spaces that higher education institutions should be becoming. In this way, future research could explore the role of collective and emotional past struggles in current and future academic achievement. At a microanalytic level, an investigation into culture specific forms of co-regulated learning in South African higher education could provide insight into the moment-by-moment processes that become manifest in collaborative learning tasks and exceptional academic achievement outcomes.

Acknowledgements

This study was funded through a University of KwaZulu-Natal Competitive Teaching and Learning Research Grant.

References

Bandura, A. 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. 2001. Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology* 52: 1-26.

Braun, V. &. V. Clarke 2006. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology* 3, 2: 77-101.

Bush, T. *et al.* 2010. Managing Teaching and Learning in South African Schools. *International Journal of Educational Development* 30, 2: 162-168.

Chenail, R.J. 2012. Conducting Qualitative Data Analysis: Reading Line-by-Line, but Analyzing by Meaningful Qualitative Units. *The Qualitative Report* 17, 1: 266-269.

Council on Higher Education 2010. *Higher Education Monitor 9. Access and Throughput in South African Higher Education: Three Case Studies.* Pretoria: CHE.

Council on Higher Education 2013a. *A Proposal for Undergraduate Curriculum Reform in South Africa. The Case for a Flexible Curriculum Structure.* Pretoria: CHE.

Council on Higher Education 2013b. *Vital Stats: Public Higher Education 2011*. Pretoria: CHE.

Cross, M. *et al.* 2010. 'Wits Gives you the Edge': How Students Negotiate the Pressures of Undergraduate Study. In Council on Higher Education (eds.): *Higher Education Monitor 9. Access and Throughput in South African Higher Education: Three Case Studies*. Pretoria: CHE.

Dawson, P., K. Charman & S. Kilpatrick 2013. The New Higher Education Reality: What is an Appropriate Model to Address the Widening Participation Agenda? *Higher Education Research & Development* 32, 5: 706-721.

Department of Education 1997. *Education White Paper 3: A Programme for the Transformation of Higher Education.* Pretoria: DOE.

Department of Higher Education and Training 2013. *White Paper for Post-School Education and Training.* Pretoria: DOHET.

Lewin, T. & M. Mawoyo 2014. *Student Access and Success: Issues and Interventions in South African Universities*. Cape Town: Inyathelo.

Marshall, D. & J.M. Case 2010. Rethinking 'Disadvantage' in Higher Education: A Paradigmatic Case Study Using Narrative Analysis. *Studies in Higher Education* 35, 5: 491-504.

Maxwell, J.A. 2002. Understanding and Validity in Qualitative Research. In Huberman, A.M. & M.B. Miles (eds.): *The Qualitative Researcher's Companion*. London: Sage.

McCaslin, M. 1996. The Problem of Problem Representation: The Summit's Conception of Student. *Educational Researcher* 25, 8: 13-15.

McCaslin, M. 2009. Co-Regulation of Student Motivation and Emergent Identity. *Educational Psychologist* 44, 2: 137-146.

McCaslin, M. & D.T. Hickey 2001. Self-Regulated Learning and Academic Achievement: A Vygotskian View. In Zimmmerman, B.J. & D.H. Schunk (eds.): *Self-Regulated Learning and Academic Achievement. Theoretical Perspectives*. New York, NY: Routledge.

McMillan, W.J. 2010. 'Your Thrust is to Understand' - How Academically Successful Students Learn. *Teaching in Higher Education* 15, 1: 1-13.

Meo, A.I. 2010. Picturing Students' Habitus: The Advantages and Limitations of Photo-Elicitation Interviewing in a Qualitative Study in the City of Buenos Aires. *International Journal of Qualitative Methods* 9, 2: 149-171.

Mitchell, C. & N. de Lange 2011. Data Collections and Building a Democratic Archive: 'No More Pictures without a Context'. In Mitchell, C. (eds.): *Doing Visual Research*. London: Sage.

Mkhize, N. 2004. Sociocultural Approaches to Psychology: Dialogism and African Conceptions of the Self. In Hook, D. (eds.): *Critical Psychology*. Cape Town: UCT Press.

Msila, V. 2005. The Education Exodus: The Flight from Township Schools. *Africa Education Review* 2, 2: 173-188.

Munro, N. 2014. *Exceptional Academic Achievement in South African Higher Education.* Unpublished doctoral dissertation, University of KwaZulu-Natal.

National Planning Commission 2012. *National Development Plan 2030. Our Future: Make it Work*. Pretoria: The Presidency. Republic of South Africa.

Nausheen, M. & P.W. Richardson 2013. The Relationships between the Motivational Beliefs, Course Experiences and Achievement among Postgraduate Students in Pakistan. *Higher Education Research & Development* 32, 4: 603616.

Ndimande, B.S. 2013. From Bantu Education to the Fight for Socially Just Education. *Equity & Excellence in Education* 46, 1: 20-35.

Nell, W. 2014. Sources of Life Meaning among South African University Students. *Journal of Psychology in Africa* 24, 1: 82-91.

Noland, C.M. 2006. Auto-Photography as Research Practice: Identity and Self-Esteem Research. *Journal of Research Practice* 2, 1: 1-19.

O'Brien, M. *et al*. 2012. Cultural-Historical Activity Theory and 'the Visual' in Research: Exploring the Ontological Consequences of the Use of Visual Methods. *International Journal of Research & Method in Education* 35, 3: 251-268

Pearson, S. & S. Ralph 2007. The Identity of Sencos: Insights through Images. *Journal of Research in Special Educational Needs* 7, 1: 36-45.

Rosário, P., *et al.* 2015. Transcultural Analysis of the Effectiveness of a Program to Promote Self-Regulated Learning in Mozambique, Chile, Portugal, and Spain. *Higher Education Research & Development* 34, 1: 1-15.

Schunk, D.H. & B.J. Zimmerman (eds.) 2008. *Motivation and Self-Regulated Learning: Theory, Research and Applications*. New York, NY: Routledge.

Smit, R. 2012. Towards a Clearer Understanding of Student Disadvantage in Higher Education: Problematising Deficit Thinking. *Higher Education Research & Development* 31, 3: 369-380.

Spence, J. 1988. *Putting Myself in the Picture: A Political, Personal and Photographic Autobiography*. Seattle, WA: The Real Comet Press.

Torenbeek, M., E. Jansen & C. Suhre 2013. Predicting Undergraduates' Academic Achievement: The Role of the Curriculum, Time Investment and Self-Regulated Learning. *Studies in Higher Education* 38, 9: 1393-1406.

Van der Riet, M. 2008. Diagramming as Mediational Means: Vygotskian Theory and Participatory Research. *South African Journal of Psychology* 38, 3: 455-465

Van Zyl, L.E. & S. Rothmann 2012. Flourishing of Students in a Tertiary Education Institution in South Africa. *Journal of Psychology in Africa* 22, 4: 593-599

Wang, C.C. & Y.A. Redwood-Jones 2001. Photovoice Ethics: Perspectives from Flint Photovoice. *Health Education & Behavior* 28, 5: 560-572.

Zimmerman, B.J. 1989. A Social Cognitive View of Self-Regulated Academic Learning. *Journal of Educational Psychology* 81, 3: 329-339

Nicholas Munro
School of Applied Human Sciences,
University of KwaZulu-Natal
munron@ukzn.ac.za

Michael Anthony Samuel
School of Education:
Education Studies Cluster
University of KwaZulu-Natal
Samuelm@ukzn.ac.za

The Recognition of 'Digital Technology Refugees' amongst Post Graduate Students in a Higher Education Institution

Simon B. Khoza
Sadhana Manik

Abstract

It is common knowledge that South African public universities have recently been embarking in efforts to increase their postgraduate (PG) enrolment, and ensure PG student throughput and graduation. Whilst it is well known that the student population is diverse, the literature reveals that students' preparedness is an area of concern in the student throughput discourse in higher education. One of the caveats of the students' preparedness discourse lies in the domain of digital technology which has been introduced in higher education. Research is a key component of PG studies and digital technology knowledge and skills are crucial to students' studies. This article is based on the digital technology experiences of postgraduate students undertaking research at a South African university in KwaZulu-Natal (KZN) province. The discussion leans on qualitative case study data which were generated over a period of two years from 2013-2014. Purposive convenience sampling was used in selecting the students. Multiple instruments such as the students' handwritten and email correspondence in addition to their articulations (verbal and digital) were used for data generation. The study concluded that there were ten PG students who were struggling with digital technology from the outset of their postgraduate studies and numerous digital technology challenges persisted throughout their course of study. Some students believed that they were forced to migrate to a digital world without the requisite support: to learn and internalise aspects of digital technology which made them 'digital technology refugees' in a higher education context. This article consequently

recommends the training of students before they use digital technology within the curriculum and an ongoing digital support structure in the higher education institution to ensure that these PG students receive sufficient assistance to progress and meet their academic targets, and ensure their throughput.

Keywords: Digital technology refugees, digital technology

Introduction

Research is part of the core business of higher education institutions and there is a plethora of literature (Churchman & King 2009; Jawitz 2009; Clare & Sivil 2014) that attests to 'how higher education now operates more as a business' with discussions of 'research productivity' (Van Laren & Mudaly 2012:1080) or 'research output and productivity units' (Clare & Sivil 2014:62) being of paramount significance. There has also been the assertion recently that research 'has been prioritised over teaching and there is a demand to increase the quantity of research' (Clare & Sivil 2014:60) which inadvertently means more postgraduate students undertaking research studies. In addition to this emphasis, is the persistent view, that higher education in the South African context is facing 'multiple challenges some of which include a diversity in the student population coupled with different stages of preparedness' (Bozalek, Ng'ambi & Gachago, 2013:420), the 'massification of education' and 'the heightened stress to raise through-put with meagre resource provision (Scott, Yeld & Hendry 2007). These challenges (which have also been reported across the world) draw attention to the view that higher education needs to address some critical discourses currently unfolding in its midst and one of these relates to students' preparedness for achieving success in a qualification wherein they have registered. One of the strands of this theme of student preparedness, leans on technical skills. Several researches have stated that the preparedness of students requires an improvement in what has been termed '21st century skills' (Johnson *et al*, 2011) and 'digital citizenship' (Johnson & Adam 2011). There is no doubt that higher education is currently a costly undertaking and it is vital to identify students who are 'at risk' early in their enrolment (Van der Merwe &

Van der Merwe 2009:284). This will reduce the cost because low student pass rates have a huge effect on an institution's funding (Van Aswegen 2009; Ungerer *et al*. 2013:1530). In respect of postgraduate students, Van Laren & Mudaly (2012:1081) reported that lecturers are 'pressured' to increase the numbers of masters and doctoral students so as to increase in the number of postgraduates. In addition, Van Laren & Mudaly (2012) also point out that higher education institutions prioritise the through-put of masters and doctoral graduates which becomes one of a host of challenges facing lecturers.

Studies on Digital Technology in Higher Education

Today, higher education like all other sectors in the world has been influenced by different types of technologies especially digital technologies. Digital technology (DT) means electronic technology that generates, stores and processes data (Atkinson & Mckay 2007). There are two key important strands of literature for this article on postgraduate students' experiences of digital technology, namely people who are identified as digital technology users and the use of digital technology in higher education.

The Users of Digital Technology

A study undertaken in the early 1990's by Howe and Strauss (1991) found out that age was a decider in the use of digital technology resources. DT was found to be more attractive to younger generation (which includes students) than old aged people. Howe and Strauss (1991) identified differences between several categories of DT users based on age such as Generation X (born between 1961 and 1981) and the Millennial generation (born between 1982 and 2000 as well as after). In line with the discussion on age being a criterion for DT use, Tapscott (1998) referred to digital users as the Net Generation and later Prensky (2001) called them Digital natives implying that they are born in the digital era which predisposes them to learning via digital technologies. There currently exists a plethora of words describing digital technology users. This trend of referring to DT users was extended by Harel-Caperton (2003) who called them 'Clickerati' and Rushkof (2006) used the term 'Screenagers'. Other terms have been generated by scholars in the field

and they include but are not limited to 'Digital resident', 'Google generation' and 'Digital awareness users' (Khoza 2013 & 2014). Ultimately this fixation on terms describing who should be classified as DT users has highlighted the view that there is a tacit belief that the more youthful you are, the more conversant and at ease one is in using digital technologies. Interestingly, postgraduate students range across a host of age groups (from early 20's to late 40's), having entered postgraduate study at various stages in their lives and are not like undergraduate students, easy to box into a youthful age category. Also, these studies have failed to consider the particular contexts of DT users as being immensely significant in impacting on DT use such as being in a rural or developing country or having access to relevant digital technologies or being in a context where particular DT needs are required which would then warrant their learning. There are some exceptions to the influence of development and one such study is by Czerniewicz, Williams, & Brown (2009) on two students from two opposing socio-economic backgrounds (this will be discussed in some detail in the section below).

Digital Technology Use in Higher Education

Literature on Digital technology use in Higher education has centred largely on the types of DTs used in higher education and many of the studies were carried out amongst undergraduate students (see for example Lorencowicz *et al.* 2014) and not postgraduate students. There are very little data on whether and how there should be an integration of DT into modules from the perspective of students. For example, Prensky (2001) conducted a study on the difference between instructors' and students' usage of digital technologies. This study concluded by identifying students as digital natives because they were born in the digital era and needed 'future content' in learning (content that is generated and distributed by digital technology); whereas the lecturers were born before the digital era and identified as digital immigrants who were only familiar with 'legacy content' (content that is generated and distributed by print media). The results from that study suggest that if education institutions are driven by the digital natives' needs (students who are taken for granted as being familiar with DT), they will teach future content but if they are driven by digital immigrants' needs (lecturers who are not born during the digital era and have depended on print), they will teach

legacy content. The assumption here, is of homogenous categories that all students born during the digital era have acquired the same digital knowledge and skills and can use them in the same manner. Interestingly, Czerniewicz, Williams & Brown (2009) conducted a study based on two university students' in use of DT. One of the students was from a rich family with advanced technologies and the other one was from a poor family with only a basic mobile phone without internet access. The one from the rich family used his advanced technologies mostly for entertainment and the one from the poor family used the university internet for educational activities such as learning. This study concluded that both of these students managed to pass their modules without any noticeable differences between the utilization of technologies in learning. Studies that produced similar results were conducted by Kolikant (2010) as well as Lorencowicz *et al.* (2014).

Other studies conducted by Makoe (2012) revealed that all teachers need to be trained on how to use new technologies in order to use them as an integral part of their curriculum. Bozalek, Ng'ambi & Gachago (2013) reported a disturbing finding that there is a gap difference between the technologies which are being utilised by students, by the lecturers and that which is being provided by the higher education institutions. Thus in addition to there being differences amongst students in terms of their DT knowledge and skills and its use, there are also growing differences between the three mentioned essential stakeholders in the learning environment. In their study on emerging technologies and their use in SA HEI's, they targeted specifically what they call 'technology adopters' who were academics and professional staff already using DT and thus excluded from their study by choice, lecturers who were not DT savvy and all students which would have provided a more holistic picture into technology use in that higher education context.

Training teachers to use technology within the curriculum is important because it may help them in developing students' positive attitudes towards the technology. According to Hough and Neuland (2014), training is very important because it helps teachers to be at the forefront of the curriculum. Majid (2014), Hough and Neuland (2013) and Hough and Neuland (2014) revealed that in order to motivate students, one has to use Web 2.0 technology because students enjoy Web 2.0 technologies especially Blog, YouTube, Google Form and Padlet. According to these studies, students use Web 2.0 technologies every day to post their personal information and they are aware of the risks around the use of technology.

This suggests that lecturers or facilitators should first understand the specific technologies that are familiar to their students before they recommend them for use by their students. This may serve to reduce resentment and to increase the success of technology adoption and integration into the curriculum.

Many of the above studies have tried to pave a way which may help institutions to make some decisions on digital technology. What was clearly lacking throughout in these studies, was the voices of particularly postgraduate students in higher education, whose numbers are increasing rapidly in the South African context. Hence, the need for this present study which explored postgraduate students' experiences of using digital technologies in undertaking their research.

Research Purpose and Research Questions

This article explores postgraduate (PG) students' experiences of using digital technology in undertaking their research dissertations at a South African university. It is anticipated that this article will contribute to providing insights into some of the challenges in higher education institutions on postgraduate students' experiences, through-put and drop-out. The research question in the study was 'What are the digital technology experiences of postgraduate students undertaking research?'

The data generation was organised to respond to the following critical questions related to PG students:

What are the digital technology experiences of students undertaking research in this HEI?

Why do students have particular experiences in undertaking research in this HEI?

Research Design and Methodology

This article is based on a study that was located within the interpretive paradigm. Qualitative data were generated over a period of two years from 2013-2014 on postgraduate students in two disciplines: Curriculum and Geography who were undertaking research at a South African university in KwaZulu-Natal (KZN) province. The postgraduate students were undertaking either an honours or masters degree with either a partial dissertation

component or full dissertation. The choice of approach was the result of needing to understand the challenges facing PG students in meeting their own research targets which they had crafted. The unit of analysis was thus PG students who were undertaking research in two programmes: either Geography Education or Curriculum Studies. Holistically, the study sought to unpack the experiences of postgraduate students in respect of the challenges they were facing in completing their research. In researching students' experiences, this study is aligned to what Polzer (2007) explains as comprising of research 'from below', namely gaining insights into understanding the experiences from the participants' perspectives.

Purposive convenience sampling was used to generate the data. Students were given several choices: to write down their experiences of undertaking research, to post their experiences on an online discussion forum or to email their experiences to their lecturer. The data generation methods were varied as the authors did not want to limit participation. These data generation processes were also iterative for example when students posted their experiences online, they were asked for more detailed explanations if they were not clearly enunciated, alternately when students spoke of their experiences during workshop presentations, they were asked to follow through by providing it in writing (email/s note to the supervisor who would follow through with additional personal interactions). Hence students could either respond to questions that were emailed/posted (discussion forum) or given (by hand) to students email their lecturers sharing their experiences when they encountered DT challenges. Multiple sources of data were also used for the purpose of enhancing the authenticity of data and achieving measures of trustworthiness. This article is designed around selected data from all the data sources available that demonstrated postgraduate students' digital technology experiences in respect of constructing their research dissertations. The sample size consisted of ten students in total. All participants were given pseudonyms to protect their identities as ethical research practices as espoused by Rand Afrikaans University (2002) were observed in the study.

In terms of data analysis, this study used framework analysis where the themes were generated from the data and the relevant literature. The findings are presented thematically largely by means of using direct quotations to give value to the voices of PG students and the corresponding discussions to provide 'thick description' (Geertz, 1973).

Findings

Postgraduate students undertaking research at honours or masters level enter with varying levels of digital technology knowledge and skills which are unknown to their lecturers and supervisors because there does not exist a benchmark activity to gauge their digital technology levels prior to/upon registration for postgraduate study. Nevertheless, they are expected to all fulfil several research related endeavours from the beginning of their study through the use of digital technology in meeting the target requirements to pass the programmes (honours or masters). These include the crafting of their dissertations using a computer, the electronic posting of assignments/chapters for marking with a Turnitin software report and regular email and associated other e-communications between the lecturer and students (such as forum or chat room discussion). The postgraduate students freely expressed their experiences with regards to their limited digital technology knowledge and skills and the impact of their experiences on their ability to meet targets and make adequate progress.

Purchasing the Required Equipment and Acquiring 'Start-up' Skills

Interestingly, this study indicated that there are students undertaking postgraduate studies who may not even have access to the necessary equipment like having a computer which is essential for the writing and submission of their work. Personally, they may not have their own computers and have to rely on the university's resources. Frequently, postgraduate students in Education are undertaking their studies part-time, with many being full time teachers and hence using the computer laboratories on a regular basis during the week days may not always be possible. Nobuhle (a masters student) explained her lack of the much needed equipment to undertake her writing and research: *'I didn't have a laptop or the necessary skills. I first had to buy the laptop. I didn't even know how to open it...'*.

Thus it is evident that amongst PG students, there are those who at the commencement of their qualifications do not have the necessary equipment to begin communicating with their supervisors and writing their dissertations, off campus. But there are also students, who like Nobuhle, may have later acquired the equipment after registration for the PG degree (upon realising

that it is a necessity given her study context) but then she lacked adequate digital technology knowledge and skills which subsequently compromised her steady progress across the year.

Meagre Digital Technology (DT) Knowledge and Skills

Both honours and masters students explained how their limited DT knowledge and skills influenced their studies.

Nobuhle who is a teacher (Masters student) hand wrote her challenges in respect of digital technology. She said: *'I don't have formal training on computer skills/literacy. I haven't been exposed to the use of a computer that much. The learners' exam articles are typed out for us by an admin clerk at work. I didn't think that I would need the skills anyway. When we had to make learners' reports on a computer, we had to use a certain programme, I only learnt to use that and I didn't think I should worry about anything else. When I registered for my masters degree in 2014, I felt like I was thrown in the deep end and left there'*.

It was evident that Nobuhle did not have the necessary technology knowledge and skills at the commencement of her studies. Her background reveals that she only sought to acquire skills when she felt that it was necessary for the completion of a task and clearly she did not think that she would need to concern herself with learning any other computer programmes until she registered for the PG degree. Her comment that she was *'in the deep end and left there'* indicates that she felt abandoned when she registered for the masters full thesis option, and that she did not know how to address her digital technology challenges. Her comment also indicates that she was expecting some form of help although she does not expand on where this support should come from.

She explained her attempts to gain the needed DT skills. Nobuhle stated *'Even at the research commons, I had to bother people and ask for assistance. I had to teach myself using my own laptop. I couldn't even send an email…'* Nobuhle's repetition of the words *'didn't'* and *'couldn't'* display her personal lack of the needed equipment (computer) and her inability to achieve what would have been considered to be basic 'start up' computer skills (opening the computer and sending an email). The case study university has provided a postgraduate space for masters and doctoral students but there

is no technical support located at the venue or from this venue to a central system. It is thus apparent that she feels uncomfortable to ask her colleagues (in the postgraduate research room) to assist her, fearing that she is disturbing them.

Common problems expressed by PG students included emailing and the saving of documents. For example, emailing problems were also experienced by Honours student Thandeka who explained that what is considered to be basic emailing was difficult. She stated that she had the following problems in respect of emails: '*Secondly, finding, receiving and sending emails with ….Ive lost emails which were very important to my honours study...*'. Thandeka's emailing challenges encompassed sending, receiving and the retrieval of past emails.

The saving of documents was also problematic for masters' students. For example, Silo (masters student) had to rely on her emails to her supervisor when her laptop was stolen. She failed to save her work in multiple places and had to rely on her submissions to her supervisor to locate some of her work. Silo wrote, *'Hi Dr … I am not coming to the class tomorrow to present and submit my proposal because I had a terrible situation this morning where my laptop was stolen at the back seat of my friend's car in Pinetown. I did not have a copy of my work; please Doc help if you can help me to recover my work as I have been emailing you most of my work and I have been deleting my emails…'* It is thus evident that Silo's proposal submission and presentation were delayed due to her not having multiple copies of her work saved when her laptop was stolen.

But having a computer stolen and documents not saved in multiple places, are not the only reasons that academic targets are not met and Thandeka reported that: *'Thirdly, my laptop caught a virus which deleted some of my important work within my laptop'*. Here it is evident that digital technology is vulnerable when certain digital security provisions are not adhered to by computer users largely because they are unaware of the impact of downloading information from the internet that may have viruses which then compromises the integrity of their computers.

There are also students who may revel in having digital technology introduced at PG level, but a lack of appropriate digital knowledge and skills can lead to students becoming highly emotional as Buda (Honours student) explained *'While I enjoy e-learning tools sometimes I get frustrated if I don't know how to use technology the way I want'*. The level of frustration

experienced can lead to a rejection by students of digital technology in PG studies as Hlongwa (Masters student) demonstrated in his articulation, *'I strongly believe that if we can work with articles and forget about this confusing technology I can cope well with my studies... for now I don't know what I really know or don't know because I am battling with technology... Sometimes we don't get any hand-outs to read and referred to frustrating websites... I miss the time when education was not influenced by technology and enjoying reading our modules from articles not computer screens'*.

Hlongwa's articulations are loaded with negativity for the introduction of DT into the curriculum ('confusing', 'frustrating'). His use of the word *'battling'* draws attention to the idea that his use of digital technology is perceived as a 'fight'. His frustration is compounded by referrals to websites which he sees as 'frustrating'.

But there is an underlying question emerging from the data: whether some of these PG students are feeling highly frustrated because there are insufficient/a lack of adequate technical support when they experience DT problems? Could it be that the technology is being perceived to be negative because students lack the knowledge and skills and there isn't the much needed DT support that they can access at the case study university as some of the students are pointing out?

Lack of Support for University Software Programmes

Several software programmes, like 'endnote' and 'Turnitin' are not only introduced at postgraduate level to students but they may also be mandatory for student use in certain programme offerings and failure to master their use has negative repercussions for the progress and through-put of postgraduate students.

Turnitin is well known as a software program for its provision of a similarity index and it's therefore used in detecting levels of plagiarism amongst PG students undertaking research. However, it appears that students' experiences with the software illuminated issues of a lack of academic and technical support for problems that they were experiencing with its introduction and use which has negative repercussions for student through-put. A stark example of this is evident from Ngwane (Honours) who explained how she failed as a result of the lack of support, '*I am disappointed*

because I failed to correct similarities in assignment one as indicated by TURNITIN and then the lecturer did not mark my assignment one. So I could not submit any assignment to TURNITIN because all my submissions had more than 25% similarities even after trying to correct them and I could not get any support even from the lecturer who also referred me to other lecturers or technicians to help as she had a problem with the system as well. I unfairly failed the module because we did not have support in using this system properly as we were using it for the first time'.

Buda questioned the forced use of particular tools and programmes as part of the curriculum: *'I do not understand why we are forced to use online discussion forum and Turnitin'*. In contrast there are students who enjoyed the use of certain tools such as the discussion forum and found value in its use, but again were 'afraid' of other programs. An example of this is evident in Gala's (Honours) comments when he stated *'I was happy because we did not use intimidating technology like chat-room that needs speed typing because I am slow in typing and in reading English words although I have started to enjoy the discussion forum... But at first I was scared of sending my work to the discussion forum thinking that my colleagues were going to laugh at my work. Fortunately they did the opposite because they were all supportive and only have constructive criticisms that are always encouraging which help me to understand myself and my work in a new way'*.

It is evident from Gala's comments that he may not initially have enjoyed digital tools but he has warmed up to the use of the discussion forum. English is his second language (as with many PG other students) which is understandable as the institution is located in KwaZulu-Natal, with Zulu as the most frequently used language and this negatively impacts on his use of particular digital tools using the medium of English. Interestingly, support and critique from his colleagues have assisted him to grow and accept the new technology.

There are times when despite technical support being afforded, students come to a realisation that they haven't achieved success although they have devoted long periods of time. Dino (Honours student) commented *'I feel bad that after battling with citations and references I was forced by my lecturer to consult the university librarians to train me on EndNote but EndNote has many mistakes as well and does not solve all my problems after spending hours on it'*. Once again it is evident that students use negative

terms to express their experiences with DT when technical support is lacking, with Dino (similar to Hlongwa) referring to his use of DT as a '*battle*'.

Multiple Consecutive DT Challenges Stresses Students

Ultimately, students' constant negative experiences with digital technology (given their lack of DT knowledge and skills) and largely without the requisite support results in them feeling stressed, having their confidence wane, not meeting their academic targets/achieving success and contemplating drop-out from their PG studies.

Winnie (honours student) went into despair when she lost her analysis chapter, which she hadn't properly saved on her computer. She stated *'I have never been so stressed in my life. I had to restart my whole chapter 4 (analysis) which took me longer than I had (first) done it'*.

Multiple stresses also had an impact on Taniel who is undertaking a masters-part dissertation. She only responded two months after her previous email to her supervisor and she explained her experiences, *'so sorry for taking so long to reply but faced a few challenges…I have conducted all my interviews and transcribed one but my computer crashed and every file was deleted. Computer store will check if they able to restore files but waiting to get paid as it's really expensive and no guarantee'*. At the construction of this article Taniel had still not responded to several emails (in a three month period) attempting to elicit some response from her on whether she was successful or not in retrieving the data. It can be assumed that she has dropped out from PG study despite having completed all her modules and only having her part dissertation to complete as the final aspect for achieving her masters qualification.

Nobuhle's experiences across the first year of her PG study has been an uphill journey as chronicled early in this section on the findings, which almost culminated in her dropping out of PG study. Other experiences that she explained at the commencement of her study in February 2014 included: *'Im not sure whether Im coming or going,..'*. Later in the proposal stage in March 2014, she experienced plural challenges ranging from: '*the ... problem is the literature…another problem is the student card, cant access research commons* [postgraduate students' computer laboratory], *the gentleman tried to solve the problem but still not sorted'*. Seven months later, she was still

experiencing DT challenges and wrote, *'I don't know if there's something wrong or just me being incapable'* (18 October 2014). Later as she sought help, she commented, '*It has been a very difficult experience which made me feel incompetent. It also made me think of ceasing my studies'*.

Again the negativity in her comments is apparent as is her poor self-concept which is evident in her view of herself as '*incompetent*' because she has experienced several DT challenges in her study.

Discussion

The findings from this study reveal that there are PG students who cannot be classified as belonging to the 'net generation' (and other similar concepts used to describe students *au fait* with digital technology) because these students are not at ease with the integration of digital technology into the curriculum. DT Integration into the curriculum is also challenging as the concept of integration suggests 'ease' and 'facilitation' which is absent (according to these students' experiences) since there is the absence of teachers' knowledge of particular software which is part of the curriculum which then creates challenges for the students when coupled with a lack of technical campus based support. In fact, this sample of PG students are digital technology refugees: these students feel forced to imbibe and use digital technology when they have neither the knowledge nor the skills available to assist them to migrate progressively to meeting their academic targets for successful PG research at university.

PG Students as 'Digital Technology Refugees'

This sampled group of PG students articulated their lack of digital knowledge and skills which negatively impacted on their self-concept and their ability to migrate easily to digital technology. This hinders their progress in the PG programme. This finding of such students suggests an opposite of the evidence presented by scholars who have claimed that students belong to the Millennial generation (Howe & Strauss 1991), Net Generation (Tapscott 1998), are Digital natives (Prensky 2001), Clickerati (Harel-Caperton 2003), Screenagers (Rushkof 2006) etc. because the majority of participating students were younger than thirty years (though of different races and

gender). This further suggests that the biographical constructs of age, gender or race were not distinguishing factors in this sample of PG students when they were expressing their negligible DT knowledge and skills. Interestingly they were all not averse to DT and Gala explained that one has to use digital technologies for a longer period in order to enjoy them.

It was apparent from students' articulations that they were not migrating to DT because they wanted to but rather because they felt impelled to by the programme requirements of PG study. They questioned the use of digital tools and software programmes, largely due to the lack of DT support and bemoaned their multiple negative experiences which stressed them, sometimes leading to their thoughts of drop-out from PG study. They thus cannot be termed 'digital immigrants' because they are a specific cohort of migrants, who feel 'forced to move' to the digital technology world to ensure their survival in a programme. This is evident in their use of words such as 'intimidating, forced, battling' to name a few as descriptions of their experiences with DT use. In migration terminology when a person feels forced to flee to another location as a result of particular circumstances, that is when such a person does not willingly move but feels coerced to do so, he/she is termed a 'refugee'. Refugees have 'a well -founded fear' (Mpedi, Smit & Nyeti 2011:01) and the PG students who were sampled in this study feared failure in their PG studies and not meeting their academic targets due to their lack of DT knowledge and skills and this propelled them into moving to try to embrace and imbibe the necessary DT in order to progress in their studies.

These students are not comfortable in their migration to digital technology mostly due to a lack of technical and academic support in the DT domain when they experience problems. The findings above suggest that students are struggling as a result of limited or the lack of an available support structure for their digital technology woes. Scholars claim that students get motivated and effectively use technologies in their studies if it was properly introduced to them by their facilitators with an effective support system (Jones & Shao 2011; Kolikant 2010; Lorencowicz *et al.* 2014). In this study, there was evidence that the lecturers and the technical support system was lacking in providing assistance to them. Refugees in any country are afforded the services of the host country as deemed by a country's laws and hence this group of 'digital technology refugees' need to be been able to obtain the requisite effective technical support as a service provided to them

for their easy DT integration. In addition, while the lack of a support structure is perceived by most of the students as a negative factor, it can be positive in catapulting students to transform and to start reflecting on their knowledge and skills by identifying specific issues/factors that need to be addressed in order to capacitate themselves. An example of this was evident with Nobuhle and her actively empowering herself. According to Mezirow (1991) the transformation process is good because it promotes deeper learning.

Some of the elements that 'digital technology refugees' found challenging included the activation of student cards, understanding basic computer start –up skills like emailing, saving and the use of an anti-virus. Others related to how the key digital tools and software packages which are mandatory to PG research such as TURNITIN and EndNote, work. This translates into the needs of these PG students so that they can be motivated to continue with their studies and achieve PG success. This indicates that students were challenged by technology in education (TIE) (Percival & Ellington 1988) also known as hard-ware (HW) and soft-ware (SW) (Khoza 2013). Technology in education (hard-ware with soft-ware) is beneficial if users have acquired proper training because it assists in their motivation which is the most important ingredient for successful ICT integration in education, according to Copriady (2014).

Conclusion and Recommendation

In a higher education environment that is foregrounding the 'industrialization of research' (Clare & Sivil 2014:63) with talk of increasing postgraduate through-put and student success, addressing the digital needs of postgraduate students, who may be perceiving themselves as being digital technology deficient, is imperative. The finding of PG students who are digital technology refugees is key to understanding the challenges not only that they as PG students are experiencing but also the challenges facing higher education in South Africa in terms of through-put and drop-out. Australia has long realized that higher education has to again focus on the mentorship and preparation of students for life in a world where digital and emergent technology can be institutional barriers (Johnson 2012) and we need to take a lesson from here for future planning initiatives in PG studies in Higher education in South Africa.

References

Amory, A. 2010. Education Technology and Hidden Ideological Contradictions. *Educational Technology & Society.* 13, 1: 69-79.

Atkinson, R.D. & A.S. Mckay 2007. *Digital Prosperity: Under-standing the Economic Benefits of the Information Technology Revolution*. Washington DC: ITIF.

Amundsen, C. & L. McAlpine 2009. 'Learning Supervision': Trial by Fire. *Innovations in Education and Teaching International* 46, 3: 331-342.

Bozalek, V., D. Ng'ambi & D. Gachago 2013. Transforming Teaching with Emerging Technologies: Implications for Higher Education Institutions. *South African Journal of Higher Education* 27(2):419-436.

Clare, J. & R. Sivil 2014. Autonomy Lost: The Bureacratisation of South African Higher Education. *South African Journal of Higher Education* 28,1: 60-71.

Copriady, J. 2014. Self-Motivation as a Mediator for Teachers' Readiness in Applying ICT in Teaching and Learning. *TOJET: The Turkish Online Journal of Educational Technology* 13, 4: 115-123.

Czerniewicz, L., K. Williams & C. Brown 2009. Students Make a Plan: Understanding Student Agency in Constraining Conditions. *ALT-J. The Association for Learning Technology Journal* 17, 2:75-88.

Gatfield, T. 2005. An Investigation into PhD Supervisory Management Styles: Development of a Dynamic Conceptual Model and its Managerial Implications. *Journal of Higher Education Policy and Management* 27, 3: 311-325

Geertz, C. 1973. Toward an Interpretative Theory of Culture. In *The Interpretation of Cultures*. New York: Basic Books.

Harel-Caperton, I. 2003. Clickerati Kids: Who are they? Available at: http://www.mamamedia.com/areas/grownups/new/21_learning/main.html (Accessed on 14 October 2014.)

Hough, J. & E. Neuland 2013. Web 2.0 Usage in Higher Education in South Africa. *South African Journal of Higher Education* 27, 3: 590-606.

Hough, J. & E. Neuland 2014. Strategic Management and the Use of Information and Communication Technologies by Selected South African and American Students. *South African Journal of Higher Education* 28, 2: 455-465.

Howe, N. & W. Strauss 1991. *Generations: The History of America's Future*.

New York: Quill.

Jones, C. & B. Shao 2011. *The Next Generation and Digital Natives: Implications for Higher Education*. New York: Higher Education Academy.

Khoza, S.B. 2012. Who Helps an Online Facilitator to Learn with Students in a Day? *Mevlana International Journal of Education* 2,2:75-84.

Khoza, S.B. 2013. Can they Change from being Digital Immigrants to Digital Natives? *Progressio* 35,1:54-71.

Khoza, S.B. 2014. Is Chemistry Everything to Engineering Students? Let their Experiences Talk. *South African Journal of Higher Education 28*,2:501-513.

Kolikant, Y.B. 2010. Digital Natives, Better Learners? Students' Beliefs about How the Internet Influenced their Ability to Learn. *Computers in Human Behavior* 26, 2010:1384–1391.

Lorencowicz, E. *et al*. 2014. Application of ICT by Students at Selected Universities in Poland. *TOJET: The Turkish Online Journal of Educational Technology* 13, 4:1-11.

Majid, N.A.A. 2014. Integration of Web 2.0 Tools in Learning a Programming Course. *TOJET: The Turkish Online Journal of Educational Technology* 13, 4: 88-94.

Makoe, M. 2012. Teaching Digital Natives: Identifying Competencies for Mobile Learning Facilitators in Distance Education. *South African Journal of Higher Education* 26, 1: 91-104.

Mezirow, J. 1991. *Transformative Dimensions of Adult Learning*. San Francisco: Jossey-Bass Publishers.

Nyenti, M., M. du Plessis & L.A. Apon 2011. *Access to Social Services for Non-citizens and the Portability of Social Benefits within the Southern African Development Community.* Bloemfontein: Sun Press.

Ozerbas, M.A. & U. Canan 2014. Vocational and Technical Education from the Eyes of an Instructor. *Mevlana International Journal of Education (MIJE)* 4, 2: 12-26.

Percival, F. & H. Ellington 1988. *A Handbook of Educational Technology.* 2nd Edition. London: Kogen Page.

Polzer, T. 2007. Adapting to Changing Legal Frameworks: Mozambican Refugees in South Africa. *Internal Journal of Refugee Law* 19: 22-50.

Prensky, M. 2001. Digital Natives, Digital Immigrants. *On the Horizon* 9, 5: 1–6.

Rand Afrikaans University (RAU) 2002. *Guideline on Academics Ethics.* Johannesburg: RAU.

Rushkof, D. 2006. *Screenagers: Lessons in Chaos from Digital Kids*. Incorporated: Hampton Press.

Scott, I., N. Yeld & J. Hendry 2007. A Case for Improving Teaching and Learning in South African Higher Education. Higher Education Monitor 6: iii-v. Available at: http://www.che.ac.za/documents/d000 155/HE_ Monitor_6_ ITLSOct2007. (Accessed on 1 November 2014.)

Singhal, A. & E.M. Rogers 1999. *Entertainment-Education: A Communication Strategy for Social Change*. New Jersey: Lawrence Erlbaum Associate Publishers.

Srichanyachon, N. 2014. E.F.L Learners' Perceptions of using LMS. *TOJET: The Turkish Online Journal of Educational Technology* 13,4:30-35.

Tapscott, D. 1998. *Growing up Digital: The Rise of the Next Generation*. New York: McGraw-Hill.

Ungerer, M. *et al*. 2013. The Importance of the Changing Demographic Profile on the Success of Postgraduate Accounting Students. *South African Journal of Higher Education* 27,6:1529-1550.

Van Aswegen A. 2009. University Subsidies and UNISA. Available at: http://www.unisa.ac.za/Default.asp?Cmd=ViewcontentandcontentID=11 979. (Accessed on 02 November 2014.)

Van der Merwe, C. & S. Van der Merwe 2009. Student Success: Data Mining Measures what Matters. *Journal for New Generation Sciences* 7,2:284-302.

Simon. B. Khoza
Curriculum Studies & Educational Technology,
School of Education, University of KwaZulu-Natal
khozas@ukzn.ac.za

Sadhana Manik
Social Sciences Cluster, School of Education
University of KwaZulu-Natal
manik@ukzn.ac.za

Crossing Over to Education for Ph.D. Study: Liminality and Threshold Crossing

Suriamurthee Maistry

Abstract

A doctoral degree is increasingly a required qualification for university teaching in South Africa. Having a high percentage of academic staff with PhDs is likely to raise the profile of an institution in relation to delivery on its teaching and research agendas and in its positioning on the rankings tables. Hitherto, the doctoral requirement for teaching in higher education was less stringently observed in disciplines that serviced certain professions such as accounting, law and some of the health professions. Mid-and late-career academics in such disciplines, under pressure now to complete a PhD, often elect not to pursue discipline-focused PhDs, but instead to research aspects of their teaching practice, opting for a PhD in Education. These cross-over students experience educational research for the first time at PhD level. The critical issue that this paper addresses is how students with minimal or no formal qualification in education or with limited formal exposure to educational theory and methods negotiate their experience at PhD. Drawing on the tenets of self-study methodology I reflect critically on my own practice as PhD supervisor. I analyse what I do as a supervisor when I attempt to induct novice education students into doctorate-level study in ways that will, hopefully, improve their PhD experience. The paper highlights some of the special challenges which novice education PhD students encounter in making the cross-over to Education from their specialist home disciplines. Insights are offered for supervision practice as it relates to ways in which students transcend conceptual thresholds and negotiate liminality.

Keywords: doctoral degree, research, supervision, liminality

Introduction

One of the listed strategic goals of the University of KwaZulu-Natal (UKZN) is to be a research-led institution. One means to realise this goal, arguably, is to increase the percentage of academic staff who have a doctoral qualification – an objective which is now prioritised as key performance area for all levels of management, from vice-chancellor to cluster leaders. The message to academics without a PhD is clear: PhD completion and research production is as important as teaching. While the institution has not instituted formal punitive sanctions against individuals who have not registered for PhD study, subtle, (and sometimes not so subtle) warnings are regularly articulated in one or another of the various forums at the university. This drive for PhD completion and research production is widely recognised as a manifestation of the globalising and neoliberal tendencies that increasingly shape the strategic direction of universities (Brew & Lucas 2009; Shore 2010). In this schema, macro-level (institutional) factors and policy make it obligatory for university academics to develop identities as scholars and researchers, hemming them in through often stifling contractual protocols for performance, accountability and surveillance (Maistry 2012). There are endless ramifications to this state of affairs, but my particular concern in this paper is the pressure on university academics to raise their level of qualifications.

One consequence in recent years has been an increase in the number of academics from traditional disciplines at UKZN who elect to pursue a PhD study in the specific discipline of education (henceforth referred to as 'cross-over' students). This in turn has created multiple challenges for the School of Education, most particularly in its capacity to effectively service such students. Enhancement of institutional research profile cannot happen unless suitably qualified and experienced academic personnel are already in place who are equipped to deliver theoretically grounded research supervision (Abbidin *et al.* 2009). The 2010 report of the Academy of Science of South Africa warns that high attrition and low throughput rates in postgraduate studies in South Africa are directly related to the level of competence of supervisors. Supervision of students who cross over into education for the first time at PhD level certainly presents challenges both for the PhD supervisors (whose experience may hitherto have been confined to supervising traditional 'home-grown' education students) and for the cross-

over students. Not that academic border crossing is a new phenomenon: Becher & Trowler (2001) argue that fundamental geomorphic changes in higher education have altered the relationship between 'academic tribes' (academic cultures) and 'academic territories' (disciplinary knowledge), with increasingly frequent boundary-crossing across previously impermeable borders. Academics who cross over from traditional disciplines to education to undertake PhD studies signal their new vested interests. It is thus important to understand the particular intentionality of doctoral students so as to better respond to their needs (Van Schalkwyk 2014).

Supervising the disciplinary novice education-research candidate for a PhD who is embarking on this disciplinary transition calls for a distinct shift in what is more usually required of the postgraduate supervisor. Manathunga & Gozee caution that the changing nature of the higher education context means that the assumption of an ''always/already' autonomous student and effective supervisor' can no longer be taken for granted (2007: 309). Supervision thus becomes a matter of managing the tension between the instrumentalist dimension (helping students acquire the qualification needed for tenure) and the affective dimension (nurturing what Wisker (2012: 6) refers to as the 'self-development, academic identity, self-worth and growth' of the student). Van Schalkwyk cautions that doctoral studies must be seen as a complex investment that is likely to serve multiple agendas. Similarly, Lee (2008) argues that while a functional approach to postgraduate supervision has value it is also important for the supervision to incorporate a conceptual approach that involves enculturation into a disciplinary community, critical thinking, and emancipation through self-development

Bitzer & Albertyn (2011) point out that, with the unprecedented increase in postgraduate enrolments in South Africa, students embarking on senior research degrees now come with a wide diversity of undergraduate experience, and also with widely varying levels of preparedness for the task. In these circumstances, the authors advocate a shift to alternative models of supervision from the traditional Oxford model of one-on-one supervision – more akin to individualised apprenticeship (see Wisker *et al.* 2007). Similarly, Grant (2014) argues that effective supervision of students with diverse needs necessarily requires a wider research supervision support base: a shift from traditional supervision practice to supervision within a scholarly community of practice. This implies what Clegg (2014) refers to as multiple

knowledge practices at work in doctoral education, coupled with a fresh conceptualisation of doctoral education as pedagogy – going beyond a narrow, technicist understanding of research in the direction of a more holistic understanding and supervising of postgraduate students. Thus conceived, doctoral studies are to be envisaged as an affective practice, a layering of affect across doctoral writing, given the precariousness of the doctoral writing enterprise (Burford 2014). To this end, Wisker *et al.* (2007) support the idea of holistic, community-of-practice approaches to supervision in which guardian supervisors work with appointed supervisors in postgraduate cohort groups – a strategy more likely to resonate with the special needs of novice education-research students for whom isolation and alienation may be defining factors, even when student and supervisor are both employed at the same institution (as is the case with novice PhD education students at UKZN). There is thus a need for an approach that is very tightly focused on the tenets of thesis writing in education (Larcombe *et al.* 2007) – an area which, I suggest, would strongly repay further exploration and research at my own institution (UKZN). An area worth particular investigation is how thesis writing in the sciences or in commerce disciplines differs from thesis writing in education.

Supervising the Novice Education-research Student at PhD Level: A Narrative Vignette

Like many academics, my early experience of postgraduate supervision was with Master's-level students in education. While no formal policy existed on whether a PhD qualification gave one an automatic licence to supervise PhD students at UKZN, an unwritten principle guiding the allocation of supervisors for PhD students in the School of Education was that to earn the right to supervise PhD candidates one first had to show competence through successful graduation of Master's candidates. Having earned the 'right of passage' (De Beer & Mason 2009) in 2008, I decided to join the School of Education's PhD cohort supervision programme as an 'apprentice' supervisor to senior academics, two of whom were founder members of the PhD cohort model. My first successful PhD supervision (student graduated) was a co-supervision with one of these senior colleagues. I remained in the PhD cohort programme for two consecutive three-year cycles up until 2013. I

found the programme to be a rich, fertile learning space for research supervision. I also soon discovered that supervision is poorly understood as a dimension of pedagogy – an impression corroborated by Grant, who characterises it is 'a complex and unstable process, one filled with pleasures and risks' (2003: 175).

As the only academic in the Faculty of Education with a PhD in economic education at that time, and with a background in commerce (Economics, Accounting and Business Management), I found that potential Master's and PhD students having *any* link, however remote, with commerce education were directed to me as possible supervisor. Of significance for this paper was that the pressure on academics working in commerce departments to register for PhD study produced a sudden surge in Education PhD registrations in the broad field of commerce education by candidates both from UKZN and from other tertiary institutions in South Africa and abroad. In the period from 2009 to 2014, 15 students registered for a PhD in various aspects of commerce education. Thirteen of these had a Master's qualification in disciplines *other than* education. Another significant push factor has been local UKZN performance and promotion imperatives in terms of which individual academic staff members must exhibit high-level pedagogic competence, to be reflected in elaborately maintained teaching portfolios that include a relatively sophisticated account of one's philosophy of teaching, coupled with strong theoretical arguments for the pedagogic choices one makes as lecturer. In addition, expanded access and the enrolment of so-called 'non-traditional' students in post-apartheid South Africa has forced higher education institutions to re-consider who their students actually are (Cross *et al.* 2009); increasingly pragmatic responses are pressured by the need to improve retention and throughput rates. With university academics seeking ways to improve higher-education teaching in the light of new demands on their pedagogical expertise, a developing scholarship of teaching has thus led a number of traditional discipline experts to undertake formal PhD educational research projects.

The question then, is how do students without education-specific formal qualifications, or with limited formal exposure to educational theory and methods, negotiate their experience in education-specific research?

A Methodological Note

In venturing on a rigorous and systematic reflection on my own practice as a PhD supervisor, hoping thereby to enhance my research students' experience of the student-supervisor enterprise, I propose to invoke the tenets of 'self-study' (see Kosnick *et al.* 2006; LaBoskey 2004; Lassonde *et al.* 2009) as criteria for self-assessment, for taking the measure of the critical supervision spaces that present themselves in the research supervision enterprise. Although the concept of self-study, as field of research and as a methodological approach, remains for now at an embryonic stage and needs therefore to be regarded with caution, I nonetheless see in it a potentially liberating opportunity for a creative self-problematision – or 'reframing' (Lassonde, Galman & Kosnik 2009:5) – of my practice in the interests of student learning. In particular, I subscribe to the self-study tenet that the self is intimately and intricately implicated both in the research process and in educational practice, signalling the perspectives of 'the self in teaching', 'the self as teacher' and 'the self as researcher of my teaching' (*ibid.*) as primary perspectives for self-examination. I put special emphasis on the self-study notion of making the 'experience of the teacher educators a resource for research' (Feldman 2009:37). Data for self-study research can be generated from a variety of sources, including curriculum documents, student reflections, interview transcripts and personal reflections; for this paper, I draw on thoughts captured in a reflective journal in which I document my experiences with my PhD students, recording critical incidents that may occur from time to time in the supervision enterprise as the student and I engage with the research learning agenda.

A particularly appealing aspect of self-study research is the way it can spur the development of a personal and constantly evolving pedagogical theory – consonant, in this respect, with Deleuze & Guattari's (1987) notion of rhizomatic theorising which will potentially disrupt and discourage thinking that defaults to existing pedagogical canons.

I now move on to consider some of the key issues that my students and I experience as we negotiate this unfamiliar territory.

Liminality and Conceptual Threshold Crossing

Liminality is a concept that was coined by anthropologist Arnold van Gennep

and later developed and given prominence in the literature by Victor Turner. Derived from the Latin word *limen* (threshold), the concept is indicative of a period of uncertain transition, a process of temporarily removing limits – a phase in which a person is likely to experience anxiety and conflict and depleted self-esteem as they come to terms with the new competences they are expected to master (Szakolczai 2009). Individuals in the state of liminality endure a painful separation from their existing identity; as they negotiate this rite of passage, they are likely to show obedience and humility and simply fall in line with the expected new conduct and behaviour. During this phase, individuals are likely to engage with concepts and new issues superficially, mimicking expected behaviour – their understandings remaining incomplete or partial, causing discomfort and emotional trauma (Land *et al.* 2010).

For cross-over students, liminality is a lived reality. All my new PhD students that crossed over into education experienced the ambiguity and uncertainty which liminality entails, and multiple issues are at play for both me (the supervisor) and my students during this period. As a relatively novice (or emerging) supervisor, I found myself having to deal with my own insecurities about my confidence and competence to supervise at PhD level: in effect, experiencing my own liminality. To compound the supervision challenge, I had no experience of supervising (or co-supervising) cross-over students. My cross-over students comprised experienced lecturers from professional commerce disciplines (including chartered accountants), some of whom were in higher-ranked posts than mine. While I welcomed the opportunity and affirmation that came with these colleagues seeking me out as supervisor, I had not fully comprehended the risks and challenges that would accompany this high-level intellectual contract. As supervisor to individuals whom I considered to be quite powerful and accomplished in their disciplinary fields, I felt the need to project (or even just mimic) a competent and confident demeanour. I was fortunate in having worked concurrently with a range of experienced supervisors who supported me in multiple ways (in particular through the School of Education's PhD cohort programme) to make the transition to a higher level of research supervision competence. My learning curve continues indeed to remain fairly steep, since each new cross-over student that I take on presents with a fresh set of challenges and opportunities for further refinement of my craft as supervisor. I must emphasise that a meta-cognitive awareness of the liminality that cross-

over students are likely to experience did not come to me immediately; it was only after carefully observing and reflecting on what my students said and did that I began to develop a sharper sensitivity to what my students had been experiencing. I am now more aware of the way my own insecurities relate to my shortcomings in knowledge and experience of supervising this type of student, more conscious that I need to resist any empty desire to appear competent and confident. As a novice supervisor of cross-over students, I tended to come on too strongly and aggressively in initial supervisory sessions, often 'over-speaking' about issues and concepts and over-elaborating on the high cognitive competences expected at PhD level, much of which was foreign to my novice cross-over students. I gave far too little credit to the existing knowledge base of these high-calibre students, belabouring instead the 'enormous' gaps in their knowledge of educational research. I now have to acknowledge that much of this positioning was done in an attempt to assert myself and win student confidence in my ability. The learning point I had then to reach was that while establishing student confidence in one's ability as supervisor is important, it should not be done in ways that construct students in terms of deficit. Ongoing self-reflection on my supervision practice has brought a deepened appreciation of the need to scaffold cross-over students in their transition to educational research.

A salutary instance that radically altered my approach to supervising cross-over students occurred when my very first cross-over student was unsuccessful in the oral defence of her PhD proposal before a sub-committee of the School Higher Degrees Committee. This was indeed a most traumatic time for me and for my student. Subsequent reappraisal brought me to see that I had misdiagnosed and misjudged the student's fundamental inclination. I had enthusiastically helped the student craft a study that was located in the critical paradigm and had exposed her to the relevant literature. However, while the student was able to read and summarise the gist of the ontological, epistemological and methodological principles applicable to this paradigmatic orientation, the examining panel's assessment from her oral presentation and the subsequent question and answer session was that her understanding of the tenets and discourse of the chosen paradigm went no further than superficial mimicry, not congruent with who she really was. There was a happy conclusion to the story in that she did subsequently make a successful defence of her proposal and complete her PhD study in regulation time, but at that initial stage I experienced the full spectrum of

anxiety, depleted self-esteem, identity crisis and dismay that I know my student also endured.

A useful pointer to the significance of this incident is provided by Gina Wisker (2012: 9) in her discussion of 'conceptual threshold crossing', where she identifies 'core threshold' concepts that educational research students need to acquire in order to conduct advanced educational research. In this context, 'conceptual thresholds' are 'crucial moments in the research journey, … ways of identifying when students start to work conceptually, critically and creatively, and so are more able to produce breakthrough thinking' (Wisker 2012:9). For PhD students whose academic home and Master's studies have not been in the field of education (i.e, cross-over students), conceptual threshold crossing is likely to differ from that which is undergone by 'home-grown' PhD education students. Wisker identifies two kinds of threshold concepts: discipline-specific threshold concepts and generic postgraduate-level conceptual thresholds. Threshold concepts are to be seen as 'distinct from core concepts': 'troublesome' because they disrupt established ways of thinking, and 'transformative' in that internalising them is likely to result in altered perceptions of the object under study (Wisker 2012: 14).

For cross-over students, discipline-specific threshold concepts are thus complexly layered. In the new research field of education (which they now encounter for the first time) key existing knowledge which they need to master concerning the identified focus of their educational research project could include topics (and topic variants) such as teaching, learning, assessment, curriculum and pedagogy. While cross-over students would certainly know *of* these concepts, they soon acknowledge that their conceptual grasp of such topics is problematic in that their encounters with such concepts will not hitherto have extended to any theoretical dimensions. Jansen (2011: 140) refers to this disciplinary depth as acquisition of an 'intimate knowledge of the subject', a necessary precondition for authoritative engagement with the significant focal issues. He suggests that the way to remain at the cutting edge of knowledge in one's discipline is to be on the 'research alerts' mailing list of the journals in one's field, to be actively connected with one's subject librarian, to regularly read 'reviews of literature', to attend (and present) at national and international conferences and to subscribe to key journals in the field. All of these are effective ways to help the new cross-over student develop an authoritative voice and a solid

base from which to argue for the significance of one's research study. Reflecting on my own experience of engagement with cross-over students, a particular issue that stands out is the importance of carefully weaning new cross-over students as one steers their access to the network field. Although failing to heed the necessity of this disciplinary depth can have perilous consequences, as I have already illustrated, pressure to meet the set institutional timeframe for defending research proposals too often means that prerequisite knowledge of the subject (theory and foregoing research) is neglected, with consequences which are likely to surface in the later stages of the research process. In my supervisory experience, when defence of a research proposal that is inadequately informed by theoretical and conceptual knowledge of the targeted phenomenon does nonetheless succeed, the sequel tends to be that the student generates weak data, has difficulty 'seeing' data, and drifts into superficial analysis and theorising.

A closely related issue, equally ripe for further investigation, is the question of what constitutes an adequate literature review at the proposal defence stage. The PhD proposal template of the UKZN College of Humanities suggests a 400-word maximum for literature review, which can be misleading for both novice research students and their supervisors. Some students see this as a comparatively simple task and set about 'filling up the space' with references picked somewhat at random from literature and not well argued for. Particularly in relation to supervision of cross-over students, I am increasingly convinced that students should be encouraged to construct an extensive literature review at the pre-proposal stage much as they would a draft literature review chapter. The first step that I recommend is developing an annotated bibliography. Already a substantial undertaking given the very restricted research background that many of my cross-over students arrive with, bibliography compilation plus annotation gives students a powerful thrust in learning how to harness relevant literature, requiring deeper critical engagement with the sources that goes well beyond initial summaries of key findings. These skills thus acquired are then used to abstract, critique and synthesise the literature for capture in the abbreviated research proposal template.

A second layer of complexity exists for those of my cross-over students whose exposure has hitherto been confined to the dominant scientific paradigm (in which I have no capacity to supervise). But although I make a practice of declaring this incapacity up front to new students and encouraging

them to shop around for suitable supervisors, the real problem is that students from professional disciplines often have very limited research experience. Some have come through Master's programmes that had either just a very minor research component or none at all, so that, quite aside from whatever exposure they may have had to the dominant scientific paradigm, the acquaintance they have with any research methodology is very thin. As a consequence, they do not appear to be wedded to the scientific paradigm, nor, unsurprisingly, do fundamental constructs like paradigm, epistemology, ontology or methodology form any part of their lexicon. 'Paradigm', Kiley & Wisker (2009) remind us, is a key threshold concept that PhD students need to master, and reflection on my own supervision practice has brought home to me the crucial importance of covering this aspect with my cross-over students, since they often find it difficult to grasp how crucially it serves as a grounding for educational research globally and for their own educational investigation in particular. Very often they are so intent on identifying a research topic and developing their research proposals that issues of this order fall by the wayside. The means by which (and extent to which) PhD supervisors may help to acquaint students with this philosophical knowledge base in the pre-proposal stage and ascertain students' readiness to proceed further is another area that needs further study. There is, however, general recognition that a crucial aspect in the learning journey of PhD research, which must underpin the conceptualising of methodology for the study, is deepened insights about epistemology (what counts as knowledge) and ontology (what counts as truth). As Archer (1995) reminds us, methodology without ontology is blind and ontology without methodology is mute; it is very important for research students to understand this connection at the outset of their studies.

Cross-over students in the School of Education at UKZN are encouraged to enrol for introductory educational research courses offered to Master's students (with no compulsion to meet the assessment requirements) and to read available texts that deal with these issues. The extent to which students make use of this opportunity and how this learning is integrated into my supervision practice is an aspect of my supervision pedagogy that will certainly merit further critical reflection. While PhD students are encouraged to immerse themselves in educational research literature, especially educational research textbooks, there has been much criticism of the recent proliferation of textbooks (or 'advice books') offering recipes for doctoral

studies, many of which project unhelpfully reductive notions of linearity in the PhD process (Kamler & Thomson, 2008). It is much more appropriate to understand doctoral writing as a dynamic, discursive social practice involving interaction between colleagues rather than as a master–protégé relationship (Kamler & Thomson, 2008). This is one corrective perspective that I have found particularly valuable in reconceptualising my relationship with my cross-over students.

Disciplinary Dissonance

Cross-over students who are university academics also have to deal with a set of tensions and pressures emanating from their disciplinary home departments, to whom they may need to justify their chosen focus of educational research. Deans in traditional disciplines understandably encourage their staff to become discipline specialists rather than pursuing a PhD in education; developing and extending expertise that keeps one at the forefront of knowledge in one's discipline is always an imperative for university academics. Nor is being at the forefront a static situation; it is dynamic and constantly moving objective. University academics who choose to cross over to education for PhD studies forego an opportunity to build identity as a disciplinary knowledge producer, risking relegation to mere consumers of knowledge in their discipline. Undoubtedly, too, a PhD in Economics, Mathematics, Geography or Physical Science has more snob value (and more market value) than does a PhD in Economics Education, Mathematics Education, Geography Education or Physics Education. So is crossing over to education in fact a 'dumbing down'? Is education even a real discipline? – legitimate questions insofar as education has historically struggled to establish itself as a discipline in universities and has suffered the condescension of disciplines with a longer pedigree. In fact the full assimilation of education into the university only came about in the latter half of the 20th century and has been criticised as lacking consensus and coherence (Furlong 2013). This has largely to do with the long-standing connection with teacher training and to fact that education research has tended to have a heavily pragmatic focus rather than a 'commitment to *episteme*: fundamental research and scholarship' (Furlong 2013: 12). In South Africa, a similar context exists in which educational research is dominated by

teacher-education research. There is thus understandable pressure from 'purist' discipline heads and sceptics regarding the currency of educational research, and of higher-education research in particular.

The consequence is that these cross-over degree candidates have decided in effect to alter the trajectory of their scholarship. Academics in research-led higher education institutions are expected to demonstrate research expertise and competence in clearly defined and articulated fields. Choosing to do a PhD study in education thus becomes an explicit shift of scholarly allegiance: a decision, going forward, to research and publish in the field of education rather than in one's disciplinary home field. The gravity and extent of this life-changing move is often not fully appreciated by university academics who cross over to education.

A matter of especial concern for academics who put themselves in this position relates to their own capacity and competence for supervising postgraduate students in their home disciplines. With a PhD qualification being regarded a necessary 'licence' to teach and supervise in higher education, the question then arises as to whether the 'licence' obtained by cross-over students is 'valid' in their home disciplines as a recognition of expertise required to supervise discipline-specific Master's and PhD studies. Colleagues who have become educational research specialists now find themselves in a new predicament in that their competence to supervise discipline-focused PhD studies comes into question and they must seek to maintain credibility in the eyes of both students and peers. A good research supervisor must be able to induct high-level research students into the knowledge structures, values, and conventions (the discourse) of the discipline (Wisker 2012) – guide them into the community of practice (Wisker et al. 2007). Competence, as Wenger (1999) reminds us, is more than ability to perform certain actions or possession of certain narrow pieces of information; competent membership of a community of practice includes full accountability to the enterprise and full negotiation of the repertoire, the discourse, of the discipline.

Cross-over academics are likely to experience a high degree of academic vulnerability in transitioning to a new identity in a different community of practice. Negotiating a dual identity – in their disciplinary department and in new intellectual project of their educational research – is very likely to present its own set of challenges and frustrations. Wenger (1999) sees building an identity as member of a community of practice (such

as that of an academic discipline) as a process of negotiating the meanings of one's membership experiences, with a deep connection between identity and practice. In developing a practice, members engage with one another and acknowledge each other as bona fide members (Wenger 1999). For cross-over students, achieving a PhD in education translates into a feeling of inclusion (bona fide membership) in the educational research fraternity. As supervisor, I attempt to facilitate this process of induction into the educational research community by exposing cross-over students to educational conferences, co-presenting papers and co-authoring articles for educational research journals. While I may be able to help students move from peripheral membership of the educational research community to full membership, on reflection I also realise that I need to factor into my supervision enterprise discussions on how to manage a transforming identity.

Concluding Comments

Supervising the cross-over student at PhD level is an aspect of research supervision that I continue to struggle with. Research supervision itself is fraught enough, with continuously emerging complexities in a developing context such as South Africa, and working with cross-over students is always likely to present with its own challenges and opportunities. There is a significant element of liminality in the experience of cross-over students as they transition from relative security to high-level vulnerability and insecurity and later find new security (and insecurity), and supervisors need to be sensitive to the trauma and uncertainty that such students may experience as they move from the familiarity of their home disciplines into the new zone of educational research. And while there may well be an element of initial fragility that needs to be managed, it must also be remembered that these are students who already have high-level conceptual abilities; novice supervisors, who may still be coming to terms with their own liminality, need to temper their exuberance in seeking to instill student confidence.

What the enabling conditions are for threshold crossing, and how to create them, should be a key area for further enquiry. Kiley & Wisker are very suggestive on generic threshold concepts for postgraduate research success, but more needs to be understood about what the basket of threshold concepts might be for novice PhD education students and about indicators of their attainment.

My further concern in this article has been the identity dissonance which comes into play when cross-over students take the 'transgressive step' in the direction of research and scholarship outside of their disciplines. A key concern here is the credibility of a new doctoral graduate in Education as potential supervisor of PhD studies in their home discipline. Wenger reminds us that membership of a community of practice translates into an identity as a form of competence. In a community of practice, participants learn certain ways of engagement with each other. Identity emerges as a form of individuality defined in respect to a community; as a learning process, identity is a 'trajectory in time that incorporates both past and future into the meaning of the present' (Wenger 1999:163). I suspect that useful insights may emerge from more extended systematic enquiry into potential interdisciplinary transference of 'generic' research skills – transference taking place in the kinds of connections Wenger alludes to as 'brokering' within communities of practice.

References

Abbidin, N.Z., A. Hassan & A.R. Ahmad 2009. Research Student Supervision: An Approach to Good Supervisory Practice. *The Open Education Journal* 2: 11-16

Archer, M.S. 1995. *Realist Social Theory: The Morphogenetic Approach*. Cambridge: Cambridge University Press.

Becher, T. & P. Trowler 2001. *Academic Tribes and Territories*. Buckingham: Open University Press.

Bitzer, E. & R. Albertyn 2011. Alternative Approaches to Postgraduate Supervision: A Planning Tool to Facilitate Supervisory Processes. *South African Journal of Higher Education* 25,5: 874-888.

Brew, A. & L. Lucas 2009. Academic Research and Researchers. In Brew, A. & I. Lucas (eds.): *Academic Research and Researchers.* Bucking-ham: Open University Press.

Burford, J. 2014. Doctoral Writing as Affective Practice: Keep Calm and Carry on. In Bitzer, E. *et al.* (eds.): *Pushing Boundaries in Postgraduate Supervision.* Stellenbosch: SUN Press.

Clegg, S. 2014. Knowledge Questions and Doctoral Education. In Bitzer, E. *et al.* (eds.): *Pushing Boundaries in Postgraduate Supervision.* Stellenbosch: SUN Press.

Cross, M. *et al.* 2009. How Undergraduate Students 'Negotiate' Academic Performance within a Diverse University Environment. *South African Journal of Higher Education* 23,1: 21-42.

De Beer, M. & R. Mason 2009. Using a Blended Approach to Support Postgraduate Supervision. *Innovations in Education and Teaching International* 46,2: 216-222.

Deleuze, G. & F. Guattari 1987. *A Thousand Plateaus*. Minneapolis: University of Minnesota Press.

Feldman, A. 2009. Making the Self Problematic: Data Analysis and Interpretation in Self-Study Research. In Lassonde, C.A., S. Galman & C. Kosnick (eds.): *Self-Study Research Methodologies for Teacher Educators*. Rotterdam, Taipei, Boston: Sense Publishers.

Furlong, J. 2013. *Education - An Anatomy of the Discipline*. New York: Routledge.

Grant, B. 2003. Mapping the Pleasures and Risks of Supervision. *Discourse: Studies in Cultural Politics of Education* 24,2: 175-190.

Grant, C. 2014. Pushing the Boundaries of Postgrauate Supervision: Theorising Research Learning in Community. In Bitzer, E. *et al.* (eds.): *Pushing Boundaries in Postgraduate Supervision.* Stellenbosch: SUN Press.

Jansen, J. 2011. The Quality of Doctoral Education in South Africa. *Perspectives in Education*, 29,3: 139-146.

Kamler, B. & P. Thomson 2008. The Failure of Dissertation Advice Books: Towards Alternative Pedagogies for Doctoral Writing. *Educational Researcher* 37,8: 507-514.

Kiley, M. & G. Wisker 2009. Threshold Concepts in Research Education and Evidence of Threshold Crossing. *Higher Education Research and Development* 28,4: 431-441.

Kosnick, C. *et al.* (eds.) 2006. *Making a Difference in Teacher Education Through Self-Study: Studies of Personal, Professional, and Program Renewal.* Dordrecht: Springer Academic Publishers.

LaBoskey, V. 2004. The Methodology of Self-Study and its Theoretical Underpinnings. In Loughran, J.J. *et al.* (eds.): *International Handbook of Self-Study of Teaching and Teacher Education Practices*. London: Kluwer Academic Publishers.

Land, R., J.H.F. Meyer & C. Bailie 2010. *Threshold Concepts and Transformational Learning*. Rotterdam: Sense Publishers.

Larcombe, W., A. McCosker & K. O'Loughlin. 2007. Supporting Education PhD and DEd Students to become Confident Academic Writers: An Evaluaion of Thesis Writers' Circles. *Journal of University Teaching and Learning Practice* 4,1: 54-63.

Lassonde, C.A., S. Galman & C. Kosnick (eds.): 2009. *Self-study Research Methodologies for Teacher Educators.* Rotterdam, Boston, Taipei: Sense Publishers.

Lee, A. 2008. How are Doctoral Students Supervised?: Concepts of Doctoral Supervision. *Studies in Higher Education* 33,3: 267-281.

Maistry, S. M. 2012. Confronting the Neoliberal Brute: Reflections of a Higher Education Middle-Level Manager. *South African Journal of Higher Education* 26,3: Forthcoming.

Manathunga, C. & J. Gozee 2007. Challenging the Dual Assumption of The 'Always/Already' Autonomous Student and Effective Supervisor. *Teaching in Higher Education* 12,3: 309-322.

Shore, C. 2010. Beyond the Multiversity: Neoliberalism and the Rise of the Schizophrenic University. *Social Anthropology* 18,1: 15-29.

Szakolczai, A. 2009. Liminality and Experience: Structuring Transitory Situations and Transformative Events. *International Political Anthropology* 2,1: 141-172.

Van Schalkwyk, S. 2014. Evolving Doctoral Identities: Understanding 'Complex Investments'. In Bitzer, E. *et al*. (eds.): *Pushing Boundaries in Postgraduate Supervision.* Stellenbosch: SUN Press.

Wenger, E. 1999. *Communities of Practice: Learning, Meaning and Identity*. New York: Cambridge University Press.

Wisker, G. 2012. *The Good Supervisor: Supervising Postgraduate and Undergraduate Research for Doctoral Theses and Dissertations.* London: Palgrave macMillan.

Wisker, G., G. Robinson & M. Schacham 2007. Postgraduate Research Success:Communities of Practice Involving Cohorts, Gaurdian Supervisors and Online Communities. *Innovations in Education and Teaching International* 44,3: 301-320.

Suriamurthee Maistry
Social Sciences Cluster
School of Education,
University of KwaZulu-Natal
Maistrys@ukzn.ac.za

Calibrating the Barometer[1]: Student Access and Success in South African Public Higher Education Institutions

Sadhana Manik

Abstract

In the mid twenty first century there have been three key trends which have been identified across the world in the higher education sector: elitism, massification and access. Studies in South Africa (SA), post- apartheid have also revealed these trends, with an emphasis on massification and the widening of access for previously disadvantaged Black students (with a focus on African students in particular who suffered the worst level of disadvantage in apartheid SA) taking centre stage. Whilst there has been significant progress with regards to broadening access for students into public higher education in the South African context, public higher education institutions have been feeling the pressure to demonstrate that these students are achieving success (good throughput levels and reduced dropout) and this continues to be a challenge. This article provides an overview of some of the discussions related to selected discourses within student access and success in SA higher education, by undertaking a review of the recent local literature with the aim of highlighting the progress made towards understanding these phenomena and the gaps in knowledge that still require more research for greater understanding in the pursuit of achieving student success in South African public higher education institutions.

Keywords: access, success, first generation students, the first year experience, student support

[1] Upon calibrating a barometer, there will be correct pressure readings revealed.

Introduction

There has been three basic trends identified in higher education development worldwide: elitism, massification (i.e. the move from a system that served an elite only to one that every member of society might aspire to experience), and universal access (Altbach 2010). It has been asserted that South Africa (SA) is no different, post –apartheid (after 1994), showing the very same trends (Bundy 2006) but Lange (2006) argues that in the SA context the higher education shifts was more about achieving social justice rather than mimicking an international trend. The CHE (2010:02) by contrast acknowledged that there have been multiple influences stemming from a development perspective on the trajectory of South African Higher education by stating that 'The policy agenda for South African higher education that has been developing since 1995 has also been influenced by a number of international trends shaping higher education institutions in developed and developing countries'. It is apparent that there are various perceptions on the influences in the South African higher education arena upon SA becoming a democratic country in 1994. Despite the differences of opinion, the merging of institutions in SA from the year 2002, to the present 23 public institutions (consisting of two types namely comprehensive universities and universities of technology) and the genesis of multiple private institutions have positively altered the higher education terrain in promoting greater student access (Maphosa *et al*. 2014).

This paper examines selected current discussions centred on access and success which have become focal points in public higher education institutions (HEIs) in SA.

Access and Participation

Ultimately, the SA higher education transformation agenda has demonstrated a particular emphasis on massification and the widening of access to the previously disadvantaged Black racial groups especially that of the majority population, namely Africans. Studies have shown that there has been significant positive improvements in the composition of the student population in higher education in democratic South Africa with The Council on Higher Education (CHE) (2013) and MacGregor (2014) reporting that the number of African students in public higher education comprised 81% of the

total student body of 938 200 by 2011. In a presentation to parliament on the 5 March 2014, Dr Saleem Badat, Chairperson of Higher Education South Africa (HESA) announced that access into higher education had been achieved citing statistics that since South Africa became a democracy in 1994 to 2014, student enrolment had close to doubled. In addition, representation in HEIs had altered to being more in accordance to the demographics of South Africa. Interestingly he (Badat 2014) also reported that historically white institutions still had fewer black students than historically black institutions implying that the task of changing the historical racial trends at institutions were not rapid enough to overcome the past student demographics. This levelling of the racial demographics at these HEI's still remains one of the challenges requiring further research, in the local access discourse.

Another strand worthy of mention locally relates to participation. Hemsley-Brown (2012), reporting on international higher education, noted that almost all countries had dramatically increased their higher education participation rates whilst it has been argued that in South Africa, participation rates have been relatively slow to increase when compared to the increases in student access. The participation rate in 2005 was 16% (Strydom *et al.* 2010) and five years later in 2010, a mere 18% (CHE, 2011). A racial carving of participation levels in higher education locally is instructive. The participation of White and Indian students presently is 57% and 47% respectively (CHE 2014). Historically, the statistics are more revealing when a comparison is made between African students in public HEIs and the African population in the country. Here the CHE (2011) reported that the share of African students located in public higher education institutions increased from 2006 to 2011 by 12%, which reflected a growth from 451 106 in 2006 to 640 442 in 2011. This signals a phenomenal jump, however, they note that despite the increase in African enrollments in 1995 from 49% to 68% in 2011, racially this reflects 14% lower than the share of Africans in South Africa. Thus, how to increase the participation of African students in public HEIs remains a central area of discussion and a target to achieve for key higher education stakeholders.

Despite the shifts in the general student demographics stated above, another area of concern in higher education relates to student success especially that of African students.

Access but not Success

It has been argued that despite the great inroads made in increasing access for marginalized groups in South Africa, the success of these students has not been evident (Scott 2012, Maphosa *et al.* 2014, Sosibo & Katiya 2015). It therefore comes as no surprise that Sisobo and Katiya (2015: 272) in their paper report on The Department of Higher Education and Training having noted that 'improving student access, success and throughput rates is a very serious challenge…and must become a priority focus for national policy and for the institutions themselves' (DHET 2014: 31). As can be seen here emphasis on the phenomenon of student access and their success is being mooted by the DHET in 2014 for institutional and national discussion. What is interesting is that access is still being perceived by DHET as a target to achieve and that for DHET, student access cannot be divorced from student success which is linked to student throughput and dropout discussions. Sosibo & Katiya (2015: 271) also cite several scholars (such as Fisher & Scott 2011; Wingfield 2011; Mabelebele & Parry 2012) who note that 'high access and disproportionately low output and throughput rates in South African HEIs at both undergraduate and postgraduate levels have been widely documented'. It is very evident that the close relationship between access and success has been noticed by researchers in this field (see CHE, 2010, Scott, 2012) and Scott (2012:26) warns that 'unless there are decisive steps to improve success across the student body, African student attrition will increase disproportionately, defeating the object of widening access'. It must be chronicled that this appeal for attention by DHET is not a new calling in SA as The CHE, a body which advises the ministry of education, (2010) five years previously acknowledged that there are complexities involved in access, retention and throughput in HE in SA. It then undertook several studies related to the salient trends and challenges within higher education. In a similar vein, public HEIs have also been engaging in studying and monitoring their own students' success / lack thereof with studies on access, throughput, dropout and related discourses. Thus, in recent years there has emerged a burgeoning literature in the South African context on student access and their success with key emphasis being devoted to discussions on how to increase student throughput and measures to address student dropout (REAP 2008; Prinsloo 2009, Ramrathan 2013, Heymann & Carolissen 2011; Horn *et al.* 2011; Bojuwoyo, 2014; Bokana & Tewari 2014, Sosibo & Katiya

2015). Institutional work have included for example Ramrathan's (2013) paper on a conceptual framework to understand student dropout based on a study undertaken at UKZN; Heymann and Carolissen's (2011) paper on First Generation Students at Stellenbosch university, Bojuwoyo's (2014) paper on first year students' stresses undertaken at five institutions; Manik's (2014, 2015) papers on student dropout and support at one institution: UKZN, Sosibo and Katiya's (2015) paper on support initiatives implemented in the Western Cape, to name but a few. These are the results of recent research at South African public HEIs which attempt to expand institutional understandings of the challenges facing them with regard to these phenomena and to respond with steps in working towards achieving student success.

Below, I present some of the critical discussions that have been unfolding around student access, and their success in these and other related studies. Some studies are quantitative studies along statistical lines whilst others have started to probe qualitatively, the challenges experienced by students from their perspectives, with the hope that understanding students' experiences from their points of view will assist institutions to hone in on what they can implement at institutional level in their own context to make student success a reality. I also outline some of the nuances that these studies have revealed in respect of access and success.

The Statistics 'Speak'

A document on access and success at universities in SA by Lewin and Mawoyo (2014:09) revealed that graduation and throughput rates are low following on the findings of the CHE (2013) and 'thus a matter of serious concern'. This year as well, it was revealed that if throughput and graduation rates are demographically sliced, they are considered to be low for black students, whilst amongst white students the throughput and graduation rates are significantly higher than for black students (Badat 2014). It had long been argued by the CHE (CHE higher education Monitor 9, 2010) and it is very much still an issue that 'overall the higher education system still reflects the legacy of apartheid when it comes to participation by 'race' group and socio-economic status, and when it comes to who among these students finish their degrees on time and with good marks'. Lewin and Mawoyo (2014:09) cite the CHE's cohort studies on the time students take to complete their studies

by reporting that 'only 27% of all undergraduate students complete their studies in the minimum time'. The implication here is that the majority of students do not complete their studies on time and this had led to national discussions on the extension of the 3 year undergraduate degree to 4 years. Furthermore, Govender (2013) reported on a study where statistics tracking students from their enrolment in school revealed that an 'analysis of throughput data indicates that fewer than five South Africans in 100 who enrol in Grade one of schooling graduate from university'. So, clearly there are greater systemic issues impacting on higher education's output.

What is also of interest in the statistics being presented, is the nomenclature that accompanies it which Heymann and Carolissen (2011) warn about: namely that so called 'historically disadvantaged students' continue to be at risk of not graduating timeously despite an increase in funding initiatives (such as NFSAS) to financially support them. It was reported (Govender 2013) that the 'problem is particularly acute for disadvantaged students: only 28% of students in the National Student Financial Aid Scheme of South Africa, or NSFAS, make it to graduation'. The implication here is that measures to financially support students are insufficient in propelling them to achieve success and that additional measures need to be institutionalized, factoring in the impact of educational history. The above signals the need for a deeper interrogation and analysis of the term 'disadvantaged' when applied to students. In addition, clearly not only financial imperatives must be prioritized. I return later to the role of finances in SA higher education.

Shifting Stances, Shifting Terms

Inadvertently, improving the success of students also depends on the attitude of the institution which may have bought into the shift of moving from the narrative of 'unprepared students' (REAP, 2008) to 'underprepared students to 'underprepared institutions' (Dhunpath & Vithal 2012). This is reflected in the institutional decisions to take responsibility for poor student success by introducing innovative measures to support students after access has been granted. Largely, what has occurred in the past as REAP (2008) has articulated, and at times in the present is the continuation of students being addressed through a deficit discourse, that they are 'unprepared' /

'underprepared' for higher education, they are 'lacking in skills' etc. and insufficient attention is then given to institutional shortfalls because they lack preparedness in dealing with the increase of students experiencing numerous challenges. The DHET is not immune to this form of 'deficit' articulation and allocating responsibility. Sosibo and Katiya (2015) note that the department of Higher education and Training (DHET 2012: 42), has stated that 'inadequate student preparedness for university education is probably the main factor contributing to low success rates'. Dhunpath and Vithal (2012) boldly took this bull of 'underpreparedness' by the horns in their book focusing on access to higher education in SA by asking the question of whether it is a case of 'underprepared students or underprepared institutions'. The former authors have advocated that universities will have to continue to assist underprepared students to make the transition to a successful university career. It was thus evident that a pathologising of students was the discourse for some time and this hasn't totally disappeared. Interestingly, internationally Woodley (2004) had long warned that there is this danger of pathologising students when discussing their lack of success.

The Throughput and Dropout Discussion Threads

Local research on student dropout, through put and retention span over 10 years (Prinsloo 2009). Recently, Manik (2014) drew on studies to assert that the discourses on dropout in South Africa has been dominated by a discussion of the rates, that is the statistical aspects nationally and institutionally of student dropout. The same very same argument can be made in respect of access and throughput and these rates discourses have come at the expense of a qualitative deeper analysis and understanding of these phenomena.

In addition, using the category of Blacks in the statistics (see Badat 2014 earlier in this article) is misleading because Africans and Coloureds have lower rates of success when compared to Indians, yet all fall within the category of Black. An example of this can also be found in a study conducted by Scott *et al.* (2007: 19) years ago, in which they concluded the following: 'The major racial disparities in completion rates in undergraduate programs, together with the particularly high attrition rates of Black students across the board, have the effect of negating much of the growth in Black access that has been achieved'. Sosibo and Katiya (2015) maintain that this

variance has major repercussions institution wise in the attempts to align access and success for all students and not just designated groups.

With regards to dropout specifically, there have been 2 interesting current discourses: the dropout rates (as explained above) and the reasons for dropout incorporating the notion of first generation students and the 'first year' experience at university.

Dropout Rates

The dropout rates are still considered in some quarters to be high (Badat 2014, Beck 2011, Sapa 2008) and there hasn't been significant improvement since the HESA study on dropout which revealed that some institutions had a rate of 35%. Badat (2014) reported to the parliamentary committee that 55% of all higher education students never graduated. Given these alarming statistics on dropout, it is important to understand how dropout is conceptualized locally. Spady (1970) had long ago highlighted various definitions of student dropout. He noted that one definition could be that it 'includes anyone leaving a college at which he is registered' and another definition could be that it refers 'only to those who never receive a degree from any college'. Spady (1970: 68) does allude to the fact that the former is methodologically easier than the latter 'but it fails to provide a broad enough perspective on the actual rates of retention and attrition pertinent to the system of higher education as a whole'. This difference in definitions has significance because Manik (2014: 158) recently reported that in the capturing of dropout statistics at higher education institutions 'there is no distinction drawn between students who have dropped out to transfer to another institution, short term dropout and re-entry at a later stage'. This presents a quandary because students could possibly be transferring across HEIs and this is being erroneously presented as student dropout, with the implication that they have halted their pursuit of higher education when indeed they have not done so, but rather migrated to another HEI or picked up study after a break.

The dropout statistics in South Africa have also been segmented along categories of economic status and race which has revealed particular trends, most pronounced of which being that dropout rates were high amongst African students. Manik (2014) undertaking a qualitative analysis of student

dropout across multiple sites of UKZN, maintained that many Africans are still powerless to escape the poverty they have experienced since apartheid. Even small scale discipline studies such as that undertaken by Beck (2011) amongst the school of Accounting postgraduates at NMMU on dropout revealed other interesting racial threads, namely that dropout rates were the highest amongst Coloureds followed by Whites. He established that dropout amongst Coloureds and Whites in specific fields also necessitate some level of responsiveness.

The Socio-economic and Academic Influence in Student Dropout

Prinsloo (2009:18) undertaking research in SA has maintained that the heart of student retention in higher education is the result of any one of 3 levels: individual, institutional and supra-institutional. He has explained that 'some operate at the level of the individual student (motivation and ability and other personal characteristics and circumstances), others at institutional level (quality of advice, guidance and general quality of provision), and yet others operate at supra-institutional level (finance and other socio-economic factors)'. He unfortunately overlooks that there could be interconnectivity between the 3 levels and students could be dropping out due to a composite of levels as numerous studies have recognized (REAP 2008; Manik 2014).

Nevertheless, Tinto's ground breaking theory (1993) internationally on socio-economic integration of students into higher education in the US has impacted theoretically on local research which has found areas of resonance and dissonance. Tinto suggested that student success and retention in higher education is influenced by the following characteristics: their personal aspirations, objectives, their competences and skills, their academic history and their family's. Locally, Lewin and Mawoyo (2014:10) reported that the 'factors influencing access and success at university are complex and multi-dimensional' and they have separated these factors into social and academic factors. Their explanation of these factors are as follows: 'Social factors influencing access and success includes schooling background, socio-economic status, race and gender, and the social context of learning.

Academic factors influencing access and success are ….student and staff related, and include issues of pedagogy, language, and literacy, teaching

and assessment practices, and curriculum structure'. In this paper, a number of these issues are flagged for discussion.

Whilst Tinto initially (1982) did not factor in finance as a reason for dropping out, noting that it's the last consideration and not the first, he did comment that future models ought to take note of the value of finances. Studies in SA have outlined some identical reasons to international studies on student dropout. These include students' inadequate preparation for the academic demands of higher education, poor matching of courses which resulted in students' lack of commitment, financial burdens, adverse academic experiences, a lack of adequate integration into the culture dominating higher education and a plethora of personal trials (Beck 2011, Manik 2014, Van Zyl 2015). Van Zyl (2015) recently commented on 'academic problems and life problems' (housing, finance and food) playing a role in dropout and this has resonance with the earlier findings of Manik (2014) who interviewed students who had dropped out. Makoni (2014:online) has asserted that government has responded to 'the need for more historically disadvantaged students to access higher education and the rising costs of a degree through the National Student Financial Aid Scheme, NSFAS'. But he has also commented that 'students have complained that too few students are accessing loans and grants and that, for those who do, the loans are not enough to cover study expenses at a top university'. It thus appears that there is a host of inter-related factors that impact on students' dropping out of higher education making an understanding of student dropout far more complex that it was previously envisaged.

Furthermore, Tinto's model has been criticised by authors (in Koen 2008:69-70) such as Tierney (1992) and Braxton and Lien (2002), who argue that the Tinto's model does not adequately consider 'the notion of cognitive dissonance and even dislocation that students may experience when they enter higher education and encounter various forms of epistemological and ontological dissonances'. Locally, 'epistemological access' has been a key area of concern raised by scholars who research student access and success (see for example Boughey 2005; Dhunpath & Vithal 2012; Maphosa *et al*. 2014). In addition, poor academic preparation at school has been known to disadvantage students who pursue higher education MacFarlane (2013) and Manik (2014) has commented that there is a price that HEIs in SA pay in increasing access to students who have poor matric results, namely the domino effect of their dropout: whilst these students have been provided with

an opportunity to be in a HEI, they lack preparedness for sustained study in a HE environment which demands students be independent learners.

But of growing importance in SA, has been the dropout rate of first year students and the understanding of dropout amongst first year students is perplexing because their dropout occurs at the nexus of multiple interconnecting factors. It's no wonder Van Zyl (2015: 08) has stated that there is 'no magic bullet that could solve the problems of first years'.

Dropout amongst First Years

Initially, discussions around the preparedness of students was being mooted as the reason for student drop (Scott *et al.* 2007) and later (see Prinsloo 2009; Bojuwoyo 2014) there was an acknowledgement that several factors were responsible for dropout and not all of them fell within either the ambit of the student or the institution.

Bojuwoyo (2014:286) undertook a study of the stress experiencing by first year students at five HEIs in SA. His case studies have particular historical influences stemming from apartheid and communities which have been unable to progress sufficiently in a democratic SA. Four of the five institutions were termed HDIs or Historically Disadvantaged Institutions with the following characteristics: being under resourced and for Africans from poor rural contexts. He reported that there are 2 main ways in which first year students suffer stress at university through: '(a) lack of adequate financial support or poor budget to subsist, and that of (a) lack of information to assist in decision-making and early adjustment to the new environment of their universities …'. Maphosa *et al*. (2014: 410) also point out that the dropout literature does capture the change from school to university and that first year students have to move from being 'dependent learners' to becoming 'independent learners'. This idea conceptualized as the 'articulation gap' (Lewin & Mawoyo 2014; Sosibo & Katiya 2015) has been frequently cited as a key problem-linked to scholars writing about the underpreparedness of students. I pick up this idea of under preparedness yet once again, in a later section on language.

The Influence of Rurality

Bojuwoyo (2014), similar to Manik (2014) reports that poverty is responsible

for the numerous difficulties that students face when they shift from high school to university. But this is not new news because in 2008, the Rural Education Access Programme (REAP) which undertook a study on the factors impacting on the success of previously disadvantaged students established that rurality negatively affects students' success and furthermore, insufficient finances were a key reason for student dropout. REAP was also cognizant that the 'unpreparedness of students' was renowned 'but the unpreparedness of higher education institutions for these types of students is less taken into account' (REAP 2008:6). Earlier, I noted that the discourse since 2008, has altered slightly from 'unprepared' to 'underprepared' in respect of students and institutions suggesting that there is some level of preparation but it is inadequate.

Students termed to be 'first generation students' (FGS) also appear to be at risk of dropping out given that they are the first in their families to transition from school to university without the necessary support. FGSs have been defined by Dumais and Ward (2010) to be either students whose parents have not studied further than high school or students whose parents may have attended a tertiary institution but not graduated. REAP (2008:08) links the concepts of rurality and first generation students in demonstrating the influences inhibiting students' chances of achieving success: rural students may now have to study in a language that isn't their first language, which they haven't previously experienced and ' being the first generation in their families, and perhaps even in their communities, to enter higher education. This means that students' families do not have the educational capital or resources to assist their integration or support them in their academic studies'. But FGSs should not be perceived as a helpless group. Heymann and Carolissen (2011) note that some of the problems faced by FGSs at Stellenbosch University (SU) related to them as individuals or to the environment of the institution where they were studying. They draw on FGS studies which point to a tendency to conceive of FGSs as a 'deficit' group which needs to be 'rescued' but they report on FGSs at SU demonstrating their 'action' by forming a group and stating their needs and making the institution aware of their requirements which need to be met. Due to a third of students dropping out by the end of their first year, Heymann and Carolissen (2011: 1390) assert that FGSs must be understood as having 'real challenges' and in need of institutional support but they caution that a patronizing attitude should be avoided in classifying students according to

categories which will lead to labelling: being 'pathologised as problematic' for their specific needs.

Language of Instruction

The role of language (Jama *et al.* 2008; REAP 2008; Maphosa *et* al. 2014) in terms of the medium of instruction at HEIs has been foregrounded as having an impact on students' achieving success. Jama *et al.* (2008) cite language acquisition as a key area recognizing that students may be struggling with critical skills in English such as speaking, reading and writing and this has been part of the 'underpreparedness' discourse of first year students. Sosibo and Katiya (2015: 274) further explain that 'under-preparedness refers to the state of students who are in general not academically ready, especially in areas such as reading and writing, and particularly in the language of learning and teaching, which in most cases is English'. They add that this trend is more evident in students for whom English is a second language than for students studying in their home language. The CHE (2010: 04) had long recognized that in HEIs 'Staff had to adapt to teaching more students for whom the language of instruction was their second or even third language. Students had to adapt to an increasingly multilingual social and learning environment'. Thus, the language of instruction at institutions carry weight in determining their success. Another element of value stems from REAP (2008:08) which advanced the link between language and rurality stating that 'disadvantaged students experience…..having to study in a second or third language, to which rural students in particular may have had little exposure'. Maphosa *et al*. (2014) also builds on this idea of the medium of instruction and notes language competence as a reason affecting the learning ability of students and their academic performance.

From the above discussion and numerous publications, there appears to be consensus that the reasons for local student dropout are multiple and complex (Prinsloo 2009; Manik, 2014; Lewin & Mawoyo 2014) and this parallels the findings internationally on student dropout (see for example Crosling, Heagney & Thomas 2009). Recently, Van Zyl (2015:08) commented at a press gathering that 'The reasons are as complex for dropout as for those who dropout'. Clearly there exists the understanding that unpacking dropout through the lens of the institution as well as through

students' perspectives are multifaceted and intricate. So how can these reasons be channeled into providing some clarity of insight?

Working towards Success

Prinsloo (2009) advocates 2 key factors, namely timing and appropriateness, in the provision of effective academic support for students offered by HEIs and he draws on the 'Rural Education Action Programme (REAP) (2008:11) which stated that 'In order to be able to provide timeous and appropriate academic support, institutions need to be able to identify at-risk students at an early stage, to track and monitor their progress, and to evaluate the effectiveness of support systems and programmes offered'. In a similar vein, Sosibo and Katiya (2015: 271) argue in their paper based on a study at one HEI in The Cape that 'early identification of at-risk students is at the heart of improving student success, especially for those who enter higher education with gaps in their knowledge'.

But there are other aspects to improving the success of students and the CHE report (2010: 01) on access and throughput using three case studies (at the Universities of Pretoria, Witwatersrand and Western Cape) reported that whilst all the universities 'share a common past' in terms of their apartheid history, they had different contextual realities given their staff profiles, the location from which they draw their students, culture and access to resources.

This means that discussions on access and success have to also be carved according to the uniqueness of each case study institution.

Conclusions

Internationally, Hall's report on retention and wastage (2001: iv) warned that 'widening access is likely to result in increasing levels of student dropout' so it's not a revelation that locally SA is experiencing the same situation. Without a doubt, at present student success in higher education has become a mainstream issue. The political discourse about gaining access to university will not abate soon and continue to be controversial given the CHE statistics on less than 30 % of students completing their degrees in the minimum time. I am in agreement with Lewin and Maywoyo (2014) who state that there are

'diverse and complex factors' affecting access and success in SA universities and all of them require attention. One can fall into the trap of agreeing with the gloomy picture portrayed by Lewin Mawoyo (2014:112) who assert that 'The South African higher education system faces daunting challenges in addressing student access and success. It is a relatively poor performing and highly unequal system, with low participation, high attrition and substantial class and racial inequity'. However, there is arguably an expanse in the literature on student access and success in SA in the past few years, and studies clearly indicate that addressing student success is context specific and strategies have to be fashioned through the lens of each unique case study institution. This is a view that was once echoed by Prinsloo (2009: 19) who drew on Tinto's (2002:3) 'warning that research findings are context-specific and that what works in one context' may not necessarily be of benefit in another.

Thus there is adequate evidence to indicate that public HEIs and researchers are fervently undertaking research on student success and following through with measures to address these context specific challenges and embarking on evaluations of the measures to inform future practices. These are active measures which speak to the emergence of a positive trend in SA higher education to address concerns around student success. This is bound to lead to how institutions and policy can work to accommodate the majority of students who are unable to graduate in the minimum time and possibly also in some quarters, a persistence of the discourse on the 'deficient' student or 'deficit' institution. Equally so, on-going discussions on epistemological access and 'underprepared institutions' will serve as an impetus for continued and concerted efforts to address student access and success. It appears that ultimately the ball will remain in the court of public HEIs who will have to continue in their quest to find creative ways to serve an ace or a series of aces that can work towards reducing student dropout and promoting higher throughput levels for which they will gain recognition as students graduate on time. Ultimately, it should not be forgotten that the most significant aspect when choosing where to study is the institution's reputation which precedes it (Workman 2011).

References

Altbach, G.P 2011. Globalization and the University: Realities in an Unequal World. *International Handbook of Higher Education* 18: 121 – 139.

Forest, J.F. & P.G. Altbach (eds.): *International Handbook of Higher Education*. London: Springer.

Badat, S. 2014. *South African Higher Education in the 20th Year of Democracy: Context, Achievements and Key Challenges*. Pretoria: HESA.

Beck, R.A. 2011. *Retention and Dropout Rates for a Sample of National Higher Certificate Students in the School of Accounting*. Unpublished Master's Thesis: Nelson Mandela Metropolitan University.

Bujowoye, O. 2010. Stressful Experiences of First Year Students of Selected Universities in South Africa. *Counselling Psychology Quarterly* 15, 3: 277-290.

Bokana, K.G. & D.D. Tewari 2014. Determinants of Student Success at a South African University: An Econometric Analysis. *Anthropologist* 17, 1: 259–277.

Breier, M. & M. Mabizela 2008. Higher Education. In Kraak, A. & K. Press (eds.): *Human Resources Development Review 2008: Education, Employment and Skills in South Africa.* Cape Town: HSRC Press.

Briggs, S. 2006. An Exploratory Study of the Factors Influencing Undergraduate Student's Choice: The Case of Higher Education in Scotland. *Studies in Higher Education* 31, 705- 22.

Bundy, C. 2006. Global Patterns, Local Options? Changes in Higher Education Internationally and Some Implications for South Africa. *Ten Years of Higher Education under Democracy.* Issue 4. Council on Higher Education. Kagisano.

Council on Higher Education. 2010. *Higher Education Monitor No. 9. Access and Throughput in South African Higher Education: Three Case Studies*. Pretoria: Council on Higher Education.

CHE, 2011. Participation in Higher Education. Available at: http://www. che. ac.za/focusareas/highereducationdata/2011/participation. (Accessed on 23 April 2014.)

Council on Higher Education. 2013. *Higher Education Participation 2011*. Pretoria: Council on Higher Education.

Crosling, G., L. Heagney & M. Thomas 2009. Improving Student Retention in Higher Education: Improving Teaching and Learning. *Australian Universities' Review* 51, 2: 9-18.

Department of Higher Education and Training 2014. *White Paper for Post-School Education and Training: Building an Expanded, Effective and*

Integrated Post-School System. Pretoria: Department of Higher Education and Training.

Dhunpath, R. & R. Vithal 2012. Alternative Access to Higher Education: *Underprepared Students or Underprepared Institutions?* Cape Town: Pearson Education.

Dumais, S.A. & A. Ward 2010. Cultural Capital and First Generation College Success. *Poetics* 38: 245-265.

Govender, T. University World News 20 April 2013 Issue No: 268. Available at: http://www.universityworldnews.com/article.php?story=20130419125136707. (Accessed 23 April 2015.)

Hall, J. 2005. Retention and Wastage in FE and HE. Paper Presented at Higher Education Academy - ICS, Conference on Progression, Retention and Recruitment, 25 January 2005, Edinburgh.

Hemsley-Brown, J. 2012. 'The Best Education in the World': Reality, Repetition or Cliché? International Student's Reasons for Choosing an English University. *Studies in Higher Education* 37, 8: 1005-1022.

Heymann, l. & R. Carolissen 2011. The Concept of 'First Generation Student' in the Literature: Implications for South African Higher Education. *South African Journal of Higher Education* 25, 7:1378-1396.

Jama, M.P., M.L.E. Mapasela & M.A. Beyleveld 2008. Theoretical Perspectives on Factors Affecting the Academic Performance of Students. *South African Journal of Higher Education* 22, 5: 992-1003.

Koen, C. 2008. *Postgraduate Student Retention and Success: A South African Case Study*. Cape Town: HSRC Press.

Lange, L. 2006. Symbolic Policy and 'Performativity': South African Higher Education between the Devil and the Deep Blue Sea. In *Ten Years of Higher Education under Democracy*. Pretoria: Council on Higher Education.

Lewin, T. & M. Mayoyo 2014. *Student Access and Success: Issues and Interventions in South African Universities*. Cape Town: Inyatelo.

MacGregor, K. 2014. South Africa: Higher Education in the 20th Year of Democracy. The Global Window on Higher Education, Issue No. 317. Available at: http://www.universityworldnews.com/specialreports/index.php?action=view&report=53. (Accessed 10 June 2015.)

Makoni, M. 2014. Higher Education is Not Cheap. 24 October 2014. University World News Global Edition Issue 340. Available at: www.universityworldnews.com/article.php?story=20141023131301 39.

(Accessed 21 May 2015).

Manik, S. 2014. Shifting the Discourse: Student Departure in the Context of Relative Deprivations. *South African Journal of Higher Education* 28, 1: 148-163.

Manik, S. 2015. 'As a Person you Need Help Every Now and Then': Accessing Students' Support Needs in a Higher Education Environment. *South African Journal of Higher Education.* In press.

Maphosa, C. *et al*. 2014. Interrogating Factors Affecting Students' Epistemological Access in a South African University. *Anthropologist* 17, 2: 409-420.

Nel, C., C.T. de Bruin & E. Bitzer 2009. Students' Transition from School to University: Possibilities for a Pre-University Intervention. *South African Journal of Higher Education* 23, 5: 974-991

Prinsloo, P. 2009. *Modelling Through-put at UNISA: The Key to the Successful Implementation of ODL*. Pretoria: UNISA.

Ramrathan, L. 2013. Towards a Conceptual Framework for Understanding Student Dropout from HEI's. *South African Journal of Higher Education* 27, 1: 209-220.

Rural Education Access Programme (REAP) 2008. Factors that Facilitate Success for Disadvantaged Higher Education Students. Available at: http:// www.reap.org.za/REPORTS/RESEARCH/Factors%20that%20facilitate%20success_Final%20report%202008.pdf. (Accessed on 10 March 2015.)

Sapa 2008. *University Dropouts Increase.* Available at: http://news.iafrica.com/sa/917608.htm. (Accessed on 24 June 2008.)

Scott, I. 2007. *Addressing Diversity and Development in South Africa: Challenges for Educational Expertise and Scholarship*. Cape Town: Council on Higher Education.

Scott, I. 2012. Access, Success and Curriculum: Aspects of their Organic Relationship. In Dhunpath, R. & R. Vithal (eds.): *Alternative Access to Higher Education: Underprepared Students or Underprepared Institutions?* Cape Town: Pearson.

Sosibo, Z. & M. Katiya 2015. Closing the Loop between Access and Success: Early Identification of At-risk Students and Monitoring as Key Strategies Used by a South African University. *International Journal of Education Sciences* 8, 2: 271-279.

Spady, W.G 1970. Dropouts from Higher Education: An Interdisciplinary Re-

view and Synthesis. *Interchange* 1, 1: 64-85.
Strydom, J.F., M. Mentz & G.D. Kuh 2010. Enhancing Success in Higher Education by Measuring Student Engagement in South Africa. *Acta Academica* 42, 1: 259-278.
Tinto, V. 1982. Limits of Theory and Practice in Student Attrition. *Journal of Higher Education* 53, 6: 687-700
Tinto, V. 1993. *Leaving College: Re-Thinking the Causes and Cures of Student Attrition.* 2nd Edition. Chicago: University of Chicago Press.
Tinto, V. 2002. Establishing Conditions for Student Success. Paper Presented at the 11th Annual Conference of the European Access Network, Monash University, Prato, Italy. 20 June.
Woodley, A. 2004. Conceptualising Student Dropout in Part-Time Distance Education: Pathologising the Normal? *Open Learning* 19, 1: 48-63.
Workman, B. 2011. Extending and Embedding Work-Based Learning across the University: Change Strategies in Action. *Higher Education, Skills and Work-Based Learning* 1, 2: 106-117.
Van Zyl, A. 2015. University Dropout. *The Coastal Weekly* 18-22 May 2015. Page 4.

Sadhana Manik
Social Sciences Cluster, School of Education
University of KwaZulu-Natal
manik@ukzn.ac.za

Contributors

Rajendra Chetty is a Research Professor at the Faculty of Education of the Cape Peninsula University of Technology. He has served in several leadership positions across the university systems, including being a Director of Research. Contact details: chettyr@cput.ac.za

Simon Bheki Khoza (PhD) is a Senior Lecturer within the discipline of Curriculum & Education Studies at the University of KwaZulu-Natal, South Africa. He co-ordinates different undergraduate and postgraduate programmes, and teaches and supervises postgraduate research in Curriculum Studies & Educational Technology. Contact details: Khozas@ukzn.ac.za

Suriamurthee Maistry is an Associate Professor within the Social Sciences cluster in the School of Education at the University of KwaZulu-Natal. His research interests include higher education pedagogy as it relates to commerce disciplines, research supervision, and textbooks and educational media. Contact details: Maistrys@ukzn.ac.za

Sadhana Manik is a senior lecturer in Geography Education at the University of KwaZulu-Natal. Her teaching is predominantly in the postgraduate sector and her research avenues include teacher recruitment and migration, student access, departure, success and support. Contact details: manik@ukzn.ac.za

Samukelisiwe Mngomezulu is a lecturer in Curriculum Studies within the School of Education at the University of KwaZulu-Natal. Her research interest is on student academic support and she has recently completed her doctoral studies in this focus area. Contact details: Mngomezulus1@ukzn.ac.za

Padhma Moodley is a senior lecturer in the Department of Marketing and Retail Management within the Faculty of Management Sciences at the Durban University of Technology. Contact details: padhmam@dut.ac.za

Nicholas Munro is a lecturer in the Discipline of Psychology at the University of KwaZulu-Natal. His teaching and research interests lie in the areas of student learning, undergraduate education and psychological assessment. Contact details: munron@ukzn.ac.za

Duduzile Mzindle is a lecturer at the Durban University of Technology within the School of Education in the Faculty of Arts and Design. Her areas of specialization include Teacher Education and Curriculum Studies. Contact details: dudun@dut.ac.za

Subethra Pather is a lecturer at the Cape Peninsula University of Technology, Faculty of Education. She has just completed her doctoral study in the area of university students' experiences. Contact details: pathersu@cput.ac.za

Daisy Pillay is a senior lecturer in the School of Education at the University of KwaZulu-Natal. Her areas of research interests include teacher education, narrative inquiry and higher education. Contact details: Pillaygv@ukzn.ac.za

Labby Ramrathan is an Associate Professor in the School of Education at the University of KwaZulu-Natal. His areas of interest are in Teacher Education, Higher Education and Curriculum Studies. Contact details: ramrathanp@ukzn.ac.za

Michael Anthony Samuel is a Professor in the School of Education at the University of KwaZulu-Natal. He supervises and co-ordinates doctoral studies programmes. His research interests include teacher professional development, educational policy, curriculum development in higher education, and life history and narrative inquiry. Contact details: Samuelm@ukzn.ac.za

Veena Singaram co-ordinates the Clinical and Professional Practice Research Group within the School of Clinical Medicine, University of

KwaZulu-Natal. Her specialization is in Anatomy and had recently engaged in medical education as her research interest. Contact details: Singaram@ukzn.ac.za

Rachael Jesika Singh (Prof) is the Director for Research at the University of Limpopo. She holds a PhD in teacher education. She worked as a school principal before joining Higher Education in 2007. Contact details: Jesika.Singh@ul.ac.za

Ted Sommerville is a lecturer in the School of Medicine; University of KwaZulu-Natal. He has recently completed his doctoral studies in Higher Education. Contact details: Sommer@ukzn.ac.za

Zilungile Sosibo is an Associate Professor within the Faculty of Education at the Cape Peninsula University of Technology. She is currently serving as HOD: Research. Her areas of research interest include Curriculum assessment and evaluation, Quality in higher education, Diversity and transformation and Student support. Contact details: SosiboL@cput.ac.za

*Alter*nation
Guidelines for Contributors

***Manuscripts* must be submitted in English (UK). If quotations from other languages appear in the manuscript, place the original in a footnote and a dynamic-equivalent translation in the body of the text or both in the text.**

Contributors must submit *one computer-generated and three double-spaced printed copies* of the manuscript. Up to 10 original off-print copies of the article will be returned to the author after publication.

Manuscripts should range between 5000-8000 and book reviews between 500-1000 words. However, longer articles may be considered for publication.

Attach a cover page to one manuscript containing the following information: Author's full name, address, e-mail address, position, department, university/ institution, telephone/ fax numbers as well as a list of previous publications. Authors must also submit a brief academic biographical sketch of about sixty words, indicating institutional affiliation, main scholarly focus, books published, significant articles, and/ or academic journals regularly contributing too.

***Maps*, *diagrams* and *posters* must be presented in print-ready form. Clear black and white photos (postcard size) may also be submitted.**

Use footnotes sparingly. In order to enhance the value of the interaction between notes and text, we use footnotes and not endnotes.

Authors may use their own numbering systems in the manuscript.

Except for bibliographical references, abbreviations must include fullstops. The abbreviations (e.a.) = 'emphasis added'; (e.i.o.) = 'emphasis in original'; (i.a.) or [...] = 'insertion added' may be used.

The full bibliographical details of sources are provided only once at the end of the manuscript under References. References in the body of the manuscript should follow the following convention: Dlodlo (1994:14) argues .... or at the end of a reference/ quotation: ... (Dlodlo 1994:14).

The full name or initials of authors as it appears in the source must be used in the References section.

Review articles and book reviews must include a title as well as the following information concerning the book reviewed: title, author, place of publication, publisher, date of publication, number of pages and the ISBN number.

<u>The format for the references section is as follows:</u>

Head, B. 1974. *A Question of Power.* Oxford: Heinemann Educational Publishers.

Mhlophe, G. 1990. Nokulunga's Wedding. In Van Niekerk, A. (ed.): *Raising the Blinds. A Century of South African Women's Stories.* Parklands: Ad Donker.

Mngadi, S. 1994. 'Popular Memory' and Social Change in South African Historical Drama of the Seventies in English: The Case of Credo Mutwa's *Unosimela. Alter*nation 1,1:37-41.

Fanon, F. 1986. *Black Skin, White Masks.* Markmann, C.L. (trans.). London: Pluto Press.

***Alter*nation Special Edition 17, 2015**
ISSN 1023-1757

Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa

ARTICLES

PRINT CONNECTION Tel (031) 202-7766; 202-7766