FOCUS ON FIRST-YEAR SUCCESS

PERSPECTIVES EMERGING FROM SOUTH AFRICA AND BEYOND

Editors

BRENDA LEIBOWITZ

ANTOINETTE VAN DER MERWE

SUSAN VAN SCHALKWYK

Focus on First-Year Success

Perspectives Emerging from South Africa and Beyond

Editors
Brenda Leibowitz
Antoinette van der Merwe
Susan van Schalkwyk

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CONTRIBUTING AUTHORS

Ada Jansen has been a lecturer in the Economics Department at Stellenbosch University since 2004. She teaches undergraduate Microeconomics as well as Public Economics and Environmental Economics at postgraduate level and is responsible for the coordination of the first-year Economics tutorial programme. Her research interests include the Economics of Education, in particular the teaching and learning of first-year Economics students and has published in this field in the journals *Education as Change* and the *South African Journal of Economics*.

Antoinette van der Merwe is Director of the Interactive Telematics Services Division at Stellenbosch University. In her previous position as Deputy Director of the Centre for Teaching and Learning, she was directly involved in the conceptualisation of the First-year Academy. She has a PhD from Stellenbosch University in Science and Technology Studies and has been involved in e-Learning initiatives since 1998 and the portal project specifically since 2002. Her main research interests include virtual learning spaces and the effective use of educational technology in higher education.

Avinash Govindjee is Associate Professor in the Faculty of Law at the Nelson Mandela Metropolitan University. He is an attorney of the High Court of South Africa, practising as a consultant to the firm Burmeister de Lange Soni Incorporated in Port Elizabeth, and is a part-time Senior Commissioner at the Commission for Conciliation, Mediation and Arbitration. He has published widely in areas pertaining to human rights, labour and social security law and has lead-authored a number of textbooks and workbooks focused specifically on introducing law to students in a meaningful fashion.

Bette Davidowitz is an Associate Professor at the University of Cape Town (UCT), where she studied for her PhD in chemistry. While working as a scientific officer in the Chemistry Department she became interested in research in education in chemistry. She currently holds a lectureship in chemistry where her main duties are teaching under-prepared students registered for the access course. Her research focuses on improving teaching and learning in chemistry both in the classroom and the laboratory. In 2004 she was the recipient of a Distinguished Teacher Award at UCT and the South African Chemical Institute Education medal.

Brenda Leibowitz has been the Director of the Centre for Teaching and Learning at Stellenbosch University since 2003 and is responsible for the work of the First-year Academy. She has a PhD from Sheffield University on academic literacy in multilingual settings. She is currently the chairperson of the Higher Education Learning and Teaching Association of Southern Africa (HELTASA). Her research interests include professional academic development, identity and higher education, action-based research and social justice in education. She is a member of the award-winning research team on Community, Self and Identity. She is co-editor of the book *Routes to Writing in Southern Africa,* published in 2001.

Carina Smit obtained her Masters degree in Economics from Stellenbosch University in 2008 and she is currently employed as Tutor in the Economics Department. Her responsibilities include lecturing first-year Macroeconomics and coordinating the first-year Economics tutorial programme with Ada Jansen. Her research interests fall within the field of the Economics of Education, with a strong focus on the use of academic support initiatives, such as tutorial programmes, to improve the success of first-year students.

Carisma Nel is a Professor in the Faculty of Education Sciences at the North-West University (Potchefstroom Campus) where she is responsible for teaching the foundations of reading and strategic learning and development to undergraduate and honours students. She is the sub-programme leader of: Quality Literacy Instruction within Diverse Teaching and Learning Environments, within the faculties' research focus area. Her research interests include reading literacy from the foundation phase through to the higher education sector, academic literacy and support, English Second Language teaching and learning and statistical data analysis.

Cecilia Jacobs is the teaching and learning co-ordinator in the Engineering Faculty at the Cape Peninsula University of Technology. She works with engineering educators in the areas of curriculum development, teaching and learning. She is an Associate Professor and co-leader of the Work-Integrated Learning Research Unit, an institutional niche area within the National Research Foundation. Dr Jacobs' research interests are in disciplinary literacies and how disciplinary knowledge is communicated through discipline-specific language. Her current research focuses on the teaching of disciplinary literacies within disciplinary domains and its implications for academic developers and disciplinary specialists in higher education.

Charl Nel is Head of the Reading and Learning Centre within the Academic Services Department at the North-West University (Potchefstroom Campus). He is responsible for the academic literacy profiling of first-year students, specifically their reading profiles, as well as general learning support to all students on campus. His research interests include eye movement analysis and evidence-based reading instruction and academic support.

Eileen Hulme is Associate Professor in Higher Education and Executive Director of the Noel Strengths Academy at Azusa Pacific University, having spent 25 years in higher education as the chief student affairs officer at three universities, including her last position as Vice President for Student Life at Baylor University. She received her PhD in Adult Education Human Resource Development for the University of Texas – Austin and was awarded a Fulbright scholarship to study the higher education system in Germany. She has authored articles on a strengths approach to student success and is currently completing a national mixed-methods study on high achieving college students.

Francois Strydom is the Director of Student Development and Success (SDS) at the University of the Free State. He has collaborated on various higher education initiatives related to access and success with higher education consortiums and the Higher Education Principals' Association of South Africa (HESA). He has given several presentations on diversity and has been actively involved in institutionally based diversity initiatives and national initiatives such as the Anti-racism network. Dr Strydom is currently heading up a research project on student engagement and improving undergraduate success, that forms part of the Council of Higher Education (CHE) investigation into undergraduate curricula.

Geetha Narayanan is a Research Associate in GENIE. She has a laboratory-based background, having gained her PhD in Molecular Microbiology from the University of Nottingham. She then worked in the Department of Genetics at the University of Leicester, gaining further research experience and taking on undergraduate teaching responsibilities as a postdoctoral researcher. Most recently she has undertaken research roles in GENIE, investigating the student experience, the challenges faced by international students on bioscience postgraduate courses and the impact of outreach.

Gert Young joined the Centre for Teaching and Learning in 2007 after five years of teaching Greek in Stellenbosch University's (SU) Department of Ancient Studies, and Research methodology in the Department of Political Science. As an advisor in SU's First-year Academy he is responsible for coordinating the extended degree programmes and managing the First-year Academy monitoring system. He is currently enrolled for a PhD and his research interests include the role of identity in both teaching and learning, and the influence of identities and symbols in intergroup relations.

Gisela (Gigi) Meyer Escoe is Vice Provost for Assessment and Student Learning at the University of Cincinnati (UC). Her efforts focus on developing strategies to enhance the learning experience of undergraduate students and to analyze the success of those methods for realizing UC's vision of the new urban research university. Her publications span economics and higher education disciplines. Her numerous paper and workshop presentations have focused on effective leadership, creating teaching strategies to bring about a "small town" feel to a large urban campus, and developing student scholars. She is the Principle Investigator for over $3,000,000 in external grants and awards.

Hanelie Adendorff has been a senior advisor at the Centre for Teaching and Learning at Stellenbosch University since 2003. Her areas of responsibility include the student assessment function of the university and issues related to teaching in the Science Faculty. She has a PhD in Inorganic Chemistry from the Nelson Mandela Metropolitan University. She occupied an academic position in the Chemistry Department at Stellenbosch University before joining the Centre for Teaching and Learning and received the Rector's award for teaching excellence during this period. Her research interests include student assessment and the scholarship of teaching and learning.

Ian Scott is Director of the Academic Development Programme and Professor and Deputy Dean in the Centre for Higher Education Development at the University of Cape Town. He has served on task teams and undertaken commissioned research for various national bodies in South Africa since the political transition, including the Ministry of Education, the Council on Higher Education, the National Commission on Higher Education and the National Committee on Further Education. His research and development interests include higher education policy related to teaching and learning, curriculum and qualifications frameworks, comparative models for widening participation in higher education, and professional development.

Jon Scott was recently appointed to the position of Director of Education in the College of Medicine, Biological Sciences and Psychology at the University of Leicester, prior to which he was Director of Biological Studies. He has a PhD in Neuroscience from the University of Durham and teaches physiology to Medical and Bioscience students. His neuroscience research interests are in the control of movement and he also has an active research programme in learning and teaching, with particular interest in retention and the student experience.

Laura Dison is a Teaching and Learning Advisor in the Faculty of Humanities at the University of the Witwatersrand. She has recently completed her PhD at Wits University on factors that promote or inhibit success of students in a first-year university course. She currently works with Education lecturers to design teacher education courses in a range of disciplines. Her research interests include identifying the academic potential of entry-level students for coping with the academic demands they will face in higher education and creating frameworks for understanding the relationship between writing and higher order thinking.

Laurie Schreiner is Professor and Chair of the Doctoral Programs in Higher Education at Azusa Pacific University in southern California, having spent 27 years in higher education as a psychology professor and associate academic dean after receiving her PhD in Psychology from the University of Tennessee. She is co-author of StrengthsQuest: Discover and Develop Your Strengths in Academics, Career, and Beyond, as well as numerous articles on student success. She serves on the board of the National Resource Center for First-Year Students and Students in Transition at the University of South Carolina.

Len Steenkamp has been a lecturer at the Department of Accounting at Stellenbosch University since 2004 and is primarily involved in teaching Information Systems to students studying towards becoming chartered accountants and Strategic Management Accounting to B Comm Honours. His research interests include accounting education, transdisciplinary research, accounting information systems and matters related to the accounting profession as a whole. He has published a number of articles and presented at conferences in these research areas. He is involved in various support structures for first-year students.

Liezel Frick is a lecturer in the Centre for Higher and Adult Education (Department of Curriculum Studies) at Stellenbosch University. Her research interests include continuing professional development, learning in higher education and transdisciplinary research. She is involved in various projects in the academic community related to student learning, continuous ministry development, leadership development, and building research networks in the agricultural sector. She has written various scholarly articles and book chapters on continuous professional development, assessment and recognition of prior learning, and improving students' learning outcomes.

Marianne W. Lewis is Professor of management, interim Associate Dean for undergraduate programs, and Director of Kolodzik Business Scholars. She is a member of the University of Cincinnati Academy of Fellows for Teaching & Learning (AFTL). Her research explores tensions, conflicts, and paradoxes that both impede and enable innovation, and has won awards for her research papers. She has applied her paradox lens to a number of fields, with publications in *Journal of Management Education* and *Management Learning*. She has played integral roles in the development of her college's first year-experience, and the creation of a new MBA program.

Marietjie Lutz is part of a two-year fellowship programme offered by the Centre for Teaching and Learning at Stellenbosch University. The fellowship is the first of its kind at this institution and is managed in collaboration with the department of Chemistry and Polymer Science at the same university. She has a PhD (2006) from Stellenbosch University in Polymer Science. She has been involved teaching first-year Chemistry since the start of 2005. Her research interests include the role of assessment in learning as well as technology improved teaching.

Mégan Burgoyne is an educational advisor at the Centre for Teaching and Learning at Stellenbosch University and has a Masters in Sociology. She focuses specifically on providing support to tutor coordinators in terms of establishing and expanding tutorial programmes, as well as offering generic training to tutors across campus.

Melody Mentz is working at the University of the Free State at the Division for Student Development and Success as a senior researcher. She lectures part-time at the Department of Psychology. She is currently working on her PhD on the relationship between the intention of first-year students to engage in educationally purposive activities and success in higher education. Her research interests include statistical methodology in the social sciences, student engagement and diversity in higher education. Currently she forms part of the research team investigating student engagement in the South African higher education context.

Michael Gregory holds a Doctorate from the University of Bristol, UK. He is currently Director Institutional Planning at the University of Botswana. He has worked in senior academic and administration roles in the UK, Australasia, Asia-Pacific and the Middle East and consulted in various universities in central Europe. He maintains an interest in how institutions need to change to improve student success. In 2010, he takes up a position as Pro Vice-Chancellor at the University of the South Pacific.

Nicoline Herman is currently Senior Adviser: University Teaching, at Stellenbosch University's Centre for Teaching and Learning where she has been employed since 1999. She holds an MPhil in Higher Education from Stellenbosch University. Her passion is educational development. She has been the driving force behind educational development initiatives for newly appointed academics, including the Professional educational development for academics (PREDAC) programme. She has helped establish and run the Fund for Innovation and Research in Learning and Teaching at Stellenbosch and an annual conference on learning and teaching for academics at the university.

Pamela Person directs the University of Cincinnati's Center for First Year Experience and Learning Communities. Under her leadership the centre has instituted curricular approaches that integrate students' academic, community, and professional interests and that demonstrate lasting, positive impact upon student persistence and academic achievement. Her scholarship focuses on higher education leadership, curriculum design, and student development. She received the Outstanding First-Year Student Advocate award presented by the National Resource Center for The First-Year Experience and Students in Transition.

Paul Green is a Teaching Fellow in GENIE (Genetics Education Networking for Innovation and Excellence), a Centre for Excellence in Teaching and Learning, at the University of Leicester, UK. He has a PhD in Social Anthropology from the University of Hull, having conducted ethnographic research with Brazilian migrants living and working in Japan. His research interests focus on personhood, family, generational change and nationalism. He currently provides social science input to a variety of projects in GENIE and contributes to teaching in the School of Biological Sciences.

Peter Dietsche is Assistant Professor of Higher Education in the Department of Theory and Policy Studies and the William G. Davis Chair in Community College Leadership at the Ontario Institute for Studies in Education of the University of Toronto. With a PhD in Higher Education from the University of Toronto, his research has focused on the impact of policy and practice on student educational outcomes in Canadian and U.S. colleges. Recently he was principal investigator for the Pan-Canadian Study of College Students and the College Experience, the Pan-Canadian Survey of Exemplary Practices in College Learning and the Ontario College Student Engagement Survey

Ralph Pina has been Director: eBusiness in the Information Technology division at Stellenbosch University since 2002. He led the university's web portal implementation project and focuses on understanding the information system needs of an academic institution and implementing appropriate solutions. Current initiatives include refocusing institutional information systems to support post-graduate study and research more effectively, and sustainable IT. An electronic engineer by training, he holds an MBA and MPhil (Environmental Management).

Roelof Baard has been a lecturer at Department of Accounting at Stellenbosch University since 2003 and is involved in teaching Financial Accounting and Information Systems to first-year students studying towards a B Commerce degree. He has been the recipient of a number of teaching awards, recognizing his contribution to first-year success. Roelof has implemented and is still responsible for a number of support programmes for first year students. His research interests are accounting education for first-year students and transdisciplinary research. He is involved in various institutional and departmental research initiatives in these areas.

Sandiso Ngcobo holds an MA degree in Linguistics obtained from the University of KwaZulu-Natal where he is currently completing his PhD in Linguistics. His main research interest is in bi/multilingualism, language attitudes and language policy. He has presented papers and conducted workshops based on his research work at a number of national and international conferences. He has published in *Paradigms* and by Orient Blackswan under the title *Indigeneity: Culture and Interpretation*.

Susan van Schalkwyk is Deputy Director at the Centre for Teaching and Learning at Stellenbosch University. Apart from her work as coordinator of the University's First-year Academy – a university-wide initiative that focuses on first-year student success – she also heads up a number of the Centre's research projects and is actively involved in various activities to support academic staff development. She holds a PhD in Higher Education and has published in the fields of curriculum development, academic literacy and institutional change.

Stella Granville teaches in the Department of Applied English Language Studies in the School of Education at Wits University. She has a wide range of teaching experience in high schools, teacher colleges and the university. She coordinated the award-winning Foundation in English Course from 1999 till its closure in 2007. Her current interests include teaching first-year students, teacher education and language and literacy. She coordinates and teaches on a Masters Programme in Academic Literacy.

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Ludolph Botha was a key role-player in getting our own First-year Academy started. We would like to thank him for his leadership and support. Finally we wish to thank Betty Siegel, President Emeritus: Kennesaw State University, for sowing the initial seeds and encouraging us to participate in courageous conversations.

SUSAN VAN SCHALKWYK
BRENDA LEIBOWITZ
ANTOINETTE VAN DER MERWE

STELLENBOSCH UNIVERSITY
2009

FOREWORD

MAGDA FOURIE
DEPUTY VICE-CHANCELLOR, STELLENBOSCH UNIVERSITY

The importance of the first-year experience and the need for urgent attention to this matter has long been noted in South African as well as international popular media and scholarly publications. It is, therefore, high time that a scholarly work on this topic has been produced in South Africa, and I am especially proud for Stellenbosch University to be associated with this edited work.

South Africa is, in many senses, a young democracy, and it is of the utmost importance that the professional and intellectual capacity of our country is developed and strengthened. This cannot be done if the students who arrive at our doors with high expectations and much trepidation have their hopes for academic success dashed before their first academic year is complete. Several studies, amongst others the results of the final pilot phase of the National Benchmark Tests Project, have shown that school-leavers are not sufficiently prepared for the challenges of higher learning.

For this reason, what occurs at this important point of transition is the source of much concern, as well as the cause for celebration. Various chapters in the book serve as eloquent testimony as to why we should be anxious about our success rate with regard to first-year students. The book also shows why we should be proud of the innovation, creativity and dedication of many of our lecturers of first-year students and academic support personnel and research staff, who seek to improve the quality of the first-year experience.

Stellenbosch University has been at the forefront of the movement to pay systemic and concerted attention to the first-year experience, with the inception of the First-year Academy in 2006. This initiative has recognised the need for attention to the whole student, and has thus brought together those role-players in the University who administer to the academic as well as social aspects of being a student.

This book highlights the tremendous task which is to be accomplished, as well as the variety and depth of the work that has already been conducted in this sphere. One of the important initiatives has been the institution of a forum for the very dialogue that brought this book into being – the first South African First-Year Experience Conference in 2008. The chapters in this book are based on first-hand experience of teaching, innovation and scholarly work. The coming together of individuals from South Africa, southern Africa and from the international community in order to engage in this dialogue represents an important moment in our scholarly history.

Solving our problems requires attention to local issues, local solutions and theories, as well as the contributions of international colleagues. I hope that this book will serve as a catalyst for further innovation, introspection and scholarly work on the subject of the first-year experience.

Stellenbosch
2009

INTRODUCTION

PERSPECTIVES ON THE FIRST-YEAR EXPERIENCE

SUSAN VAN SCHALKWYK
BRENDA LEIBOWITZ
ANTOINETTE VAN DER MERWE

Why a focus on the first year?

The international focus on the first-year experience (FYE) represents a strong and well-established movement in higher education. A focus on what happens in the first year at university, and how this influences student success, has become a fixture on the higher education landscape. In 2009, the annual International Conference on the First-Year Experience and Students in Transition was held for the 29th time. Through the years, its main sponsoring partner, the National Resource Center at the University of South Carolina, has been instrumental in establishing the movement world-wide.

The concern with first-year success has grown incrementally with the challenges facing higher education as a result of the emerging global trends of massification, widening access, the influence of technology and dwindling resources appearing to manifest most strongly at first-year level. It is little wonder then, that with the increase in student diversity internationally, educationists who seek to enhance student success should pay attention to the moment of greatest transition, the first year of study. There is much consensus in the literature about the challenges that the transition from school to university present and the need for early intervention (Tinto, 1999, 2003; Yorke & Thomas, 2003). One of the reasons for the focus on the first year is the overwhelming influence of schooling, which socialises students into 'particular approaches to learning and responses to educational institutions' (Mann, 2008:90). These approaches are not always conducive to fostering an open-minded, creative and critical approach towards knowledge and learning that is particularly desirable for higher education. A further challenge in the new millennium is the potential increase in distance between the literacy and numeracy conventions that students acquire from the school, the electronic media and other sources, on the one hand, and the manner in which communicative convention, identity and group participation are encouraged in higher education, on the other. For example, Greenhow, Robelia and Hughes (2009) point to the positive as well as negative effects on students of

belonging to the digital generation, and to the need for educators to understand, manage and enhance, and indeed, even to model, these new literacies.

The need to support the transition to university life seems to be magnified in the South African higher education context. A study of 20 postgraduate students at the University of the Western Cape in 1995 revealed that students experienced points of transition at various times in their careers, but that the first year was the most intense of these, with comments elicited, such as, 'it was a very traumatic and harrowing experience' (Leibowitz, 1995:39). We believe that material and social inequality and divisions based on ethnicity pose far greater challenges than might be the case in North America, Europe or Australia, where much of the literature on the first-year experience is produced. These inequalities occur at national, institutional as well as individual levels, and affect the abilities of students from all race and class backgrounds to succeed at university, as Scott (Chapter 1) so compellingly demonstrates. Inequality amongst rich and poor in South Africa is amongst the highest in the world (United Nations Development Programme, 2008), and aggravating this is the inequality amongst higher education institutions in terms of funding (from various sources) as well as graduation rates (Council on Higher Education, 2006). Thus the ability to support students' entry into the academy remains both unequal and differentiated. Finally, the expenditure on higher education as a whole in South Africa remains lower, at 2.7%, than at 3.3% for the rest of the world (National Advisory Council on Innovation, 2006).

A focus on success

In response to these challenges there has been significant growth in institutional structures and interventions aimed at facilitating the student's transition from school to university, and providing support during the first year. However, given the title of this book, 'Focus on First-Year Success', it would be useful to begin by attempting to establish a shared understanding of what success in the first year might represent, and thus a shared understanding of what it is that we are aiming for.

The work of Upcraft, Gardner and Barefoot (2005) provides a working framework in which they define success according to eight different dimensions, namely the ability to:

- develop intellectual and academic competence;
- establish and maintain interpersonal relationships;
- explore identity development;
- achieve clarity about career goals;
- maintain health and wellness;
- consider faith and the spiritual dimensions of life;
- develop multicultural awareness; and
- develop a civic responsibility.

Inherent in this framework is the notion that the successful first-year learner is one who, whilst responsive to others and society, takes responsibility for his or her wellbeing and plays a significant role in his or her own development. Success is characterised

by a combination of disposition, attitude and strength, in order to learn *how* to learn. This is captured in three of the eight capabilities for students generated by Walker (2006a:128):

- 'educational resilience – able to navigate study, work and life';
- 'learning disposition – having confidence in one's ability to learn';
- 'knowledge and imagination – being able to gain knowledge of a chosen subject'.

Barnett (2007) sums up this disposition towards successful learning as having 'the will to learn'. Such a fundamental requirement for student success should be built from the first moment of entry across the university's portals.

How should we respond?

Increasingly, both higher education and discipline-specific journals inform us of the many different approaches that are being adopted in response to the first-year challenge. In this context, we would agree with McInnis (2001:110) that an analysis of work in the field shows that it is in many ways relevant to studies in higher education more broadly. What, according to this literature, is an appropriate response to the needs of the first-year student? The most significant call uttered in the past few decades has been for a student-centred approach to learning (Barr & Tagg, 1995; Chickering & Gamson, 1991; Dietsche, Chapter 2). We argue that careful attention should be paid to what precisely is meant by 'student-centred learning', and that this does not imply a narrow focus on student support. Even in this volume, many of the chapters describe various interventions, which although innovative and pedagogically sound, represent variations of student support activities. The point is not to deny the value of these interventions, but rather to ask to what extent these should be undergirded by more systemic attempts at transformation. Some years ago, McInnis (2001:113) cautioned that much of the research in this field was student-focused, particularly with regards to underprepared students and the different forms of support that are made available to these students. We would contend that eight years later, this observation is still pertinent. Within the broader context of academic development in South Africa, Volbrecht and Boughey (2004) note that an exclusive focus on student support is linked to the marginalisation of academic development and thus lack of potential influence on the entire institution. Given the importance of the institution (Jones, Coetzee, Bailey & Wicomb, 2008) in enhancing the chances for academic success of the first-year student, this point cannot be overemphasised.

In relation to support for student learning, the dedicated government funding to support extended degree programmes in South Africa and the influence this has had on research foci in recent years needs to be acknowledged. The significant focus on extended degree programmes and direct student support has inadvertently led many to associate the first-year experience with the 'struggling student' – a notion that we wish to counter. The needs and expectations of the student in the 21st century differ on multiple levels from those of previous generations, and this is true of *all* students (Dietsche, Chapter 2). Schreiner and Hulme (Chapter 5) advocate an affirmative approach which draws on the unique talents of each individual student, and in so

doing, promote self-efficacy and what Walker (2006b) refers to as 'confident learning dispositions'. Acknowledging these different perspectives of student learning, research that elicits the student voice is appropriate. This assumption is legitimised when one considers that a number of the studies discussed in this book depended on student responses (Gregory, Chapter 7; Steenkamp, Baard & Frick, Chapter 10; Adendorff & Lutz, Chapter 12; Ngcobo, Chapter 15; Burgoyne, Jansen & Smit, Chapter 16). The debate around student agency, persistence and motivation, alluded to earlier, provides a variation on this theme and constitutes another component of student learning that is foregrounded in this collection (Gregory, Chapter 7; Davidowitz, Chapter 14). Adopting an 'affirmative' approach is not without its own questions and difficulties, however. There are a number of tensions in this debate. What is the nature of the preparedness and capabilities of our students? Do we value the cultural capital (Bourdieu, 1986:243) that our students bring to our universities, even if it is quite different from the prevailing institutional culture or 'invisible tapestry'(Strydom & Mentz, Chapter 4)?

To return to the issue of adopting a student-centred approach to learning, we would argue that this does not require a focus on the student as an isolated individual with innate and given characteristics and independent from his or her surroundings. The first-year experience is influenced by much more than simply what happens in the classroom (Astin, 1993; Pascarella & Terenzini, 2005). Recent trends in educational research place much emphasis on the social dimension of learning. Notions of alienation and engagement (Mann, 2001), communities of practice (Wenger, 2000; Granville & Dison, Chapter 13) or disciplinary discourse communities (Kreber, 2009; Nel & Nel, Chapter 9; Granville & Dison, Chapter 13; Jacobs, Chapter 17) are foregrounded in current teaching and learning discourse. Participation in the community enables the novice student to acquire an understanding of the ways of doing that characterise the different disciplinary discourses. This understanding paves the way for the students to negotiate their way into the heart of the discipline where they can eventually share in the task of knowledge creation, see things in a different way (Entwistle & Peterson, 2004:409) while at the same time be able to critique and question prevailing ideological perspectives (Kreber, 2009:13).

McInnis (2001:113) suggested that studies focusing on the first-year experience need to look at what he terms the 'broader issues'. But what are the practical implications of this suggestion? His inclusion of the undergraduate curriculum in his understanding of these broader issues is one that we would agree with. Scott (Chapter 1) describes the curriculum as being 'fundamental to the educational process, enacting the faculty's educational philosophy and purposes'. Adopting an evidence-based approach, Dietsche (Chapter 2) draws on a number of different sources to formulate what he describes 'a new paradigm for promoting learning ...'. In both instances these authors are addressing the broader issues. Scott (Chapter 1) in particular provides much direction. He suggests that the choice facing higher education has to do with the extent to which there can be alignment between this philosophy and purpose and the 'preparedness, capabilities and orientations of the students' – this against

the backdrop of the national imperatives surrounding social justice and citizenship. To what extent do our curricula make space for students to engage realistically in the academic community of practice? These questions are implicit in a number of the chapters in this book and the responses provided ought to contribute to the ongoing debate. We would also argue that a focus on the first-year experience should include attention to an extremely important role-player: the lecturer (Leibowitz, Van Schalkwyk, Van der Merwe, Herman & Young, Chapter 18). Northedge and McArthur (2009:107) remind us that the lecturer plays a central role in guiding the student into the discipline, and that a 'learner-teacher relationship of some kind always lies at the heart of effective higher education'.

The impetus for this book

As indicated previously, attention to the student experience and to student academic success in particular, has long been the subject of research and innovation in South Africa, with much of this attention focused on the first-year student. The history of the academic development movement in South Africa, dating back to the late 1980s, has been documented by Volbrecht and Boughey (2004). Their analysis of the various movements and trends informing academic development demonstrates the array of approaches towards facilitating student success, that are still evident in this book. What has most typified academic development in this country is a profound interest in social justice and equity and in students as human beings that *matter*. Unfortunately, this sphere of activity in South Africa, as well as elsewhere, has tended to be approached in a piecemeal fashion, rather than via a systemic approach.

It was the concern for students and humans that matter, as well as the need for greater efficiency, that led to the first institutional and holistic approach to the first-year experience in South Africa. Substantial dialogue, collaborative discussion and reflection on the international and literature by academics and administrators, led to the inception of the First-Year Academy (FYA) at Stellenbosch University in 2006. This is a virtual structure that has as its main objective the promotion of first-year success by focusing on the coordination of university-wide activities and by supporting faculty-specific interventions that have this same aim. Such a systemic-holistic approach is based on the premise that student success is not exclusively determined by what happens in the lecture rooms, but also by what happens *outside* the lecture rooms, thus taking cognisance of the entire system within which students function. In practical terms, this means that every aspect of the students' experience of university life influences their chances of achieving success. This is why every aspect of the University has been made part of the scope of the FYA, including the use of supportive measures such as early assessment and web portals as key infrastructure and tools for first-year students (Van der Merwe & Pina, Chapter 8).This all-encompassing understanding of the first-year experience provides an important premise for our book which showcases work that was presented during the *1st Southern African Conference on the First-Year Experience: Opening conversations on first-year success* and which was a project of the FYA. Although the decision to compile this publication was made at the start

of the conference planning period, the overwhelming response to the conference itself and the need to capture some of the rich and diverse presentations, provided further motivation. Thus the book was born out of a desire to contribute to the call for change and to respond to the ideals expressed earlier. In so doing we hope to provide a platform for higher education practitioners from a wide range of backgrounds to participate in these conversations on a diverse array of themes and to enrich their own practice.

An overview of the book

Many different lenses are used to explore the central theme of the book, each in its own way contributing to the conversation. Thus, while some chapters highlight national and international trends in higher education, others foreground student voices. Some of the chapters are abstract, or generic, while others are more pragmatic or specific to particular groups of students. The diversity that is evident from reading the table of contents emphasises the complexity and situatedness that underscores research of this nature. Each chapter, however, has the focus on the first-year experience as a common theme. The authors come from a wide range of backgrounds representing thirteen different higher education institutions in South and southern Africa as well as the UK and North America. Many are academics – some of long-standing – most having spent time in a first-year classroom. Others are academic development practitioners whose focused endeavours in supporting first-year students and the lecturers who serve them, are documented.

In the opening chapter of this book Scott describes the traditional image of the first university year as 'one of exciting intellectual and personal discoveries, independence in thought and behaviours, widening horizons, and growth in confidence'. He goes on to suggest, however, that this is not the 'first-year experience' for the majority of students entering higher education in South Africa. Instead he argues that it is incumbent on the sector to reposition itself – to bring about meaningful change – if it is to respond to realities that its students are experiencing. The need for change emerges equally strongly in the Dietsche chapter where he calls for 'significant change in the way higher education institutions interact with students, create learning environments and engineer opportunities for specific experiences'. Yet, reminds Dietsche, these ideas are not new. He cites Durkheim, who in the 19th century 'argued for the importance of social networks, interpersonal interactions and community as the key to integrating and retaining individuals in social contexts'.

These two opening chapters provide a context for the book as a whole. The work comprises four sections and takes the reader on a journey through many different aspects of the first-year experience – from research through to reports and even personal accounts. While some are more theoretically grounded (Dietsche, Chapter 2; Schreiner & Hulme, Chapter 5; Nel & Nel, Chapter 9; Jacobs, Chapter 17), others adopt a more narrative or descriptive style to recount the implementation of an innovation or intervention (Person, Escoe & Lewis, Chapter 6; Van der Merwe & Pina, Chapter 8; Govinjee, Chapter 11; Adendorff & Lutz, Chapter 12). In the first

section the focus is broad, looking at either national systems or universal perspectives. Apart from Scott's challenging and factual perspective on the South African higher education sector, the Dietsche chapter foregrounds an important theme of the book that we have discussed earlier in this Introduction – that of establishing a student-centred approach that seeks to personalise the relationship that exists between the students and the institution. Green, Cashmore, Scott & Narajanan (Chapter 3), who write from a UK perspective, adopt an ethnographic approach that explores particular insights into aspects of student transitions. Their work, which presents the student voice, reminds the reader that university life is multi-layered and complex and that this impacts directly on the student experience. Issues of diversity provide the main theme for Chapters 4 (Strydom & Mentz) and 5 (Schreiner & Hulme) which address the challenges that diversity presents and the possibilities inherent in seeking to capitalise on the strengths that all students bring to the higher education playing field.

The second section looks at institutional initiatives and interventions that adopt a holistic and integrated approach to students, managing diversity, using information and communication technologies (ICTs) and aspects of academic discourse and reading. In Chapter 6, Person, Escoe and Lewis pick up on the theme of learning communities, emphasising the importance of adopting an integrated approach to student success. As is the case with the FYA at Stellenbosch University, they draw on both the academic and the social world of the first-year student in their study. Gregory (Chapter 7) then provides a southern African (Botswanan) perspective on this same topic while Van der Merwe and Pina (Chapter 8) demonstrate the value of using portal technology to support the overall goals of the FYA at SU. The final chapter in this section (Nel & Nel), speaks to an academic development approach that focuses on academic reading.

The final section of the book presents a series of case studies. While some of these studies address themes that have already been introduced, such as academic literacy and extended degree programmes (Granville & Dison, Chapter 13; Davidowitz, Chapter 14; Ngcobo, Chapter 15), others contribute to providing a rich description of the first-year experience by opening conversations on assessment, tutorial programmes and issues relating to the language of teaching and learning. These case studies also represent a variety of disciplines including Accounting (Steenkamp, Baard & Frick, Chapter 10), Law (Govindjee, Chapter 11), Chemistry (Adendorff & Lutz, Chapter 12) and Economics (Burgoyne, Jansen & Smit, Chapter 16). Perhaps more importantly, however, these studies bear testimony to the commitment of the many academics who have sought to adopt a scholarly approach to their teaching. It is this work that Scott in the first chapter suggests needs to be overtly rewarded and recognised.

Having explored the context, expounded different approaches and given voice to the students, the book's spotlight moves to the university teacher. Jacobs (Chapter 17) revisits the notion of disciplinary discourse community that had been introduced earlier by Granville and Dison (Chapter 13), describing how it becomes crucial for lecturers to be able to make overt that which is often hidden for the newcomer student.

Leibowitz, Van Schalkwyk, Van der Merwe, Herman and Young (Chapter 18) explore the notion of 'becoming' good at what you do – in contributing to first-year success. This final chapter provides what we hope will be a signpost that shows *where to from here* as it highlights the need for reflective, responsive and scholarly teachers and academic development practitioners.

Final thoughts

South Africa's unique history and educational realities add several layers of complexity to the debate about how to respond to the first-year experience – one that has more to do with our divided past. In our country, higher education faces very specific challenges; challenges that impact across the sector. Nationally, there is a clear mandate that institutions contribute to meaningful nation-building and social transformation, promoting ideals of citizenship and social justice. Throughout history, universities have been places where vigorous debate and rigorous scholarship have influenced society's thinking on these issues, where identities are shaped and future leaders are born. Yet, how will this happen if one out of every three young people entering higher education in South Africa leave by the end of their first year (Scott, Chapter 1) and if success at undergraduate level seems to be 'racially differentiated' (Schreiner and Hulme, Chapter 5)? Questions as to why students leave university without a qualification provide stark reminders as to the debilitating socio-economic standing of many entering students, the impact of an inequitable schooling system, and tensions that can result from the cultural, language, socio-economic and other dimensions of diversity that characterise most of our universities (Kreber, 2009). These questions demand responses. In this book we present some of these responses, mindful of the fact that they provide merely a glimpse of the status quo and that the reality is both complex and multi-facetted.

Much endeavour in higher education is currently focused on the success of its first-year cohorts. As such, it places a burden on dwindling resources. It is, therefore, incumbent on practitioners to adopt a reflective approach to their day-to-day practice. It is, however, equally important for the sector to be accountable and to evaluate and document this work rigorously, and to strike a balance between basic and applied research. This will open up a space for more proactive, broad-based research rather than reactively focusing on, for example, student attrition (Gregory, Chapter 7; McInnis, 2001; Yorke & Thomas, 2003). Importantly we need to consider how what we are doing will contribute to our students eventually being successful in a super-complex world (Barnett, 2007). In this context it is necessary to consider the implications of what this book contains and to discern the extent to which responses to the important questions posed at the start of this introductory section have been formulated. While some of the chapters close with summative comments that recommend a particular approach, strategy or design, and describe the lessons learned, others acknowledge that, in exploring a particular aspect of the first-year experience, they have in reality exposed more avenues requiring investigation. Such is the nature of educational research.

Hodkinson (2004:24) has suggested that a key outcome of research ought to be *learning – learning* that will enable us to 'tell better stories ... that provide better understanding of aspects of education ...'. Our intention with this work is to provide texts that will contribute to such learning among those higher education practitioners who have a responsibility at first-year level. It is our hope that in telling our 'better stories' we will indeed open conversations on first-year success.

Notes to the reader

While some of the chapters are written from an international perspective (Dietsche; Green, Cashmore, Scott & Narayanan; Person, Escoe & Lewis; Schreiner & Hulme) most of the work focuses on South and southern Africa. For the international reader it will be important to obtain an understanding of the South African higher education context which Scott's opening chapter provides. Terms or phrases which may require some elucidation include the following:

- The references to the ethnicity of different groups of students reflect the legacy of South Africa's past and the inequities that were, and in many cases still are, prevalent in education (primary, secondary and tertiary). Generally reference to *black* students will imply black (African, coloured, Indian) unless otherwise stated.
- *Extended degree programmes* refer to programmes that generally extend the generic, three-year Bachelors degree by one year, providing additional foundational content during year one.
- In the previous political dispensation in South Africa, Model C schools were predominantly for white children and were better resourced. The name has been maintained in common South African discourse as it denotes a greater level of resourcing than that which is found at many other schools.
- A faculty refers to the structure within which a specific broad field of study would be housed. For example, Faculty of Education. Academic staff members are referred to as lecturers in the context of their teaching role.

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SECTION ONE

CHAPTER 1

FIRST-YEAR EXPERIENCE AS TERRAIN OF FAILURE OR PLATFORM FOR DEVELOPMENT?

CRITICAL CHOICES FOR HIGHER EDUCATION

IAN SCOTT

Introduction

The traditional image of the first year at university is one of exciting intellectual and personal discoveries, independence in thought and behaviour, widening horizons, and growth in confidence. This is close to reality for some students, but for many others – in fact, perhaps the majority in South Africa – the experience is marred by failure, loss of confidence, and perhaps disillusionment. This has far-reaching consequences for the individual, for the development of South Africa's talent, and thus for social, economic and political well-being. If this situation is avoidable, surely all reasonable efforts should be made to avoid it.

Conditions in higher education in South Africa since the political transition are in some respects reminiscent of the post-World War II period of what was then unparalleled expansion of universities, taking place in the context of extensive social change. Many new universities were built in developed countries, particularly in the 1960s, in response to increasing demand for participation. (This was also a period of new universities in South Africa, but for a rather different reason: the grand-apartheid-driven need to establish separate facilities for each of the main ethnic or language groups.)

The sixties' inclusionary optimism was tempered relatively soon, however, when it became evident that university failure and drop-out rates were rising along with rising enrolments. It was in the 1970s, then, that specialised units dedicated to researching and addressing this problem were established in many higher education institutions, in the form of, for example, 'bureaux for university teaching' and 'teaching methods' units. There was a special concern about particularly high attrition rates in the first year. This led in time to the establishment and international growth of the 'First-Year

Experience' (FYE) movement, as well as a research industry on student learning and factors affecting performance and persistence.

The last two decades have seen another surge in demand for participation in higher education around the world, often government-driven and associated with rapid economic and social change. The demand has been accommodated not only by some building of new institutions (particularly in developing countries and through growth in private higher education), but also by the restructuring of higher education systems and the conversion of many non-university institutions – such as polytechnics and colleges – into universities or universities of technology. In South Africa, after some false starts, higher education enrolment has almost doubled since the early 1990s (Council on Higher Education [CHE], 2004:65), and the institutional 'landscape' has been substantially reconfigured through mergers and the establishment of universities of technology and 'comprehensive' universities.

While there has been concern about student attrition in South Africa for decades, this has sharpened in recent years with the identification of high-level skills shortages as a key obstacle to development and with the production of the first system-wide longitudinal (cohort) studies of the undergraduate[1] intake by the Department of Education (DoE). As is discussed later, there is unfortunately ample justification for the concern, not least in relation to the longstanding issue of first-year performance.

In view of the importance of success in higher education, for development as well as the individual, this must raise the question of what has been achieved since the 1970s. How much have we learnt and what have we done about improving student learning and reducing attrition? A key underlying question is, given the exponential growth in research on teaching and learning and knowledge over the last thirty years, why does it seem so hard to bring about positive change?

Prima facie, there are some clear reasons for the difficulty of advancing the educational agenda in higher education. In the contemporary world, there is strong and increasing competition for academics' time, energy and creativity. While it is commonly asserted that teaching and research are integrally linked, many academics experience a direct tension between these core scholarly functions in their day-to-day lives. The forms of research that most readily bring reputational and material reward – that is, work leading to countable outputs such as short articles in specialised journals – often have little bearing on effective undergraduate teaching. Moreover, in the last century or two, valorising research over teaching has become embedded in academic culture and identity. At the same time, 'teaching' in all its facets has become more difficult, with major changes in student intakes and contestation over the purposes of higher education. Teaching itself, therefore, requires more knowledge and effort.

The regrettable dichotomising of teaching and research has the effect of forcing academics to make choices about what they give their time and scholarly effort to. In these circumstances, in view of the prevailing academic culture and reward system,

[1] For the sake of brevity, certain terms are used generically in this chapter. Thus 'undergraduate' refers to diploma as well as degree study.

it should not be surprising that it is hard to substantially improve the effectiveness of the educational process. In fact, it must be asked whether it is not unrealistic or naïve to expect any greater educational focus unless there is a compelling vision or need for change.

In South Africa and other developing countries, this question does not necessarily suggest defeatism, since there *is* a compelling need for change. In this sense, the severity of the problems in higher education may serve to focus attention on the challenges. If an alternative vision is to be developed, however, there is clearly a need for the big issues confronting the sector to be delineated as sharply as possible – for the state and the public as well as the academic community – and for tensions to be faced. This chapter is based on the contention that choices are continually being made within the sector that have critical implications for the nature and outcomes of the learning experience of the great majority of South African students. However, the choices are often implicit or unconscious, or based on a narrow view of what is at stake. To contribute to the debate, the chapter outlines an argument for the importance of improving the educational process in higher education, with particular reference to the first-year experience, as a basis for identifying and understanding the significance of some high-level choices that affect the role and contribution of the sector.

It should be noted here that arguing for the importance of improving teaching and learning is not intended to imply that the universities' responsibilities for knowledge production are somehow less significant – which is patently not the case, particularly in emerging economies – but rather that it is in the country's vital interests that a productive balance should be found.

Undergraduate performance patterns in South Africa

The significance of the first-year experience

The first year of higher education is an educational stage with powerful influence on future success, for the individual student and the sector as a whole. The first-year experience, in terms of cognitive, personal and social development, largely determines students' first-year performance, which in turn is a key foundation for advanced study (including postgraduate study, which is vital to intellectual development in all spheres, including the future staffing of the universities). The quantity and the quality of the country's graduate outcomes have major implications for social, political and economic development, particularly in a context of scarcity of skills.

It follows that it is critical to the health of the sector that there is regular analysis of what is happening in the first year across the universities. Some key characteristics of the first year are discussed later but this section focuses on using quantitative data to shed light on student performance in the first year and what follows in undergraduate programmes.

A note on sources

The quantitative data and some related analysis used in this chapter are drawn from a study of sector-wide undergraduate performance patterns that formed part of a research project commissioned by the CHE, the report on which was published by the Council as *Higher Education Monitor 6* (Scott, Yeld & Hendry, 2007). Aspects of the implications of the data, along with summaries of key points, are elaborated on in Scott (2009a, 2009b) and Yeld (2009).

The quantitative analysis undertaken in the CHE project was based on cohort studies of the 2000 and 2001 first-time-entering undergraduate intakes conducted by the DoE. This was the first sector-wide work of this kind in South Africa. In these studies, the performance of students is tracked for up to five years, until they graduate or leave their original institution. Cohort data of this kind are regarded as the most reliable longitudinal measure of student performance.

The brief summary of key data from the 2000 cohort study that follows is presented as necessary background to and evidence for the analysis in the body of the chapter. The 2001 study is not fully comparable because data are missing from some institutions, but the performance patterns it reflects are essentially the same.

Participation in higher education

One of the key characteristics that distinguish between different kinds of higher education systems internationally is participation rates. The measure used here is the Gross Enrolment Rate (GER) favoured by UNESCO, which is the total number of students in higher education (of any age-group) in a given year, expressed as a percentage of the 20 to 24 year-old age-group in the population.

South Africa's overall GER is 16%, which is lower than that of economically comparable countries and very low in comparison with the rates in developed countries, where the minimum is about 60%. This situation indicates the need for overall growth in higher education. The racial inequalities in participation indicate where that growth must predominantly come from: the white and Indian rates are 60% and 51% respectively, while the black African and coloured rates are both 12%. Since black and coloured enrolment has doubled over the last two decades to now comprise some 70% of the total (DoE, 2009), the continuing disparities in participation rates come as a surprise to many in the sector, but are nevertheless the most telling measure of access.

A key implication of the participation rates is that the black and coloured students who enter higher education are a highly selected group, representing by and large the top decile of their groups in terms of achieved performance. If intelligence or educability is randomly distributed across populations, the black and coloured intake must collectively have high potential to succeed. This contradicts the common view in the academic community that many (particularly black) students in the intake 'do not belong' in higher education. This anomaly is a critical aspect of the character of the South African higher education sector, and is discussed later.

Given the significance of improving graduate output, it is essential to know what becomes of the current intake, not only because this information is important in itself, but also because it must be taken into account in assessing prospects for future growth. The following sections offer a brief outline of current performance across the sector.

Performance in the first year

The cohort studies and other data sources (e.g. Letseka & Maile, 2008) show that about 30% of the undergraduate intake drop out or are excluded at the end of their first year. This means about 45,000 students from the present annual intake of about 150,000. If only 'contact' students are considered (that is, excluding distance education students), the attrition rate is over 20%.

It is true that there are high first-year attrition rates in many tertiary education systems, but particularly in developed countries this usually occurs in a context of high levels of participation in higher education. This is not the case in South Africa. Here a combination of low participation and high attrition, in an environment of scarce skills and major social and economic challenges, is a threat to development and a contributor to the widening of the North-South divide.

Moreover, the experience of failure in first year goes well beyond those students who drop out at this time. Many others fail one or more courses, or pass only very marginally. This indicates less than adequate grasp of their areas of study, which in many cases has a cumulative effect and leads to demoralisation and terminal failure in the senior undergraduate years, as reflected in the data that follows.

It is of course also true that students drop out for a range of reasons, including financial and personal ones, which feature commonly in surveys of factors affecting retention. However, there is at present little if any systematic knowledge of the relationship between students' academic performance and the decision to drop out 'voluntarily'. A shortcoming of retention research that depends on anonymous responses and self-reported reasons is that it cannot verify any associations between drop-out and performance. It may be postulated that, as the cost of higher education rises, it is possible that students' perceptions of their likelihood of succeeding influence decisions on whether or not to continue investing in their studies. Research on this topic could make a significant contribution to understanding attrition patterns.

Overall undergraduate performance

The 2000 cohort study provides telling data on sector-wide student performance. After five years, only 30% had graduated, and 14% were still in the system. Even with fairly optimistic estimates of eventual success among the latter students and inter-institutional transferees, the cohort completion rate will not exceed 45%. In the contact university programmes – the best-performing sub-sector – only 50%

of the cohort graduated within five years. Performance in the contact 'technikon'[2] programmes was notably lower: after five years only 32% had graduated.

Disaggregating the data by qualification type and broad subject category shows that this kind of pattern is found in all the major qualification types – general and professional first degrees and national diplomas – and most of the broad subject categories. Even when distance education students are omitted, the five-year graduation rates in first degrees in key subject areas (e.g. Business and Management, Life and Physical Sciences, Engineering, Law, Languages and Social Sciences) are around or below 50%. In national diplomas in similar key subject areas the rates are below 35%.

The net effect is a 'loss' of about 65,000 of the then-intake of 120,000. This compounds the attrition in the first year, and is an indicator that many first-year survivors did not gain firm enough academic foundations to support them through their programmes. Failure to realise student potential on this scale is clearly highly damaging to the economy and the wider development agenda.

It is also damaging to the future of the academy itself in that the pipeline to postgraduate study, and thus *inter alia* to new generations of academic teachers and researchers, is seriously obstructed. South Africa's increasing investment in postgraduate students – aiming to radically boost the output of PhDs because South Africa is far behind the developed world in this respect – is unlikely to gain an optimal return until the undergraduate base of the system is greatly strengthened.

Equity of outcomes

Arguably the most disturbing figure to emerge from the cohort analysis is that under 5% of the black 20 to 24 age-group succeed in public higher education and graduate with a recognised qualification.

The 5% black success figure arises from a combination of the low participation rate and high attrition. The latter is illustrated by the fact that while no student group is doing well – white first-degree graduation rates being commonly in the 60-70% range in first degrees and well under 50% in national diplomas in the main subject areas – black graduation rates are in almost all cases below 35%, even in contact institutions. The net effect is that the progress made in equity of access is effectively nullified by lack of progress in equity of outcomes.

The current situation means that equity in higher education remains a key goal, both in itself – in the interests of social justice and stability – and as a necessary condition for development. South Africa's participation and performance patterns show clearly that equity will always have two components. The racially-skewed participation rates show that, despite growth in black enrolment, equity of access is still far from being achieved. Without equity of outcomes, however, equity of access is largely meaningless. It is the outcomes that count, for the individual and the society.

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[2] Technikons were still in existence when the cohorts studied entered the system. Although the institutional form has changed, the programmes they offered have continued, so the term 'technikon' is used here to denote these.

A status quo in which under 5% of 20 to 24 year-olds in the majority population group are succeeding in the public higher education system is not sustainable. The participation and performance patterns have major implications for policy, priorities and choices in higher education in South Africa, as discussed in the body of this chapter.

Significance of the performance patterns

The following are some summary observations on what the participation rates and performance patterns mean for the education system and the country:

- The graduate output of the higher education sector is not meeting the country's needs in relation to economic growth or equity and redress, with consequences for all forms of development. Improving graduate output, in terms of numbers, mix and quality, is essential for South Africa's future.
- The central shortcoming is that the system has not managed to transcend the apartheid legacy and is still not successfully accommodating the previously disadvantaged majority.
- The performance patterns are persistent, so increasing enrolment without improving the effectiveness of the educational process will perpetuate or exacerbate the wastage of talent, and/or will result in compromising quality and standards.
- It is clear from the participation and performance data that graduate growth must come mainly from the black and coloured student groups. Since, as the figures show, the majority of the students from these groups are failing to progress through the current higher education system, equity of outcomes is the key challenge.
- It follows that systemic educational approaches that are designed to address equity and educational diversity are critical for substantially improving graduate output to meet national needs. Thus the 'equity' and 'development' agendas (Wolpe, Badat & Barends, 1993) have converged, one not being achievable without the other.

The high stakes involved in addressing this situation justify concerted action. However, as there is contestation – explicit and tacit – about where and by whom such action should be taken, it is necessary to address this question before considering what is to be done, and what choices are involved.

Where does responsibility for improving student performance lie?

A key question that underlies attitudes to higher education performance is where responsibility lies for improving it. It is outside the scope of this chapter to discuss the merits of the various views on this issue in any detail, but the following is a brief outline of salient points.

It is widely agreed in South Africa that the performance of the school system, with its continuing inequalities associated with embedded socio-economic conditions, is the primary cause of students' being underprepared for conventional forms of higher education (e.g. Slonimsky & Shalem, 2005; Yeld, 2009). Universities commonly attribute the performance problems in higher education virtually exclusively to these

factors, which are beyond their control, and do not see it as the responsibility of higher education to compensate for poor schooling.

However, if the academic community is relying on improvement in external conditions to raise performance in higher education, it needs to realistically assess the prospects for such improvement. The analyses can be complex but the following points are relevant:

- Poverty is not going to be eradicated in the foreseeable future, and socio-economic conditions that give rise to educational inequalities and disadvantage will remain.
- A range of analyses strongly indicate that there is little or no prospect of substantial improvement in the outcomes of schooling, at least in the medium term and at least of the order that would deliver a sufficient number of well-prepared school-leavers to meet higher education's recruitment needs (Bloch, 2008; Scott *et al.*, 2007:31-37).

It is argued that, in these circumstances, it is necessary on pragmatic grounds for the higher education sector to identify factors affecting student performance that are within its control, and to act on these to the best of its ability. There is also an argument that, on the grounds of principle, higher education should take a share of the responsibility for transformation by doing whatever is reasonably within its control to successfully accommodate talented but disadvantaged students.

Whatever the argument, the higher education sector has a fundamental decision to make on whether it is willing to review its own mainstream practices with the purpose of addressing the realities of students' prior learning experiences, or whether it accepts the status quo. The following sections offer an outline of what might be done in higher education, and some key choices involved.

What is to be done? The significance of the first-year experience

If we look at the performance patterns with the aim of determining what can be done to improve them, the first undergraduate year clearly emerges as a key area for intervention. Not only is it the stage of greatest attrition itself, but shortcomings in first-year students' development of fundamental conceptual knowledge, academic literacies and learning approaches are likely to have a cumulative effect that leads to poor performance or failure in later years.

Because it must allow for important changes in learning mode, the curriculum in the first year, more consciously than in any other phase, has to be Janus-faced, looking back and forward. It is therefore important that the first year should be treated as a special but not discrete stage of the educational process. Particularly in the realities of the South African context, the first year has to be a platform for developing students' academic potential in new modes of learning, and consequently carries unique opportunities and attendant responsibility to the individuals involved and to the country. However, the design of the first-year experience must be based as much on

understanding of the student learning experiences that come before it as on the need to prepare for what is to follow. It is a key section of the educational pipeline.

As the performance patterns show, however, the challenges for undergraduate education do not stop at the first year. In fact, concentrating exclusively on the introductory undergraduate phase – including foundational provision – can have the unintended and highly undesirable consequence of just deferring failure, if articulation with the senior years is not smooth and if the educational process in these years is not effective.

Given the high stakes involved, then, it is important that the design and delivery of the undergraduate curriculum (with special reference to the first year) – and the key choices underlying its nature – should be judged against the significance and wider purposes of undergraduate education in the South African context. The following sections identify and discuss three broad choices that have a fundamental bearing on the character and outcomes of the higher education system.

Choice One: Who belongs in higher education in South Africa?

In South Africa, the interface between secondary and higher education is the first point in the system where completing the preceding educational phase does not entitle the learner to enter the next one. Admissibility to higher education is controlled by minimum requirements stipulated in national legislation, but equally importantly by the right of higher education institutions – enshrined in the Higher Education Act (DoE, 1997a) – to individually set their own entrance criteria. This means that there is choice, on the part of the state and the universities, about who is accommodated in higher education. The choice is of course constrained by considerations of affordability in terms of student numbers; but how the enrolment is made up is influenced by a range of factors that – apart from external ones like supply-and-demand and the constitutional mandate for affirmative action – arise from choices made within the academic community, such as in institutional missions and admission policies.

Perhaps the most fundamental factor, however, is psychological ownership of the student intake – that is, the extent to which the academic community intrinsically accepts responsibility for accommodating the student body that is admitted to the sector. As outlined earlier, South Africa's participation rates indicate that the black and coloured intake represents a selected group that should have a high probability of succeeding in higher education, yet there is a widely-held academic view that many of these students are 'not university material' and should not have been admitted. This view either conflates preparedness and potential, or reflects a belief that the university should not be expected to take responsibility for developing the potential of underprepared students. Underpreparedness can be addressed, but this is unlikely to be undertaken successfully if responsibility for it is not accepted or 'owned' by the academic community.

Beliefs about 'who belongs' in higher education have far-reaching consequences for institutional culture and how things are done in the design and teaching of the curriculum. There are of course critical differences within and between academic units and institutions, but the net effect of the choices determines much of the character and contribution of the institutions and the sector as a whole, thus powerfully influencing who benefits from higher education.

As the performance patterns and participation rates indicate, there are justified concerns not only about provision for the current intake but also about the capacity of the sector to accommodate future growth of the order needed to address pressing social and economic needs. This means that surfacing and publicly debating the choices being made is critical to the future direction of the higher education sector.

It is evident that the beliefs in the academic community about who belongs in higher education stem from deeply-held and possibly unarticulated ideology, values and world-views. However, notwithstanding insightful analyses of academic ideology (e.g. Becher & Trowler, 2001), there is a lack of research on relationships between values- or ideology-based academic attitudes and actual higher education practices in South Africa. Given the importance of the effects, such research is needed. In the absence of it, the following are observations arising from Academic Development (AD) experience in South Africa.

Broad clusters of beliefs in the academic community about who should be accommodated in higher education include the following:

- University education should be highly exclusive but there is inadequate or misguided control over admissions, so the first year in particular should function as a filter, rooting out students who are not university material. Associated with these views may be a pride in high failure rates as an indicator of high standards.
- In contrast, there are views, most frequently in institutional executive management, that espouse strong enrolment growth as a key means of increasing institutional income and prosperity. Such approaches are not necessarily accompanied by willingness to invest resources in facilitating the success of a wider student intake.
- A third cluster favours inclusiveness, for reasons of social justice and/or economic, social and cultural development. Where well-intentioned approaches are not followed through in institutional practices, however, there are usually unintended consequences that can negate the desired effects.

It is clear even at the surface level that these views and the interests behind them are in conflict. For example, the academic staff and management positions referred to in the first two clusters are in direct opposition when the staff see themselves as carrying the burden of growing enrolment without any worthwhile academic, professional or material *quid pro quo*.

Analysing the contrasting views depends on deeper exploration of the understandings and interests underlying them. For example:

- What ideas of intelligence or educability underlie strongly exclusive views, generally or in relation to specific areas of study? Is there acceptance that intelligence or intellectual capacity is randomly distributed across populations, or do views of differential capacities or aptitudes between ethnic groups remain, and if so, on what basis? Do these views distinguish between 'ability' (commonly regarded as a fixed attribute) and 'potential'? If so, what should be the response to the skewed participation and success rates in South African higher education?
- Similarly, do exclusive beliefs involve the view that the parameters of higher education study, including entry levels and assumptions, are universally standard? Are there specific forms and levels of mediation that are acceptable or unacceptable in higher education? What may be the implications of this for dealing with different levels of preparedness for undergraduate study?
- What understandings of ideas, such as 'academic potential' and underpreparedness, inform inclusive views? Perhaps more importantly, what is the understanding of student diversity and how it may be catered for in the educational process? Under what conditions, if any, should students from different educational backgrounds be treated differently in the educational process?
- How do the various viewpoints respond to the idea of higher education having obligations to address national needs? To what extent do South African institutions and academics endorse the recently expressed 'Oxbridge' view that universities cannot be used as 'engines for promoting social justice' (Harris, 2008). Similarly, to what extent is it higher education's responsibility to serve the needs of the economy?

The performance patterns suggest that the contending views on the identity and role of higher education in South Africa are not proving productive. Rather than leading to vibrant, generative debate and creativity, the conflicting positions seem to be embattled or resistant to informed argument. Given that these positions influence matters of great importance to many individuals and the country at large, their net effect should surely not be left in its current stasis. Clear leadership, informed by research and theorised argument, is needed to ensure that conflicting positions are identified and openly debated and their likely consequences confronted – not in the expectation that ideological differences will be resolved, but rather so that creative responses may be identified as a basis for transparent and justifiable policy-making and implementation.

The question of who belongs in higher education in South Africa is central in this. Likewise, what should drive the choice? Is it a traditional conception of who is prepared for standard forms of higher education, or a conception of what the country needs? There are tensions and risks in both.

Whatever decisions are reached on who belongs, it is essential that they be followed through responsibly. As argued earlier, in circumstances of diversity linked to inequalities, focusing on access alone has strongly negative consequences for outcomes. Genuinely accommodating the diverse intake that is needed for development means ensuring that the educational process, in terms of design and teaching practices, is

aligned with the students' legitimate learning needs, so that they have a reasonable chance of succeeding. Access without success is a hollow achievement, does little or nothing to meet South Africa's social and economic needs, and may erode public support for the higher education sector.

This chapter has argued, on the basis of the performance patterns, that it is essential for the higher education sector to accept responsibility for genuinely accommodating at least the current student intake. The choice made about 'who belongs' has profound consequences for the identity of the sector and its contribution, and for the approaches to teaching and learning needed to fulfil the sector's obligations. The following sections outline some key choices about the educational process that need to be made in order to follow this through.

Choice Two: The shape of the undergraduate curriculum

The curriculum – its nature, content and organisation – is fundamental to the educational process, enacting the faculty's educational philosophy and purposes. The broad structure and parameters of the formal curriculum constitute a framework that strongly influences what can be done in the teaching and learning process, which in turn strongly influences who succeeds and fails in it. The design of the curriculum framework is therefore enabling or limiting for different student groupings, depending on the extent of alignment between the assumptions of the curriculum and the preparedness, capabilities and orientation of the students.

Given the wide variation in curricula internationally, it is clear that the way they are constructed is subject to choice. In South Africa, the macro-structure – for example, the minimum duration, minimum entry level and basic credit system – is determined by the state through the qualifications framework, reinforced by the public higher education funding system. History, custom and social factors, such as what the labour market, professional bodies and the public are used to, have the effect of maintaining stability (or inertia) in the macro-structure. Changing the qualifications framework is thus a significant undertaking, but it is feasible if the will to change is sufficiently strong, as shown by the Bologna Process curriculum reform initiative in the European Union (see, for example, European University Association [EUA], 2008).

The performance patterns outlined earlier point to a mismatch between the existing system and the profile and learning needs of the majority of the student intake. This mismatch is most evident at the interface between secondary/further and higher education. The 'articulation gap', which is seen as a major cause of under-performance and failure at first-year level and beyond (DoE, 1997b; Scott *et al.*, 2007:42-43), is a systemic fault that is manifested in a range of ways, including a shortage of qualified candidates for key programmes, particularly high first-year attrition, and the fact that only a minority of contact students (well under one-third) graduate in the regulation time formally allocated to degree and diploma programmes.

The latter phenomenon is widespread across qualification types and subject areas. Leaving aside distance education, in the main subject areas the rate of graduation in

regulation time is largely in the 20-30% range in general three-year degrees, mainly under 35% in the 'elite' four-year professional degrees, and well under 20% in national diplomas. As in the other performance patterns, there are major disparities by race. Table 1.1 illustrates the generally low rates and the particular severity of the position in relation to black students.

Table 1.1 Graduated in regulation time (3 years): General academic first B-degrees, excluding UNISA

Subject area (CESM)	Black	White
Business/Management	11%	43%
Life and Physical Sciences	11%	35%
Mathematical Sciences	13%	33%
Social Sciences	14%	43%
Languages	13%	52%

Source: Scott, Yeld and Hendry, 2007:26

It is clear from the figures that the great majority of students, particularly black students, are not able to follow the standard degree and diploma curricula as they were planned and designed. In other words, the structure of South Africa's core undergraduate qualifications is not effective for the majority of the current intake. It will become increasingly less effective in future if there is growth in enrolment, which will mean a higher proportion of underprepared students being admitted.

Detailed discussion of curricular shortcomings is beyond the scope of this chapter but some summary points can be noted:

- Given South Africa's demographics and persistent inequalities, the student intake into many individual universities, as well as the sector as a whole, is necessarily highly diverse, to the extent that it is probably not possible for any inflexible, one-size-fits-all curriculum structure to meet the learning needs arising from such different educational and linguistic backgrounds.
- A key shortcoming is that the 'looking back' aspect of first year's Janus-like character has been neglected for a long time. The assumptions on which traditional first-year courses are based originated in a period when the intake was predominantly homogeneous and privileged, and have not changed to match the major diversification of the student body over the last three decades. The continuing emphasis on what prior learning experience entrants 'ought' to have gained disadvantages even the most talented students from different realities.
- Some encouraging success has been achieved with foundational provision and extended curriculum programmes, which directly address the systemic articulation gap through taking account of the realities of students' prior learning rather than the 'oughts'. Valuable lessons have been learned from this work over the last two decades, confirming the need to 'look back' but also underlining the importance

of following through on well-designed introductory courses by reviewing the structure of the rest of the curriculum. Issues arising from student diversity do not disappear in the senior years.

- Extended curriculum programmes have been used by most institutions as a means of extending access to students who do not meet regular admission criteria, rather than for improving the success rates of at-risk 'mainstream' students. The performance data show that there are large numbers in the latter category who fail or drop out, and it is this category in particular that would be most likely to benefit from a different curriculum structure.

In short, AD experience, supported by the performance patterns, indicates that because of failure to effectively address the diversity of the intake and systemic problems, such as the articulation gap, the traditional curricula are an obstacle to success for large numbers of students, arguably the majority. This points clearly to the need for mainstream curriculum reform, including extending the formal time allocated to core degree and national diploma programmes.

Curriculum reform of this kind – in shorthand, moving to the 'four-year degree' as the norm – must focus primarily on the central issue of successfully accommodating the majority. However, it would also be a unique opportunity to create curriculum space for meeting key contemporary needs, such as:

- allowing for diversity of educational background through a flexible structure;
- balancing breadth and depth through enabling students to experience a wider range of subjects – or fresh perspectives on apparently familiar ones – before having to commit themselves to a specific disciplinary direction;
- balancing the local and the international; and
- allowing for the development of capabilities in academic, quantitative and information literacies and in a local or foreign language.

Additional curriculum space is particularly important in the introductory phase of higher education. There are certain critical aspects of learning that are most effectively addressed at this level, including the development of concepts, skills and epistemological understandings that are foundational to successful tertiary study.

Choice Two comes down to a preliminary and a substantive question:

- In whose interests is it to maintain the status quo in the curriculum?
- Do we – the state and the academic community – have the vision and the will to make the effort necessary to change our inherited curriculum structures to meet contemporary South African needs?

Choice Three: Giving value and 'attention' to the educational process

As said earlier, the undergraduate years, especially the first year, are potentially a time of great intellectual stimulation and personal growth. However, it would be hard to claim that the higher education system is doing justice to the opportunities and responsibilities involved when so many students are diminished by the experience.

Perhaps the core challenge in this regard is for the academic community to accept that the way it chooses to do things in the design and delivery of the curriculum makes a material difference to outcomes. There is evidence locally and internationally that institutional ethos and approaches to the education process are a key variable in who succeeds and fails in higher education. An apposite example of a recent exploration of this topic is a study on the performance of minority students in American higher education institutions, undertaken by the Washington-based Education Sector (Carey, 2008). A central finding is expressed as follows: 'If there is a single factor that seems to distinguish colleges and universities that have truly made a difference on behalf of minority students, it is attention' (Carey, 2008:8).

What constitutes this 'attention'? It has much to do with effort arising from attaching due importance to undergraduate education. It goes beyond this, however, into valuing and undertaking sustained educational inquiry – the scholarship of teaching and learning. As the Carey report goes on to say of the successful institutions, 'Essentially, they apply the academic values of empiricism and deep inquiry to their own practices' (Carey, 2008:8).

In the South African higher education context, a major focus of attention needs to be on developing and implementing mainstream course design and teaching approaches that cater effectively for the realities and diversity of the student body. Along with establishing enabling curriculum structures, this is an essential condition for substantial improvement in the number, quality and mix of the country's graduates. Achieving it depends considerably on systematic knowledge of teaching and learning. The craft knowledge, on which so much higher education teaching has depended, has major limitations in meeting the challenges of contemporary South African teaching and learning conditions, which are more complex than the traditional settings that shaped the experience of many of our current academic staff. Finding fresh approaches calls for educational expertise as well as effort.

How then might this kind of attention be achieved in the South African context? The change strategy needed to influence the prevailing academic culture is clearly complex and multifaceted, calling for a coordinated approach. If educational effort and expertise are to grow, they must be accepted as being important in the sector. This in turn depends on conditions of the following kind:

- the establishment of reasonable and productive professional accountability for the outcomes of the educational process;
- increased status for educational expertise as a key expression of scholarship (Boyer, 1990), manifested in recognition and reward systems;
- recognition of the importance of different academic roles in enabling universities to meet their obligations to the country, respecting specialisation in teaching and social engagement as well as research;
- acknowledgement of education-related research as a valid and intellectually challenging field; and

- the establishment of funding streams and nationally-supported structures for advancing professional development and educational expertise and innovation.

Embedded tensions in academic identity – such as the tension between teaching and research, and between a focus on local needs and participation in the international world of scholarship – frame Choice Three: Is the academic community willing to take its share of responsibility for producing the graduates that the country needs for its social, cultural and economic well-being, and to recognise and respect educational expertise as a key means to that end?

In summary

Three broad conditions that are within the power of the higher education sector (the state, the institutions and the academic community) to put in place are:

- understanding who belongs in higher education in South Africa on the grounds of potential, social justice and national development needs;
- aligning the design of the system with the learning needs of the full range of the intake that the sector should accommodate, with particular reference to the still-marginalised majority;
- dealing creatively with the diversity of the student body through teaching approaches that are effective in the South African context.

The three choices underlying the establishment of these conditions are clearly interdependent: curriculum renewal, for instance, will have diminished value if the academic community does not collectively take psychological ownership of responding to the country's needs, or is not prepared to 'apply the academic values of empiricism and deep inquiry' (Carey, 2008:8) to the educational process in higher education.

The argument in this chapter advocates which way the choices should go. Whether they are made consciously or unconsciously, the choices have far-reaching implications for the nature of the higher education sector and who benefits from it. They affect national policy, and it is important to assess what direction current policies are taking us in. To what extent are they focused on the priority of improving graduate output? To what extent are recent policies or initiatives (such as the conversion of technikons to universities of technology, the push for PhDs, moves towards institutional differentiation or 'de-differentiation', the funding of teaching and research, the Department of Science and Technology (DST) chairs) consistent and 'joined up'? What is likely to be their net impact on the effectiveness of the sector ten years hence?

Just as importantly, the choices apply to institutions, departments and individual academics. The aggregated results of these choices make up the contribution of the sector as a whole, so are critical to social justice, stability and development.

In conclusion: Why is it so hard?

The choices delineated here are clearly not regular strategic ones but involve deep-seated matters of values and identity. They are affected by enduring tensions, not only the high-level ones mentioned earlier, but also those between inclusive and exclusive private ideologies and between personal advancement and public service. Given the nature of the academy, they cannot be successfully engineered or replaced by diktats.

The choices that are being made in the higher education sector at present, and which are resulting in the disturbing shortcomings in educational opportunities and achievement discussed in this chapter, suggest that prevailing academic values and identity are tilting away from inclusiveness and serving local needs. Can the compelling need shown up in the performance analysis produce attitudinal change that will lift the value of education in higher education, and facilitate a constructive Boyerian balance between the main academic roles?

The difficulty of meeting this challenge is increased by the wedge between research and undergraduate teaching that is being driven by aspects of international academic culture and institutional and individual self-interest that undervalue public service. However, there are some countervailing possibilities as well. For example, well-articulated national policy and funding can make a significant difference to what is accepted as important. Also, the critical issue of how research and undergraduate teaching can be mutually enriching rather than dichotomised is gaining attention – and increasingly sophisticated analysis – in a range of settings, albeit mainly in developed countries (see, for example, Marwell, 2007). Perhaps most significantly, contemporary pressures on developing countries, arising particularly from democratisation and economic globalisation, may add new dimensions to thinking about the purposes of higher education, and impel a fresh understanding of the importance, feasibility and intellectual challenge of realising academic potential in marginalised groups. This kind of consciousness is present in a range of countries, including South Africa, but needs to be formulated into a comprehensive and theorised position, going beyond dependence on rhetorical argument, if it is to offer a credible alternative to the Oxbridge stance that sets access to university education apart from developmental needs (Harris, 2008).

The extent to which academic conservatism is entrenched in the South African academic community is not known. Its apparent prevalence may be because the key choices reflecting the higher education sector's identity and values have not been made explicit, and their likely consequences remain largely unanalysed. The true test will come only when the choices are clear.

Given the high stakes involved, it is critical that the options for policy and practice, including possible compromises as well as hard choices, should be delineated, analysed and openly debated. Initiating this is in the first instance the responsibility of the state and national higher education bodies. However, the institutions and the academic

community owe it to the country to give attention to the issues and the consequences of their choices.

Referring predominantly to the developed North, Stephen Rowland (2006, 2007) argues that contemporary pressures on higher education, exerted through phenomena, such as market forces, managerialism and wider social developments, have fragmented the core academic project, and that it is vital for conditions to be created that make it possible for academics to choose, for reasons intrinsic to their identity, to return to a holistic understanding and practice of their disciplines, which would remove dividing lines between teaching and research. Integrity, in its two senses of 'bringing together' and 'soundness of moral principle' (Rowland, 2007:2), is central to academic identity and resolving tensions between the core academic roles of teaching, research and social responsiveness. Given the shortcomings in higher education discussed in this chapter, Rowland's central question, 'How can academic work be conducted with integrity?', is pertinent to South Africa as well.

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CHAPTER 2

SMALL STEPS TO A BIG IDEA

PERSONALISING THE POSTSECONDARY EXPERIENCE

PETER DIETSCHE

This paper argues for a new way of providing postsecondary education (PSE) to learners around the world. The processes that exist in most institutions today are based on a 20th century industrial age model that largely ignores student diversity and delivers a 'one size fits all' learning environment. This is despite student populations in postsecondary institutions becoming much more diverse. The substantial improvements in educational attainment that many suggest are necessary to support our current knowledge-based economies can therefore only be achieved by adopting a 21st century delivery model based on information and communication technology (ICT). This model accommodates diversity, focuses on individual learners and creates personalised learning opportunities and experiences.

Evidence to support this argument is drawn from a variety of sources. These include the writings of both early and current theorists regarding student achievement and retention in PSE, as well as reform movements that have won favour within higher education over the past several decades. Research on the outputs of higher education, student characteristics and the student experience constitutes a third line of evidence. Each is a small step to a big idea, and taken together the message is clear: any desire to substantially improve PSE completion rates requires a significant change in the way higher education institutions interact with students, create learning environments and engineer opportunities for specific experiences.

Evidence from theory

The idea is not new. The essential elements were articulated in the late 19th and early 20th centuries in Emile Durkheim's 1897 *le Suicide* (Durkheim, 1951) and John Dewey's 1938 *Experience and Education* (Dewey, 1938). Durkheim argued for the importance of social networks, interpersonal interactions and community as

the key to integrating and retaining individuals in social contexts. Dewey made the point that an individual's experience in a new situation was the product of their past experience and the characteristics of their current context. Some decades later, the work of Tinto (1993) and Pascarella and Terenzini (1991, 2005) developed models of student departure and achievement that built upon and extended the earlier work. Contemporary theories of student development and retention have several elements in common and all emphasise the importance and impact of student diversity on educational outcomes. Also highlighted, and explicitly reflecting Dewey's work, is the centrality of the student-institution interaction in promoting student retention and success.

Alexander Astin (1985) has argued for a change in how excellence is measured in higher education. He suggested that PSE institutions should move from measuring inputs to measuring 'talent development' as an indicator of success. His research showed that talent development was influenced by institutional policies, processes and practices that promoted student involvement. According to Astin, institutions with policies and practices specifically focused on involving students in the experience of the academy would be more effective in promoting learning or developing student 'talents'.

Movements in postsecondary education

Every once in a while, the writings of a particular theorist or educational philosopher are transformed into a reform movement or zeitgeist. Several from the past fifty years are germane to this discussion and supplement the theoretical argument for a new model of PSE delivery. The four briefly discussed here can be seen to be making similar points regarding directions for reform. They articulate their arguments in different ways, however, they all emphasise the importance of individual learner characteristics, needs, experiences and attitudes.

Combs (1978) described the basic tenets of the *Humanistic Movement* of the 1960s and 1970s, in part, as follows:

- Accepts the learner's needs and purposes and develops experiences and programmes around the unique potentials of the learner.
- Personalises educational decisions and practices. To this end it includes students in the process of their own education.
- Recognises the primacy of human feelings and utilises personal values and perceptions as integral factors in educational processes.

An emphasis on learner diversity, involvement and inclusion in educational processes is clearly evident here. The role of student affect is also stressed as a key influence on learning.

During the 1980s, the idea of the *Learning College* was described in detail by O'Banion (1995). The model is based on the assumption that educational experiences are designed for the convenience of learners rather than for the convenience of institutions and their staff. According to O'Banion, a learning college is characterised by six key

principles with the following three being relevant to the current discussion. O'Banion suggests that a learning college:

- engages learners as full partners in the learning process, with learners assuming full responsibility for their own choices;
- creates and offers as many options for learning as possible; and
- assists learners to form and to participate in collaborative learning activities.

As with the Humanistic Movement, the Learning College emphasises partnering with learners, creating diverse learning opportunities and recognising the importance of engaging students in active/collaborative academic and social activities.

Invitational Education (Purkey & Novak, 1996; Purkey & Schmidt, 1996), a movement of the 1990s, is a theory of practice that maintains that every person and everything in and around schools and other organisations adds to or subtracts from the process of being a beneficial presence in the lives of human beings. Ideally, the factors of people, places, policies, programmes and processes should be so intentionally inviting as to create a world in which each individual is cordially summoned to develop intellectually, socially, physically, psychologically and spiritually.

Based on perceptual psychology and self-concept tenets, Invitational Education provides a model of educative practice to help people realise their potential in all areas of worthwhile endeavours. Purkey and Novak (1996) further identified three assumptions of the perceptual psychology approach that are relevant to working with individuals in a school setting:

1. Behaviour is based on perceptions: Individuals behave according to their subjective perception of the environment (internal and external).
2. Perceptions are learned: One's interpretation of the environment is learned and therefore can be unlearned given new information and new experiences. This particular assumption embraces the idea that a change in perception will bring about a change in behaviour.
3. Perceptions can be reflected upon: Being aware of one's past and present perceptions and being able to go beyond them allows for further development and understanding of oneself, others and the world.

Invitational Education emphasises that teacher beliefs and attitudes about people, including trust and respect, are paramount in enabling the learner to become his/her best self. Respect and trust are defined as follows:

- Respect: People are able, valuable, and responsible and should be treated accordingly.
- Trust: Education should be a cooperative, collaborative activity where process is as important as product.

As with the Humanistic and Learning College models, the Invitational Education movement emphasises the centrality of the individual learner, the importance of engaging the learner in the educational process, and his/her perceptions of

learning environments based on interactions with key players such as teachers and counsellors.

A recent development, *Strengths-based Education* (Clifton & Nelson, 1992), involves a process of assessing, teaching, and designing experiential learning activities to help students identify their greatest talents, and to then develop and apply strengths based on those talents in the process of learning, intellectual development and academic achievement to levels of personal excellence.

Strengths-based Education is built on the concept of individualisation, which involves educational professionals considering and acting upon the interests and needs of each student and then systematically personalising the learning experience (Gallup, 2003; Levitz & Noel, 2000). Such practices identify and marshal each student's academic and psychological resources to maximise their opportunities for educational success.

While each of these movements approaches the topic of student learning from a somewhat different perspective, they share many similarities. All stress the importance of student diversity and the need for educational institutions to recognise and accommodate strengths and weaknesses. Each highlights the importance of engaging learners as key partners in the learning enterprise by using multiple strategies attending to their affective and perceptual responses to learning environments and opportunities.

The main points articulated by the various movements reviewed are consistent with the theoretical frameworks discussed earlier, and together provide a convergent message regarding promising approaches to improving educational outcomes in systems of postsecondary education. A focus on learners and their experiences within an institution is paramount.

Research evidence

Research constitutes a third line of evidence to support an argument for increasing rates of learner achievement and success by personalising the student experience. Relevant findings include:

- current rates of university degree completion nationally and internationally;
- research on the characteristics of postsecondary learners and student diversity;
- the student experience and factors influencing learner engagement; and
- student preferences for different models of educational delivery.

Research on current PSE graduation rates highlights the need for an alternative model. The Organization for Economic Cooperation and Development (OECD) (2008) estimates that almost one in three students who begin a tertiary degree do not complete their programme. For individual countries, completion rates vary from a low of 47% to a high of 85%. Many agree these rates are untenable, especially within the context of today's knowledge-based economies, which rely upon an ample supply of highly skilled human capital.

While it is difficult to assess the precise contribution of human capital *per se* to productivity growth, investment in education and skills is central to innovation, and at a minimum, facilitates the introduction of productivity-enhancing new technology and new forms of work organisation (OECD, 2005). The OECD has shown that increased educational attainment of the work-force raises the rate of real economic growth. In addition, employer investment in training has been shown to have significant positive impacts on firm-level productivity (Bartel, 2000). It is imperative, therefore, that both developed and developing countries strive to increase the number of students who complete their tertiary level studies.

An additional line of research evidence supporting an alternative model of PSE delivery focuses on the characteristics of students who attend colleges and universities today. The early work of Boyer (1987), Astin (1993), and more recently that of Pascarella and Terenzini (1991, 2005), consistently highlights the diverse nature of the postsecondary student body. Table 2.1, developed from a survey of first semester Canadian college students, which was sponsored by the Association of Canadian Community Colleges (ACCC) and Human Resources and Skills Development Canada (HRSCD) (ACCC-HRSDC, 2007), illustrates that many view their level of proficiency to be fair or poor in various skill areas critical for academic success.

Table 2.1 Self-reported skill proficiency

Skill proficiency of students at college entry				
Skill area	Self-reported proficiency rating (%)			
	Poor	Fair	Good	Very good
Comprehend language of instruction	1	6	40	53
Writing ability	2	16	49	33
Reading ability	1	11	44	44
Mathematical ability	8	28	39	25
Time management	4	25	48	24
Note/test taking	3	19	52	26
Study skills	5	29	50	16

Source: College Entry Survey, 2005

Survey results show that one-fifth to one-third of students new to college reported a skill level that would likely require the use of institutional support services to ensure academic success. Clearly, the college experiences and prospects for success of these students would be quite different from those who reported a skill level of good or very good. This would be especially true for those who reported a low level of proficiency but did not make use of campus support services.

Indeed, the reality is that most students do not utilise the services they say they need. One study (Dietsche, 1999) has shown that approximately 10% of students who say they need help in a specific area use the related service during the first semester on campus. This is likely due to a variety of factors; however, the passive rather than proactive model of support services delivery utilised in many postsecondary institutions no doubt plays a role. Within this context, it is not surprising that the experience of these underprepared students is quite different from those who arrive on campus with the requisite skills to be successful (Dietsche, 1990).

A third line of research evidence to support the current argument is derived from the significant volume of research on the role institutional environments play in influencing student development and the academic experience. Pascarella and Terenzini (2005) summarised this research and suggested several broad conclusions. First, institutional environments that stress frequent student-faculty interaction facilitate knowledge acquisition. Second, environmental factors that maximise persistence and educational attainment include a peer culture in which students develop close on-campus friendships. Finally, environments that emphasise student involvement in classroom discussions and with faculty in an academic community appear to maximise overall psychological adjustment and maturity.

Specific academic experiences were also found to impact student learning. For example, instructional strategies, such as peer teaching, and individualised learning approaches, such as Personalised System of Instruction, were found to enhance knowledge acquisition. In addition, student learning showed an unambiguous link to instructor or teacher classroom behaviours, such as clarity of presentation and course organisation.

The research summarised in the previous paragraphs is strong support for the argument that postsecondary institutions, by intentionally organising and structuring learning opportunities and experiences, can dramatically influence student development and educational outcomes more generally.

A final source of support for intentionally 'engineering' the student experience in postsecondary institutions comes from students themselves. Richard Light, in *Making the Most of College: Students Speak Their Minds* (2001), shows how a policy of inclusion at Harvard University had a dramatic effect on the student experience. He concludes his book by suggesting that the Harvard result is a specific example of a more general principle to be followed by all campus leaders – that of intentionally shaping campus cultures. He argues that the main role of leaders is to make a thoughtful, evidence-based, purposeful effort to shape campus cultures in order to engage learners in specific experiences and thereby achieve desired outcomes. Light's interviews with Harvard undergraduates proved the strategy to be extremely effective.

The author has also sought out the student voice in an ongoing qualitative study conducted by graduate students over the past decade (Dietsche, 2005). Over 300 interviews have been completed to date. In brief, as part of a course assignment, each graduate student was required to conduct semi-structured interviews with two postsecondary learners. A portion of each interview gathered information from the

learners on their expressed preferences for different models of postsecondary delivery. Table 2.2 identifies the main models. Once the interviewer had defined each model, the subject was asked which one he/she would prefer to experience.

Table 2.2 Student preferences for PSE delivery

Interview subjects	Model of PSE delivery				
	In-Loco Parentis	Academic Darwinist Model	Collaborative model	Collaborative + Academic Darwinist model	Collaborative + In-Loco Parentis model
Female (n=178)	1% (2)	3% (6)	91% (162)	3% (6)	1% (2)
Male (n=146)	3% (4)	7% (12)	82% (120)	7% (10)	0%
All (n=324)	2% (6)	6% (18)	87% (282)	5% (16)	1% (2)

As Table 2.2 shows, the majority of those interviewed indicated a preference for the collaborative model. The collaborative or partnership model was defined as having the following components:

- The student enters the institution where individual needs, abilities and interests are assessed.
- A unique programme of learning and support activities is offered to each student.
- Students are proactively notified of services that could improve their chances of success.
- The student and the institution are in an equal 'partnership' for success.

It seems that most learners would prefer to engage their college or university in a partnership in which both parties work together to build success for both the student and the institution. The critical component of this partnership is a personalised institutional response to learner characteristics based on information they provide about themselves through assessments conducted at critical points over the course of the first year. The effect is to create unique learning opportunities and experiences that increase the likelihood that students will become involved in the academy.

Current practice in personalised student experience of postsecondary education

The evidence we have presented supports the idea of engineering a personalised student experience of postsecondary education and that an improvement in completion rates will follow. A few institutions around the world have been successful in demonstrating this in various ways.

Valencia Community College: USA

Valencia Community College in Orlando, Florida has implemented a *LifeMap* approach to working with students to promote success. Published data (Shugart, Romano & Joyce, 2006) indicate that following the implementation of LifeMap, there was an increase in fall-spring retention from 65% (1994-95) to 79% (2005-06). Increased persistence in developmental courses from 62% (fall, 1994) to 90% (fall, 2005) was also observed.

College of the North Atlantic: Canada

Located in the Canadian province of Newfoundland, College of the North Atlantic has adopted an *Access for Success* approach to promoting student achievement. The combination of an on-line assessment system with an academic advising programme has proven to be effective in promoting retention, student perceptions of their institution and greater satisfaction on the part of advising staff. Most importantly, at one campus there was a 10% increase in student retention over a three-year period following implementation.

Stellenbosch University: South Africa

In each of the two previous cases, the key to success was gathering information from prospective learners and responding with a thoughtful, evidence-based, purposeful effort to shape campus cultures in order to engage learners in specific experiences. The experiences influence attitudes and these in turn influence behaviour. The availability, therefore, of an effective assessment tool is one requirement for any such initiative. The Stellenbosch University has created an *on-line student assessment system*, which has contributed to the prediction of academic success. Continued development of such systems will be of tremendous benefit to all stakeholders who are interested in improving the completion rates in institutions of higher learning.

Future directions

Steps forward: Leadership

At the end of the day, educational change is about leadership. However, substantive change requires substantial leadership, at all levels. All stakeholders are implicated: faculty, who have the most contact with students; student associations and student governments who represent the interests of the most numerous constituent group on campus; administrators who decide on operational policy and allocation of campus resources; and government politicians and bureaucrats who oversee systems of education.

Certain themes, however, consistently emanate from the literature and suggest several concrete steps likely to smooth the way forward.

- *Evidence-based decision making*
  Evidence-based decision making is the injection of information derived from institutional self-study into campus debates regarding policies, processes and resource allocation. In particular, information on the characteristics and experiences

of new students should inform decisions regarding organisational structure, policy, and function.

- *Staff development / Centre for Teaching and Learning*
  The research evidence summarised by Pascarella and Terenzini (1991, 2005) indicates that some of the change on campus will be with faculty. The use of new technologies, different methods of instruction, alternate forms of student assessment and new ways of engaging students require institutional resources to support faculty development.

- *Policy frameworks*
  Barefoot *et al.* (2005) have identified specific institutional policies associated with higher rates of student success and completion. Nine policies, termed 'Foundations of Success', focus on institutional intentionality in optimising the student experience during the first year. Implementing all nine policies institution-wide would, the authors argue, increase rates of student completion.

- *Values and culture*
  It goes without saying that policies are simply guidelines for staff behaviour. Because they have been passed by some esteemed campus group does not necessarily mean they will be adhered to. What determines whether they are is tied to institutional values and culture – and these are closely tied to institutional leadership.

Conclusion

This paper has marshalled evidence from diverse sources to propose a new paradigm for promoting learning in PSE. It is one where learners, from the first point of contact, form an explicit partnership with the postsecondary institution they attend. The partnership is focused on the success of both the learner and the institution. In both cases, success is marked by the students' successful completion of their programme of study. The critical component of the partnership is a personalised institutional response to learner characteristics based on information they provide about themselves through assessments conducted at critical points during the first year of study. The role of the institution is to respond with thoughtful, evidence-based, purposeful efforts to shape campus cultures and engage learners in specific experiences. The effect is to create learner-specific opportunities and experiences that increase the likelihood that students will become involved and succeed in the academy.

A few institutions, which we have highlighted, have made significant progress in actualising the concept of personalising the postsecondary experience but this is only a beginning. As more stakeholders within higher education, especially those in leadership positions (Light, 2001), become aware of the supporting evidence and benefits, change will accelerate. The promise is great. Not only will completion rates for institutions of higher education improve, so too will the educational experience of thousands of students who otherwise might have floundered, faltered or failed during their first year of college.

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CHAPTER 3

MAKING SENSE OF FIRST-YEAR STUDENT LIFE

TRANSITIONS AS ETHNOGRAPHIC PROCESS

PAUL GREEN
ANNETTE CASHMORE
JON SCOTT
GEETHA NARAYANAN

Introduction

Substantial research exists on the first-year student experience in the United Kingdom. As Palmer, O'Kane and Owens suggest, the research shows that this aspect of student life is now viewed as a high-priority research area, 'not least because of the significant consequences of student attrition and failure upon university reputations and finances' (2009:37). A significant amount of quantitative data, in the form of questionnaires and surveys, has provided insights into important and emerging issues of student retention, assessment and feedback on the quality of teaching and learning in higher education. The methodology underpinning much of this research, however, offers limited understandings of how and in what ways students actually live, breathe and embody the first-year experience. Even where questionnaire design offers a free form response, such research tends to reflect and reinforce 'top down' policy and institutional concerns of quality assurance and accountability. The ways that students *experience* the student experience are, in effect, circumscribed by the inclination of contemporary universities to categorise students as learners, citizens, colleagues, consumers and partners (Dall'Alba & Barnacle, 2007:679).

This paper builds on social anthropological expertise and insight to illustrate the extent to which the methodology at the heart of a research project can inform pedagogic theory. Specifically, we highlight the ways in which an ethnographic approach to understandings of the first-year student experience offers fresh theoretical and empirical insights into student transitions. This chapter reflects on the initial research findings of the Student Experience Project in terms of empirical research data. The Student Experience Project represents an important example of GENIE's pedagogic project work at the University of Leicester. GENIE (Genetics Education Networking

for Innovation and Excellence) is a genetics education Centre for Excellence in Teaching and Learning (CETL) located within the Department of Genetics at the University. The project currently involves two cohorts of undergraduate students located within the School of Biological Sciences. The students have been provided with portable, hand-held video cameras, which they use to submit video diaries to the research team. The video diary data is complemented by the involvement of the same students in focus groups.

Ethnography and the first-year student experience

Ethnography may have its epistemological roots in sociology and especially social anthropology (Gupta & Ferguson, 1997), but professionals in a variety of educational settings are now using it as a research method. The recent emergence of an international peer-reviewed journal, *Ethnography and Education*, reflects the extent to which ethnography is now viewed as a valid basis for pedagogic inquiry.

With funding and time constraints in mind, questions arise as to whether this methodology is suited to studies in and of education. Anthropologists in particular are adept at defending their disciplinary territory by critiquing the contemporary use of what is variously termed as 'fast-food,' 'drive-by' or 'para-' ethnography (Holmes & Marcus, 2006). A particular strength of the Student Experience Project, however, is that it abides by a traditional anthropological principle, which suggests that good quality research can only be achieved by spending a significant amount of time with people in the 'field' (Marcus, 2007). In this sense, the project surpasses conventional expectations within anthropology of conducting research for perhaps a year or eighteen months. Indeed, it is hoped that students involved in the project will commit to providing insights into the various social, academic and transitional experiences of their lives for the duration of the three to four years spent at university.

The regular submission of video diaries by students, in turn, offers three particular strengths in our attempts to enhance our understanding of the first-year student experience. Firstly, this approach offers insights into the student experience *from the perspective of students.* This emphasis on a student rather than a managerial-side focus on experiences and transitions (Palmer, O'Kane & Owens, 2009:39) is increasingly valued by researchers such as Wilcox, Winn and Fyvie-Gauld (2005). This approach is also valued by some students on the project. As one female student put it at the start of the project, 'It's really cool that we can actually send in these videos and it's like us being heard 'cos first years at university are normally never listened to.' The use of video cameras, therefore, allows students to reflect on the student experience on their own terms and in ways that are not compromised by managers and policy-makers and their concerns over, 'the attrition problem' (Palmer *et al.*, 2009:39).

Secondly, by creating through the time and times spent in the key social and symbolic spaces of 'home' and 'university' (Holdsworth, 2006) the students offer nuanced insights into the various and ongoing transitions in their lives *as they are actually happening.* We are able to capture the often emotive feelings and perceptions of students in the 'here and now' of thinking about revision, of waiting for a demanding

first semester to end, of being at home during holidays, and so forth. This use of video cameras offers insights into the student experience that are not easily captured by research methods located in a specific time and place. An attempt through interviews to ask students to reflect on the passing of their first year at university, for example, is compromised by significant methodological flaws. In the field of oral history it is well established that memory is constructed and distorted by concerns of the moment (Portelli, 2006). The use of video diary data also illustrates the extent to which students experience different and often contradictory thoughts and feelings at different points in a given academic year. This raises further questions about the validity of 'single response' data, which we suggest offers only partial insight into the shifting complexities of student worldviews.

Finally, the use of portable video cameras provides a basis to transcend the assumption that, 'because students are *at* university they sit inside or are located *within* the university boundaries' (Palmer *et al.*, 2009:40). This assumption about social and spatial boundaries, we argue, circumscribes the ability of researchers to fully explore questions and issues of transition, belonging and retention. By providing the students with portable video cameras, the Student Experience Project gains access and insight into the multiple sites, spaces and sources of being and belonging in their lives. Through this visual ethnography in and of movement (Pink, 2007) we are able to understand how students build, re-build and sustain attachments to people, places and other sources of being and identity in ways that are not simply defined by their connections to university and university life. In this sense, the video footage has provided rich data of students at 'home,' visiting their 'home' friends at other universities, being in concerts and nightclubs, attending student church events in other cities and taking part in voluntary schemes.

To summarise, the ethnographic framing of this research offers three particular strengths. Firstly, it offers an understanding of the first-year experience from the perspective of students and not policy makers and managers whose priority is to *manage* the student experience and related attrition problems. Secondly, there is a *temporal* dimension to the project, which enables us to explore student experiences, emotions and transitions as they are actually happening instead of relying on memory or a single response from students through questionnaires. Finally, there is a *spatial* dimension to the project, which transcends assumptions that student life is exclusively defined by the social and symbolic boundaries of university and campus life. We will now briefly address the methodology of the project in more detail.

Methodology in practice

During the 2007-08 and 2008-09 academic years, two cohorts of first-year undergraduate students were recruited to the project. This section concentrates on the involvement of the first cohort. For the most part, it is their research data that informs the findings and insights of this paper.

Twenty students signed up for the project at the beginning of the 2007-08 academic year. The students enrolled in the project undertook various degree programmes within

the School of Biological Sciences. There was a fairly even split of eleven males and nine females. Four of the students were 'home' students and originated from Leicester. An international Chinese student also enrolled on the project. The remaining fifteen participants followed the still traditional route in the UK of moving to another city to engage with a displaced student experience. The actual names of students involved in the project are not used in this paper.

The students were provided with their own video cameras. They were asked to submit a weekly video diary of at least five minutes to the research team. They were also given complete control over the range of topics and themes that could be discussed in their weekly video diaries. It was hoped that this would encourage students to think about and focus on issues and experiences at the heart of their lives. The same students also participated in four focus group sessions across the 2007-08 academic year. The aim of the focus groups was to provide the research team with a basis to build on important emerging themes in the project and to allow participants to discuss these concerns with fellow students.

Student participation in the project has varied. By the end of the academic year, six students were no longer committed to the project. Notably, these six students were male. They may have lost motivation to take part in the project, or simply been initially attracted to the lure of access to a free video camera. That all six students were male, however, reflects other researchers' experiences of working with young people. In his study, Hecht (1998:11) found that young women tended to reveal their 'inner selves' and day-to-day concerns more than young men. The lack of ongoing involvement of male students in the project may similarly reflect under-studied aspects of masculinity and gendered identities in the student experience.

The fourteen students who stayed with the project provided some invaluable and often intimate insights into their evolving lives at university (and beyond). They did not necessarily submit diaries on a weekly basis, however. The project team realised that this was too much to expect of students, especially in the ebb and flow of workloads, winter colds and work deadlines. One student suggested that being part of the project was one of the highlights of her first-year experience. As we illustrate later, commitment and insights of such students have provided us with a fresh basis to think about and theorise student transitions.

Fragmented transitions

What do academics, educationalists and other professionals mean when they talk about student transitions? Student transitions are often viewed as involving movement from one state of being, place or social context to another. Transitions, in other words, are conceptualised as a linear process. Holdsworth argues, however, that transitions 'do not necessarily follow a smooth and uni-directional path' (2006:499). The ways that students adapt to social and academic life at university may instead follow a more fragmented process (Holdsworth, 2006:499). In this vein, adapting to life at university may involve ongoing adjustments and re-adjustments to different aspects and elements of change. A uni-directional model of transitions also denies the extent

to which students engage with and experience these adjustments and re-adjustments to university life in different ways. It can be argued that these differences reflect the increased diversity of the student population in the UK (Palmer *et al.*, 2009:40) and the fact that students engage with the first-year experience on highly individualised and personalised terms.

The findings of the Student Experience Project concur with Holdsworth's understandings of student transitions. For students involved in the project, adapting to life at university is far from a smooth, linear or uni-directional process. During the first weeks of university, students occupy an ambiguous social and symbolic space between the established relations and attachments of 'home' and the new environment of campus life (Palmer *et al.*, 2009). In this in-between state, some students tend to miss and reminisce of the relations associated with 'home.' Consider how Rebecca feels after five weeks at university:

> All the excitement's gone. You get really excited about Uni. Fresher's Week was amazing and it just feels like you're on a massive come down now of how amazing everything was and now it's just like gone. Boring. Bored of it. You want to go home. You miss your mum. You miss your friends. It's like you have friends here but they're not like real friends yet. You don't feel that you can open up and tell them everything. I'm just starting to miss things from home. I just wanna give my mum a hug, go down the park with my dog. I want to sleep in my own bed, go out with my friends to my local pub, where everyone knows me. I don't like not knowing people. It's really unsettling. I mean I know lots of people here but it's not the same as knowing everyone back home.

Establishing and/or accepting friendships with fellow students play a vital role in addressing or at least diluting these feelings of homesickness. It is these relationships that enable students to at least begin to feel a sense of belonging in their new social and academic surroundings (Eder & McCabe, 2004). For some students, this transition or 'turning point' (Palmer *et al.*, 2009) within the first-year experience may occur quite quickly. Sophie explains the importance of her new friends in ways that differ from Rebecca's initial experience of her first few weeks at university:

> I'm really glad that all the people I've met on my course have been really cool. Like obviously because you've got to club together really quick because we all live away from home and stuff and we all go through similar things. You realise that once you share something, like something important or something you're worried about, with one of the people you're friends with, you realise actually how close you can get to people with the first two weeks of being in a little group.

Sophie's suggestion that 'all' students live away from home and therefore experience similar emotions and transitions is reinforced by an ongoing tendency of many first-year students in the UK to live in university accommodation. In one particular focus group, students felt that 'living in halls' was an essential aspect of the first-year experience, not least as it provided people with a basis to make friends who would in turn move into private accommodation with you during the second year.

Sophie's understanding of the first-year experience nevertheless denies the existence of 'home students' who may live with their parents and have a very different starting point to how and in what ways they adapt to university life. As a home student, Mukesh's experiences of establishing new friendships is very different to, and yet entangled with, Sophie's generic view of all students living away from home and going through similar things. During the first semester, Mukesh was unable to make friends with his peers on campus. He directly attributes this to his status as a home student. As he explains, 'There is definitely a divide because I'm at home and everyone's here.' Mukesh's use of the term 'everyone's here' offers a discursive insight into his very real sense of feeling excluded by non-home students on the 'here' of campus.

What is also clear, however, is that Mukesh's experience of life as a young adult is not only defined by his status as a first-year student. As a 'home student', Mukesh has different reference points through which to build attachments to his home town of Leicester. This, in turn, has implications for how and in what way he values the supposed need to adapt to life and friendships at university. For example, although Mukesh recognised that he was engaging with different teaching styles at university, he viewed his experiences of college and university as entangled aspects of the same learning experience. The perceived lack of transition in this process is partly explained by the fact that Mukesh attended a college that is within walking distance of the University. Mukesh's physical journey to his new place of study followed the exact same route and routine as his previous journey of two years between his parent's home and college. At the same time, Mukesh can also count on sites of belonging and friendship that exist beyond the social and institutional boundaries of his university. Many of Mukesh's 'old' school and college friends, for example, live in Leicester and he sees these friends on a regular basis. As Holdsworth (2006:516) suggests, these home-based networks may offset the need to build friendships on campus.

The experiences and perceptions of Rebecca, Sophie and Mukesh highlight the important but varied role of friendships in facilitating a sense of belonging in their evolving lives. For Rebecca and Mukesh, in particular, the *social* transition from home to university is not a smooth, linear or uni-directional process. Whilst Sophie may embrace new friendships, Rebecca is less inclined to let go of the trusting and long-established social networks of home. Mukesh, meanwhile, may feel excluded to some extent from university friendships but is able to maintain other social and symbolic sites of belonging in the form of his Leicester-based friends. All three students, meanwhile, experience the building or otherwise of friendships on their own terms in ways that are specific to their own individual life stories. In the next section, we extend Holdsworth's analysis of student transitions by highlighting the need to distinguish between and yet recognise how and in what ways social *and* academic transitions are complex, entangled elements of the first-year experience.

Social and academic transitions as entangled processes

Social and academic transitions are often viewed as distinct and separate processes. A study of the first-year experience by Wilcox *et al.* (2005), for example, distinguishes

between the social and academic 'worlds' of students. Through this juxtaposition of worlds, Wilcox *et al.* (2005:720) illustrate how the 'social side' of university facilitates and enhances the 'academic side' of the first-year experience. This representation of university life as two sides of the same experiential coin reinforces an assumption that student transitions are linear and uni-directional processes. In this particular case, the friendships made at university are seen to provide students with a basis to move forward in terms of the academic side of their first-year experience.

The case of the home student Mukesh complicates this understanding of the 'social world' of students and a further assumption that the social side of the university experience is exclusively located within the boundaries of higher education institutions. Building on Holdsworth's notion of fragmented transitions, we also suggest that social and academic transitions represent multi-layered and entangled aspects of university life. On these terms it is too simplistic to think of social and academic transitions as distinct, separate and mutually supportive elements of the first-year experience. Students experience these transitions in complex ways. This is especially the case for first-year students in their first semester, as they adapt and adjust to a variety of new, often competing demands and routines in their life. As he prepares to go home for the Christmas holidays, John reflects on his first semester at university as follows:

> I'm quite looking forward to going home actually. I didn't think I would but this last term has just sapped everything out of me. I didn't expect to have been going to bed after midnight every single night, getting up for 9 o'clock, then not eating much, lots of drinking and staying up late again, not eating much, eating rubbish when I do eat. Just sapped the energy out of me. Constantly working, always feel under pressure but suppose it's all good.

In John's case, his socialising (and drinking) at university complicates his ability or otherwise to attend early morning lectures. By the end of the first semester he feels drained and is certainly in no position to separate his social and academic experiences, let alone treat them as distinct, bounded and mutually supportive worlds. John's understanding of his first-year experience is not unique. Several students on the project spoke of similarly feeling drained by a whole range of new and competing demands on their life. In the first few weeks alone, a student may not simply be adapting to new teaching and learning styles or a new social environment. She or he may be simultaneously learning to wash clothes, manage finances, look for private accommodation for the second year, take exams, deal with deadlines, engage with new feelings of freedom and independence and the challenges of living in institutionally-managed accommodation for the first time in their lives.

We suggest that the competing demands and entangled nature of social and academic transitions compromises the ability of students to simply move forward in a smooth linear process in and through their lives at university. Take the example of Sam. Sam settled quickly into university life, with friendships in her halls of residence playing an important part in this experience. As she put it:

> At first I didn't really like it because I got quite homesick and I was poorly for the first week. But everyone I live with is really nice and I get along with everybody. I felt that at the start that I didn't really click with anybody, like really well. But now I'm starting to get along with them much more.

Towards the end of the first semester Sam was settled in her life at university. With the Christmas holidays approaching, however, she felt that she was going to have to engage with a further process of change and re-adaptation. As she explained at the time, 'I've settled in and I think it's going to be a big adjustment going back home and then when we come back in January it's going to be an adjustment as well'. After spending four weeks at home with her parents, Sam felt that she would have to re-build her relationships with her new university friends. This concern was exacerbated by the fact that an important set of examinations was scheduled for the students' return in January. These examinations provide the students with their first significant experience of engaging with and managing revision strategies and workloads at the University.

Sam's concerns proved to be very real. She now explains her experiences of returning to her halls of residence after the Christmas holidays:

> Well, when I moved back into Uni I was pleased to see everyone and all of that. Went to dinner and saw them a little bit but I had an exam the next day. It was a 2 o'clock exam so I had to make sure I did revision for it. Basically the first week I was revising all the time, staying up late and revising and that's how my holiday went as well. I was just doing a lot of revision, 'cos I wanted to do well. So I was in my room most of the time and not seeing people as much and it was difficult to hold the relationships that I'd left Uni with in December and go back to it and not be able to talk to people. Everyone's in the same situation, though they had one or two exams and I had five.

Sam's experiences illustrate the extent to which the arrival of the Christmas holidays disrupts the flow of friendships, which in turn feeds into the extent to which she feels settled or otherwise at the beginning of her second semester at university. These experiences are further complicated by the potentially important examinations that take place soon after students return from the Christmas holidays.

Other students shared these experiences. Jessica explains her experience of revising for these examinations:

> I think it's really weird like coming back from Christmas and having exams. You're just by yourself, doing revision and then it's kind of like, oh friends, again. For me anyway, it's kind of like, oh, these people kind of exist again. Like not to say they didn't exist before but like they only kind of pop back in your mind after exams really ... I kind of think I picked up most of the friendships I made after exams and stuff, I think. I guess it's a bit difficult as well because I guess when you're back home for so long you kind of just get used to how things are back home and the friends that you've known forever and then to come back and be friends with people you've only known a couple of weeks is a bit strange but I guess you just try and carry on, just building friendships.

Jessica seems more ambivalent than Sam in terms of the value she attaches to her new university friendships. By speaking of these new friends as people she has known 'for a couple of weeks,' instead of a full semester, Jessica alludes that trusting relationships with other students are not necessarily built over a matter of days or even weeks. As the social anthropologist Carsten (1994) reminds us, the ways in people establish a sense of 'social relatedness' with others is often a long, drawn out process of being, sharing and becoming. Students may leave university having made 'friends for life' but these friendships are the product of three to four years of often intense shared experiences. In Jessica's case she has known her friends 'back home' for approximately seven years of her life.

The experiences of Sam and Jessica highlight how social and academic transitions are entangled aspects of the everyday life of students. In this sense, these transitions are not simply distinct and mutually supportive aspects of the first-year experience. Social transitions may complicate how students engage with academic transitions and *vice versa*. In this particular case, the need to revise for an important set of examinations compromises the ways in which some students re-adjust to their social life back on campus. Comparing Sam's understanding of friendships during the first two weeks at university with her experiences after Christmas offers further insight into the extent that student transitions are neither fixed nor stable. The data presented here by Sam from different video diaries supports an argument that questionnaires and one-off semi-structured interviews may offer only a partial insight into students' complex and contradictory reflections of the student experience and their evolving identities as young people.

Concluding remarks

The methodology at the heart of the Student Experience Project facilitates important insights into first-year student life. By providing students with video cameras we gain nuanced insights into the personal and individualised experiences and journeys of these young people. The students' reflections and insights encourage a fresh approach to how we as researchers can think about and theorise student transitions. Specifically, the Student Experience Project offers a unique *temporal* dimension to understandings of transitions in ways that cannot be achieved through the 'single response' data of questionnaires or one-off semi-structured interviews. The use of portable video cameras also offers a *spatial* dimension to our work, which transcends the institutional, social and academic boundaries of campus life.

More specifically, this chapter concurs with Holdsworth's (2006) notion of fragmented transitions. The students involved in the project do not experience social and academic transitions as a smooth, linear, uni-directional process. Rebecca, Sophie and Mukesh, for example, have different perceptions and experiences of building friendships at university. Whilst these friendships may be important in facilitating a sense of belonging at university, Mukesh's story highlights the extent to which the social groupings of non-home students may encourage a simultaneous process of inclusion and exclusion for young people. With his locally based social networks to rely upon,

Mukesh is fortunate to feel a sense of belonging in Leicester that is not exclusively defined by his status as an undergraduate student or by institutional boundaries. In this sense, we can appreciate how 'home' remains an important but varied social and symbolic space in the lives of students involved in the project.

The insights gained from the Student Experience Project allow us to build on Holdsworth's theory of fragmented transitions and understandings of the distinction between social and academic transitions. Social and academic transitions, we suggest, are entangled aspects of a student's everyday life. As John's story illustrates, the very experience of engaging with these blurred, competing aspects of campus life can leave students feeling drained or exhausted by the end of their first semester at university. For some students involved in the project, the need to revise over and straight after the Christmas holidays compromises their ability to re-adjust and re-adapt to friendship networks in the second semester. The spatial, temporal and student-led reflections of the project thus provide us with a basis to understand how and in what ways social transitions may complicate the ability of students to engage and move forward with academic transitions and *vice versa*. These findings illustrate the extent to which a longitudinal, ethnographic research method is able to inform pedagogic theory and research of the first-year experience in ways that may be of benefit to educationalists, policy-makers and the lives of future students.

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CHAPTER 4

WEAVING THE INVISIBLE TAPESTRY

MANAGING DIVERSITY THROUGH ORIENTATION INNOVATION

FRANCOIS STRYDOM
MELODY MENTZ

Introduction

> Transforming a discriminatory, fragmented higher-education system with elements of excellence in a sea of mediocrity into a coordinated and uniformly excellent one has been a major challenge for post-apartheid South Africa. (Ramphele, 2008:196)

This quotation by Ramphele illustrates the history that South African higher education must address, but also highlights the promise of what it can become. The impact of South Africa's fragmented past is still evident in the institutional cultures of many South African higher education institutions. The Council of Higher Education (CHE) Review of Higher Education in South Africa highlights the relevance and importance of institutional culture. Recent cases of intolerance of difference on several university campuses have highlighted possible fault lines in the institutional cultures, especially in relation to diversity (CHE, 2007:6). The establishment of a Ministerial Committee on 'Progress towards Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions' has focused attention on how institutions can develop cultures that create social cohesion and eliminate discrimination. Kuh and Whitt use the metaphor of an invisible tapestry when referring to institutional culture. They define culture as a 'persistent pattern of norms, values, practices, beliefs and assumptions that share the behaviour of individuals and groups in a college or university and provide a frame of reference within which to interpret the meaning of events and actions on and off the campus' (Kuh & Whitt, 1988:iv).

This chapter focuses on the need and importance of diversity on campus and provides suggestions on how respect for diversity can be woven into institutional cultures in the first year of study and particularly in orientation programmes. Although we view diversity as including various forms of difference (gender, ethnicity, sexual orientation, etc.), in light of the history of South Africa, issues around racial diversity are emphasised as a significant challenge facing the sector.

Why should diversity be woven into institutional cultures?

Milem, Chang and Antonio (2005:3) define diversity on higher educational campuses as 'engagement across racial and ethnic lines comprised of a broad and varied set of activities and initiatives'. They expand further by highlighting that although diversity includes numbers and demographics, it goes beyond mere composition of the student body to *campus climate*, including an opposition to all unfair forms of exclusion, prejudice and discrimination. Chang and Astin (1997) offer a further operational definition that conceptualises campus diversity as a campus climate and programmes that offer opportunities for all students to interact with students from different racial groups. With these definitions as a point of departure, the benefits of diversity need to be considered. The case for diversity in the educational setting is grounded in the benefits various stakeholders accrue from such interactions. Milem *et al.* (2005:33) show how diversity results in individual student development, as well as collective benefits for institutions and society at large.

Individual benefits

Greater compositional diversity will inevitably result in a broader collection of thoughts, ideas, and opinions, and it is more likely that a student in such a setting will be exposed to a wider range of perspectives on a variety of issues. As a result, campus communities that are 'more racially and ethnically diverse tend to create more richly varied educational experiences that enhance students' learning and better prepare them for participation in a democratic society' (Milem *et al.*, 2005:5).

The following democratic and learning outcomes have been reported in research by various authors:

1. Students *learn more and think in deeper*, more complex ways in a diverse educational environment (Gurin, Dey, Hurtado & Gurin, 2002:347).
2. Individuals who are educated in diverse settings are far *more likely to work and live in racially and ethnically diverse environments* after they graduate (Milem *et al.*, 2005:5).
3. Individuals who study and discuss issues related to race and ethnicity in their academic courses and interact with a diverse set of peers in college are *better prepared for life in an increasingly complex and diverse society* (Milem *et al.*, 2005:5).
4. Individuals gain *deeper understanding* of themselves and *greater respect* for the complex identities of others and their respective cultures (Palmer, 2000).

Given the history of group segregation in South Africa and the increasing complexity within the 21st century world of work, the ability to be a meaningful role-player in

a diverse democracy is a life skill every graduate must be equipped with. Universities cannot shirk their responsibility to maximise favourable conditions for this development to occur.

Institutional and societal benefits

The benefits to the individual alone are sufficient reason to make diversity a priority in institutions, but there is evidence indicating that diversity enhances the effectiveness of the institution at the same time (Milem, 2003:139-140, 147). An emerging body of research indicates that greater diversity within organisations allows institutions to attract and retain the best talent, as well as to exhibit higher creativity and innovation, better problem-solving ability and more organisational flexibility (Milem, 2003:160). Research evidence further suggests that diversity in staff (both in terms of gender and race) is associated with more active learning techniques, increased student-centred learning and a greater diversity in curricular offering (Milem, 1999). In addition, there is evidence that research and service to the community are also positively impacted upon (Milem, 2003:135).

The societal benefits stemming from diversity in university contexts are the students who graduate from these institutions with greater ability to work in complex environments, deal effectively with diversity and value persons from diverse backgrounds for their inherent value. Higher education institutions with sufficient focus on diversity fulfil the role of training future leaders who understand and practise democratic values in civil society (Milem, 2003:160).

The cumulative benefits to the individual, the institution and society make a strong case for ensuring, promoting and managing diversity on campuses. However, before effective diversity management can be undertaken, an institution must gain an understanding of its current status quo with regard to culture and curriculum.

Examine your tapestry by evaluating the institutional climate

A two-stage research process should be undertaken in the interests of weaving a new institutional culture:

1. *Systematically assess the campus climate regarding diversity*. Given the fact that different groups have very different perceptions of what the diversity climate is on any given campus and these perceptions are constantly in flux, Milem *et al.* (2005:13-14) encourage institutions to conduct research on an on-going basis in order to ascertain the state of affairs. The Division of Student Development and Success at the University of the Free State (UFS), with which the authors of this chapter are associated, initiated this type of research to assess students' attitudes towards other groups upon arrival at university and to monitor changes in attitudes over time during the first year of policy implementation. First-year students at the UFS completed the Social Dominance Orientation Scale (Pratto, Sidanius, Stallworth & Malle, 1994:741-763) and a version of Bogardus' classic Social Distance Scale (Bogardus, 1933:265-271).

2. *Reviewing best practice models in other institutions.* By reviewing the programmes that have been proven to increase intergroup cooperation and improve race relations, the university can combine contextualised results and proven methodologies in order to maximise the success of initiatives.

Following this research process, various principles related to the creation of diverse institutional cultures need to be considered. We will now briefly discuss these principles.

Principles for weaving diversity into institutional culture

There are three driving forces that facilitate student learning in diverse contexts – structural, curricular and co-curricular (Gurin *et al.*, 2002).

According to Milem *et al.* (2005:6-8), the first *necessary condition* under which students can truly experience these benefits is compositional/structural diversity (i.e. proportionate numbers of each group within the organisation and its substructures). In the 'Enacting Diverse Learning Environments' report, authors Hurtado, Milem, Clayton-Pedersen and Allen (1999:19-21) also emphasise this point by citing structural diversity as the foremost prerequisite upon which to build diversity initiatives. Even though structural diversity is a necessary condition for diversity benefits, it is most certainly not a sufficient one: even when students find themselves in a diverse context, a deliberate effort must be made to manage this diversity in order for them to benefit educationally. In order to ensure that students develop optimally through exposure to diversity, the institution should implement a range of *multidimensional activities planned as long-term interventions* that deliberately create interracial connections (Hurtado *et al.*, 1999:69-79).

In a desktop review of various intervention programmes to promote diversity, a number of underlying principles emerged which can be summarised as follows (Change, 2005; Gurin *et al.*, 2002):

- Interaction between groups must occur on a *regular on-going basis.*
- Programmes must be *comprehensive in nature and long-term.*
- The groups who are interacting must have members who are afforded *equal status.*
- *Cooperation and common goals* for the group must be present, as opposed to a competitive structure.
- Integration must happen *inside and outside the classroom*, interactions must be curricular and co-curricular in nature. Research clearly indicates that mere co-existence of various races in the same institution will not result in any educational benefits.

Therefore, any approach to orientation that seeks to weave diversity into the institutional tapestry will need to be based on a first-year experience model that provides interventions throughout the first year and further into a students' academic career.

Using orientation to weave diversity into institutional cultures

Theoretical perspectives on orientation

Various theories in student development underpin orientation programmes. Pascarella and Terenzini (2005:19) categorise these theories into psychosocial theories, cognitive-structural theories, typological models, and person-environment interaction theories and models. These authors identify commonalities in the aforementioned developmental theories. Relevant similarities that relate to the substance of these theories include the emergence of self-understanding and awareness as a participant in learning, identity development and a focus on the culminating stage of development, which includes self-definition and self-direction (Pascarella & Terenzini, 2005:48). The culminating stage of development is of crucial importance for the development of independent learners that are able to maximise their chances of success in higher education teaching and learning environments.

In addition to development theories, college impact models of student change underline the importance of orientation. These models include Tinto's theory of student departure, Pascarella's general model of assessing change and Weidman's model of undergraduate socialisation (Pascarella, 1985:1; Tinto, 1993:114; Weidman, 1989:289). Impact models underline the important role of institutional structure, policies, programmes and services in the social and academic integration of students. This emphasises the important role that orientation programmes can play in introducing students to teaching and learning environments in higher education (Pascarella & Terenzini, 2005:58).

Orientation and the South African Context

The development of orientation programmes in South Africa appears to have been overshadowed by the development of bridging and foundation programmes – especially in the 1990s and early part of the new millennium, with the policy emphasis on access. The increased focus on success and throughput and changes in the school leaving population have resulted in the need for large-scale support for the majority of students that are making the transition into higher education. One of the examples of such efforts is the National Information Service for Higher Education (NiSHE) that has released the publication *Into Higher Education: A Guide for Schools* (Withers, 2006). This publication provides school-leaving learners with introductory information on higher education that is focused on preparing Grade 12s with a National Senior Certificate (NSC) (Withers, 2006:1). Recent Human Sciences Research Council (HSRC) research underscores the possible need for a review of higher education orientation programmes. This research shows that about 70% of first-years are first-generation students, which means that both they and their families need more effective orientation approaches to help them understand higher education (Macgregor, 2007).

Current trends in orientation

Orientation programmes offer a crucial opportunity for institutions to start to address diversity. Mullendore and Banahan (2005:391) view orientation as the institution's 'best opportunity to introduce a strong learning environment, build the foundations for academic success, welcome students and families to the campus community, promote students interactions with faculty and staff, and convey the values and traditions of the new institution'.

These authors have identified the following trends in university orientation programmes:

- Orientation has become more academic in nature helping students to negotiate the academic environment.
- Technological advances have improved efficiency but require careful consideration of the balance between technology and human connection.
- The increased diversity in student populations requires flexible, innovative, purposeful and efficient orientation programmes.
- There has been an increased family involvement and attendance.
- There has been an increased awareness of diversity focusing on what students have in common despite their differences.

According to Upcraft, Gardener and Barefoot (2005:395), the goals for orientation programmes have also changed to the following:

1. First and foremost, orientation should help students to succeed academically.
2. The orientation process should help students adjust to and get involved in the university environment.
3. These programmes should be designed to assist parents and other family members in understanding the complexity, demands and services in the university environment.
4. The programmes provide opportunities to learn more about incoming students through formal and informal means.

Orientation can therefore be a very powerful re-socialisation agent that can be used to develop and nurture a new campus climate. Zepke, Leach and Prebble (n.d.) in their review of the impact of student support on learning outcomes, point out that orientation provides an opportunity for the norms, values and behaviours of an institution to be explicitly and implicitly communicated. These authors further report on the positive outcomes related to institutional cultures where students from all groups feel valued, fairly treated and safe. They further give evidence illustrating that higher rates of retention and success are associated with climates that welcome, accept, respect and value diversity. Thus, ideally orientation should serve as a mechanism to communicate a campus climate that embraces values and encourages diversity.

There are numerous institutional forces that determine campus climate (Hurtado, Milem & Clayton-Pedersen, 1998:279-302), namely:

- an institution's *historical legacy of inclusion or exclusion* of various racial/ethnic groups;
- its *structural/compositional diversity* in terms of numerical representation of various racial/ethnic groups;
- a *behavioural climate* that is characterised by intergroup relations on campus; and
- the *psychological climate* that includes the perceptions and attitudes between and among groups.

Orientation programmes have the potential to influence the campus climate right from the outset of a student's time on campus. Research findings indicate that students' perceptions of the institution's commitment to diversity influence the extent to which they will benefit from diversity interactions (Milem *et al.*, 2005:11-12) and that the potential benefits of diversity are diminished in the face of problematic racial climates on campuses (Hurtado *et al.*, 1999:25-27). Research also shows that in instances where commitment to diversity is perceived there is increased retention of students from minority groups (Humphreys, 1998).

Strategies to weave the tapestry through orientation

Research highlights numerous specific strategies on how to manage diversity on campuses. However, for the purposes of this chapter only those most applicable within the context of orientation have been selected and are discussed briefly in the following pages.

a. *Create living and learning environments that promote interaction*. The setting for student interaction created by a campus to a large extent determines the pool of peers for friendship selection, establishes the patterns and terms of contact among peers, and determines the types of friendship roles that are important within a particular setting. Ultimately, the climate created on campus inhibits or promotes the development of intergroup interaction (Milem *et al.*, 2005:17) and institutions thus have an opportunity to directly influence the type of setting students find themselves in during the orientation programme. Non-competitive, interactive and diverse settings will help facilitate the establishment of the patterns/terms of intergroup contact the institution wishes to espouse campus-wide. Practically, universities can investigate the establishment of diversity centres responsible for coordinating and implementing various diversity initiatives. Examples can be found at Arizona State University's Intergroup Relations Centre (Arizona State University, 2007) and at the Center on Diversity and Community at the University of Oregon (Oregon State University, 2006). Centres such as these can potentially be responsible for designing and implementing an intervention for first-years.

b. *Create opportunities for students to develop interracial friendships.* The role of the peer group for undergraduate students has already been widely documented. For example, Astin (1993:4-15) states that the 'student peer group is the single most potent source of influence on growth and development during the undergraduate years'. Research further points to the positive impact of intergroup friendships on students (Antonio, 2001:611-613, 2004:463-466). A particularly important element of such friendships is the equal status of the individuals who are interacting.

This again highlights the value of orientation programmes where all students find themselves in an entirely new context in which all first-year students are at the bottom of the campus 'pecking order'. Antonio (1999) also found that students with strong interracial friendships were more committed to racial understanding and, interestingly, many of the friendships in this study were formed during the students' first year on campus. A well thought out orientation programme can serve to create an enabling environment for intergroup friendships to develop. For example, by structuring group activities that necessitate diverse groups to work on community-based projects, students will be placed in contexts where genuine friendships can be formed. Although many students in South Africa do not reside on-campus, residence halls are micro-communities where interracial friendships can thrive. An example can be found at Syracuse University, where the office of residence life coordinates various diversity related projects in residences (Syracuse, 2008).

c. *Ensure that students are exposed to information-rich, diversity-related sessions/courses.* Chang (1999, 2005) found that diversity course requirements can play a meaningful role in diminishing divisive racial prejudices and can subsequently improve race relations. The rationale for his argument is that if students are given meaningful opportunities to examine their own biased and erroneous judgements and learn to process new information more effectively, their judgments about different racial groups will be more positive. At Penn State University, Betsy Palmer (2000) found that students who took a discussion-based diversity-related course, which addressed knowledge of other cultures as well as issues of power and oppression, produced more tolerant social racial attitudes across gender and ethnic groups. Although a full credit-bearing course may not be feasible in the typically short orientation period, well-structured, informative sessions on the value and meaning of diversity begin to shape the attitudes of first-time entering students and ultimately form a basis for students to think critically about issues of diversity on campus. An example in the South African context is the use of creative methodologies in current curriculum as another potentially powerful tool for addressing inequalities (Bozalek, Biersteker, Swartz, Leibowitz, Carolissen, Nicholls & Rohleder, 2008). Initiatives such as these can be incorporated into first-year courses to promote understanding of diversity early in a student's university career.

d. *Create opportunities for intergroup dialogues*. Highly structured dialogues that are carefully facilitated by trained persons (usually senior students) have proven to be effective for diversity management and prejudice reduction in various studies (Engberg, 2007:310; Hurtado, 1999:86-87). The first weeks on campus during orientation provide the setting for such groups to be formed. Initial dialogues begun in formal orientation programmes can be extended into longer-term interventions that continue into the academic year. An example of this is structured intergroup dialogues, which is an emerging model that is being used and researched increasingly on campuses in the United States to get students to talk across boundaries (Zuniga, 1998). The University of Cornell takes a different approach to dialogue and presents a theatre production for first-year students aimed at making the new students aware of the extent of diversity on the campus. After the

production, structured discussion groups are held to help students become aware of and deal with their new highly diverse environment (Lang, 2006).

e. *Communicate clearly stated policies on resolving harassment and discrimination*. The perception that the environment is just and fair is essential to the reduction of prejudice on campuses (Hurtado *et al.*, 1998:386-388). Thus, the materials provided to students during orientation, as well as the information presented during group and individual sessions are powerful agents through which the institution's commitment to diversity and methods of dealing with infringements on human rights can be communicated to students.

Conclusion

This chapter has focused on understanding the need for integrating racial and ethnic diversity into university campus cultures. The integration of students holds benefits for individuals, institutions and society at large. Research indicates there are cognitive, affective and interpersonal gains for individuals who experience high-quality diversity experiences at university. Institutions who fail to prepare their students for the diverse world of work (locally and globally) run the risk of failing to empower students with the necessary skills for success. Research has linked increased diversity to specific higher education outcomes such as critical thinking. Students who have more diversity experiences report more progress in personal and educational growth, more involvement in active learning and higher levels of satisfaction with their higher education experience. At an institutional level, a commitment to diversity will inevitably lead to greater diversity in curricular offerings, staff composition, and ultimately in organisational flexibility and problem-solving strategies. At a societal level, lack of diversity is counterproductive to economic growth and development in the South African economy, whereas learning to work effectively with and in diverse groups leads to higher levels of citizenship and greater striving for equality in society.

The first step in the process of reweaving diversity into institutional culture is to assess the current climate by obtaining the perspectives of students and staff. A survey of student attitudes at the University of the Free State highlighted the need for specific interventions to start this process. A multi-faceted, long-term approach to orientation, similar to a type of first-year experience, can be used to help institutions to weave an invisible tapestry that will help to create a vibrant and more reconciled South Africa (Terrell Jones, 2005:154).

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CHAPTER 5

ASSESSMENT OF STUDENTS' STRENGTHS
THE FIRST STEP TO STUDENT SUCCESS

LAURIE SCHREINER
EILEEN HULME

The widening of access to higher education that has occurred in post-apartheid South Africa has had nothing less than transformation as its goal, with equity and redress identified as critical elements in this process (Department of Education [DoE], 2002). As greater percentages of students who were previously denied access to higher education are now entering the higher education system, there is a need for curricula and staff to be responsive to the variety of learning needs of a more diverse student population. With this expanded access also comes an enhanced concern for retention and graduation rates. As noted by the Council on Higher Education (CHE) report on Improving Teaching and Learning Resources, 'the challenge of widening access and participation is to ensure that those to whom access is granted have a fair chance of academic success' (CHE, 2004:4).

A 2007 report by the CHE indicated that, while access to higher education has improved somewhat in the post-apartheid era, academic success continues to be 'racially differentiated'. Five years after entering, an average of 30% of first-time students had graduated, but the ratio of white to black African graduates was more than two to one (Scott, Yeld & Hendry, 2007:iv). The report concluded:

> Since the majority of students entering the sector are not completing their studies, it can be reasonably inferred that the existing system is not effective in contemporary conditions. Furthermore, as the data analysis shows, the groups from which growth in output must primarily come are those that are least well served by the existing educational process. (Scott *et al.*, 2007:21)

The increased access to higher education that has been a priority for South Africa necessitates that the needs of diverse learners be considered in the design and implementation of education programmes and services. Continuing to provide

the same type of teaching and academic support that was appropriate for a more homogenous student population is no longer adequate to address the level of educational disadvantage and underpreparedness of incoming students.

A similar issue of addressing the increased access and diversity of students in higher education has been faced in American higher education. With the increased rate of access that occurred in US higher education in the 1970s came the task of ensuring the success of these more diverse students. Students from low-income families were plagued by inadequate academic preparation and familial support. Students of colour often came from these low-income families, many of whom were also the first in their family to enter higher education (Ishitani, 2006).

First-year student programmes

In an effort to assist all students in their transition into higher education and ensure their persistence to graduation, American institutions began to design first-year experience programmes. They were facing national statistics that indicated 75% of students who dropped out did so in the first year (American College of Testing, 2007). Recognising that the early weeks of a university student's experience played a critical role in determining the likelihood of their graduating, these programmes had student retention as their initial goal (Upcraft, Gardner & Barefoot, 2005). Over the past two decades, those goals have expanded to include such outcomes as students' academic and social integration (Cox, 2005). The expanded goals include introducing students to campus resources (Ishler & Upcraft, 2005), encouraging peer interaction (Hunter & Linder, 2003), and providing an opportunity for students to increase their self-awareness and skills (Hunter & Linder, 2005). Currently about 80% of all US postsecondary institutions offer a first-year course to facilitate the accomplishment of these goals (Tobolowsky, 2005).

A similar effort is underway in many South African institutions of higher education, with the recognition that foundational provision is necessary to assist 'talented but disadvantaged students who are underprepared for a traditional curriculum' (Scott *et al.*, 2007:44). Although the inadequacies of the schooling system contribute significantly to the difficulties students encounter in higher education, the CHE report emphasises the responsibility of the higher education sector to address the key factors that are under their control. These include affective factors such as student confidence and motivation to succeed.

The role of assessment

Fundamental to many first-year programmes is the role that student assessment plays upon entry to the university. Most institutions assess a wide variety of students' skills, attitudes and competencies in the first weeks of the first term. This reflects a foundational assumption that deficit remediation is the most effective strategy for enabling students to successfully complete a university degree (Schreiner, 2006b).

Out of a concern for meeting students' needs and being sensitive to their lack of adequate preparation for college, postsecondary educators focus on students' areas of deficit and build programmes and services around them. Staff go to great lengths to assess the abilities of entering college students and to place them in remedial courses or provide special services based on the deficits discovered in the assessment process (Schreiner & Anderson, 2005).

Barefoot notes that when faculty are asked about the challenges inherent in acclimatising students to the campus community, many will comment on the 'deficiencies of the students themselves ... rarely is there a sustained focus on and acknowledgment of the strengths of contemporary students' (Barefoot, 2000:13). As a result of this perspective, one of the core objectives of many first-year seminar programmes is to systematically attend to the inadequate college preparation that characterises many incoming students. Although this deficit-remediation strategy is designed to promote student success, it may actually serve to reduce students' motivation, effort, and investment in the learning process. Scott *et al.* (2007) concur as they note that underprepared students are likely to feel demoralised in an institutional climate that emphasises their deficiencies.

The deficit remediation approach to higher education has been an attempt to create a more equitable system of achievement for students regardless of their socio-economic status, ethnicity, gender, or level of academic preparation. However, it is clear that this approach has not created an entirely successful or equitable system. South Africa's success patterns mirror those of the United States: racial differentiation continues to be evident in the graduation ratios (Scott *et al.*, 2007; US Department of Education, 2008). Therefore, the question of how to ensure student success has been only partially answered by focusing on a student's areas of weakness.

Higher education is not unique in its deficit-based approach to improved success. Surveys conducted by The Gallup Organization in countries around the world show that the majority of people surveyed believe that addressing weaknesses will produce greater improvement than will an emphasis on their strengths (Hodges & Clifton, 2004). Addressing weaknesses can indeed result in at least short-term improvement: performance often improves, but not to levels of excellence and often at a very high price. Attrition rates remain very high among at-risk students, and low levels of academic motivation are often the norm (Schreiner & Anderson, 2005). In addition, as Yarbrough noted, advising encounters that consist of 'probing questions designed to illuminate and clarify the shortcomings and inadequacies of the student ... [are] potentially demoralizing' (Yarbrough, 2002:63). As a result of this reduced motivation, students become less involved in the campus community, believing that they do not really belong there in the first place, and they actively avoid and resist the very services designed to help them overcome these inadequacies. Instructors and staff then invest less time and energy with these students, either believing that they should not have been admitted to university or believing that the students are not motivated enough to overcome their weaknesses (Schreiner & Anderson, 2005). When student weakness is the focus of attention, a vicious cycle

of low expectations is initiated among students, professors, and staff alike. In short, deficit-based remediation largely fails to address the most fundamental challenge in producing high academic achievement: student engagement in his/her own learning.

The importance of affective factors in student learning

Motivating students to take responsibility for their own learning process stands as the primary challenge for educators (Perry, Hall & Ruthig, 2005). Instructors are faced with the increasingly daunting task of engaging students in learning, as a wider spectrum of prior learning experiences and diversity of talents characterise today's college students. The talent development approach (Kuh, Kinzie, Schuh & Whitt, 2005), which acknowledges and capitalises on the strengths students bring to the learning environment, provides a foundation for student success in its recognition that all students can learn under the right conditions. Based on over two decades of research on first-year students, some authors recommend that precisely because first-year students have a wide range of ability levels when entering college, institutions need to consider how to promote the growth of all incoming students while considering how to 'build on first-year students' strengths rather than their deficiencies' (Gardner, Upcraft & Barefoot, 2005:519). Scott *et al.* note that:

> A key feature of successful approaches is that they are not 'remedial' but in various ways recognize and build on the capabilities that students bring with them into higher education, rather than being bound by traditional assumptions about what these capabilities should be. (Scott *et al.*, 2007:45)

This approach is more likely to have a positive effect on students' motivation, as it encourages students to build on what already lies within them (Clifton, Anderson & Schreiner, 2006).

Authentic motivation that is self-initiated and self-regulated arises in settings where needs for competence, relatedness, and autonomy are met (Ryan & Deci, 2000). Equipped with this knowledge, institutions can design their students' first-year experiences around areas of strength that will build a sense of personal competence within a supportive network of relationships and choices. In contrast to extrinsic motivation, authentic motivation produces higher levels of 'interest, excitement, and confidence, which in turn is manifest both as enhanced performance, persistence, and creativity ... and as heightened vitality ..., self-esteem ..., and general well-being ... (Ryan & Deci, 2000:69). When students are authentically motivated, they are more likely to engage in the learning process. Such engagement produces higher levels of academic performance as well as the kind of content mastery that lasts beyond the final exam. It also facilitates student growth and development, leading to psychological well-being and persistence to graduation (Kuh *et al.*, 2005).

The strengths-based approach to student success

The concept that individuals develop more and perform at higher levels when they build on their existing talents than when they make comparable efforts to remediate

their areas of weakness, is at the heart of the strengths-based philosophy (Clifton & Harter, 2003). In contrast to much of the conventional wisdom in education, which asserts that helping students improve areas of deficiency is likely to lead to their success, the strengths philosophy is founded upon the premise that the key to achieving at levels of personal excellence lies in teaching people to identify and capitalise on their greatest areas of talent. In this paradigm, weaknesses are not ignored, but are instead addressed through the skillful use of existing strengths (Clifton & Harter, 2003).

Such an approach focuses on affirming the unique strengths of each student, which can be defined as a consistent ability to do something very well (Clifton *et al.*, 2006) or as specific activities one does with excellence and which are energising (Buckingham, 2007). As Lopez (2006) notes, strengths-based practices leverage the positive academic and psychological resources of each student.

Although there are several instruments that may help individuals identify areas of strength, one of the most commonly used in American higher education is the *Clifton StrengthsFinder*, a web-based assessment released by The Gallup Organization in 1999. More than two million people worldwide have taken this inventory to date (Buckingham, 2007), including over 500,000 students on over 400 college and university campuses nationwide. With strong evidence of construct validity and test-retest reliability over a nine to twelve week period among university students (Schreiner, 2006a), this instrument can be used to assess students at the point of entry to higher education in order to equip them with a sense of their existing talents that can be further developed within their educational careers. A textbook, *StrengthsQuest: Discover and Develop Your Strengths in Academics, Career, and Beyond* (Clifton *et al.*, 2006) is equipped with a code for students to access and use the online instrument. Institutions can also provide students with codes and the book can be downloaded online after they complete the instrument.

The *Clifton StrengthsFinder* (Gallup, 1999) assesses 34 areas of talent, which are defined as 'naturally recurring patterns of thought, feeling, or behavior that can be productively applied' (Clifton & Harter, 2003:111), and include ways of processing information, interacting with people, perceiving the world and navigating the environment. Students who complete the online instrument are provided with a report on their top five areas of greatest talent. Combined with knowledge and skills acquired in the learning process, these talents can be developed into strengths utilised to achieve academic as well as personal success (Clifton *et al.*, 2006). It is the investment of effort in acquiring knowledge and skills that develops strengths from the existing talents. Such strengths are abilities to deliver consistent, positive performance in a given activity (Clifton & Harter, 2003).

Excellence thus becomes a central value and goal in a strengths-based approach to learning and development. Such excellence occurs when individuals capitalise on their talents and invest the time and energy needed to excel. Strengths development is a process that can be not only encouraged in first-year students through experiences that deepen their self-awareness, but also intentionally emphasised in and out of the classroom during the pivotal first year. Building strengths is a five-stage process

consisting of (1) identifying the natural talent themes; (2) affirming those themes with significant others; (3) developing the talent themes by investing energy and effort in acquiring the necessary knowledge and skills to complement the existing talents; (4) applying the developed strengths to new or challenging situations, and (5) combining the strengths with other talents the students have, as well as with the talents of other people, to produce excellence. This final phase encourages students to recognise the talents and gifts that others have, and to partner with others to accomplish more than what can be accomplished by any individual. Shushok and Hulme assert that this process of valuing one's own and others' strengths initiates an understanding that 'a life well lived is one lived in interdependence and community' (Shushok & Hulme, 2006:7). This recognition of one's strengths within the greater context of others' strengths also appears to reflect the South African cultural value of *ubuntu*, whereby 'a person is a person through other human beings – I am because you are, you are because we are' (Luthans, Van Wyk & Walumbwa, 2004:515).

A strengths-based approach holds potential for positively impacting student success and persistence for two reasons. First, an awareness of one's strengths has motivational properties that can lead to increased engagement with the academic environment. Such engagement has been shown to impact student success and persistence (Kuh, 2005). The second reason is that a strengths-based approach also has the capacity to increase a student's range of intellectual behaviours that can be applied to the academic arena. This cognitive capacity arises from the positive emotions that emerge as one learns about talents that already exist within oneself and can be productively applied in order to succeed. Such positive emotions broaden students' creative thinking, complex problem solving, and higher-order thinking and build their coping skills and resources for addressing problems in the future (Fredrickson & Losada, 2005). However, this cognitive capacity also arises from the specific ways in which students' talents and strengths can be used to address challenges and reach goals. By learning of their top five areas of talent and how to use those areas of talent in new situations, students gain awareness of at least five new ways of thinking about their goals and how to reach them (Lopez, 2006).

Outcomes of strengths-based approaches to higher education

There are a number of positive outcomes that have been demonstrated empirically through the use of the StrengthsQuest programme. The first of these is increased student engagement in the learning process. Engaged learning is 'a positive energy invested in one's own learning, evidenced by meaningful processing, attention to what is happening in the moment, and participation in learning activities' (Schreiner & Louis, 2006:6). In a pretest-posttest control group design for an entire semester of a required Public Speaking class taught to first-year students, Cantwell (2005) demonstrated that a strengths-based approach to teaching the class had significantly positive effects on students' engaged learning, exam scores, speech competencies, and overall satisfaction with their college experience. Students in the strengths-based section of the course took the *Clifton StrengthsFinder* outside of class, journaled about

their results, utilised their results as they formed learning teams and completed group projects, and received feedback from the instructor that reinforced the use of their talents. Students in the control group received the same course content, but rather than learning about their strengths, they learned about skills that would help first-year students be successful, such as time management. They participated in group projects and learning teams, but not based on their strengths themes. They received reinforcement from their instructor, but it was not specifically about how they applied their strengths. The significant differences between the two course sections provided preliminary evidence that a strengths-based approach could impact these important learning outcomes.

The second outcome of strengths-based interventions is a positive impact on academic self-efficacy. Academic self-efficacy is students' perception that they are capable of achieving academic success; it is significantly related to students' grade point average, persistence, and personal adjustment (Chemers, Hu & Garcia, 2001). In a pretest-posttest control group design of over 900 students in a first-year seminar at a private liberal arts university in the western United States, students randomly assigned to the strengths-based section of the course reported significantly higher levels of academic self-efficacy than did those in the control section, even after taking into consideration their pre-existing levels of academic self-efficacy at the beginning of the course (Schreiner, 2006b).

The third positive outcome seen in strengths-based interventions with first-year students is in their levels of perceived academic control, which is a construct that encompasses students' beliefs about whether they possess certain attributes needed for academic success and whether these qualities will make a difference in their scholastic performance (Perry *et al.*, 2005). Perceived academic control is a particularly relevant issue for first-year students, as the demands associated with the transition into higher education can create perceptions that one has little control and because student differences in levels of perceived academic control are most pronounced at this time (Perry *et al.*, 2005). Students with higher levels of academic control tend to exert greater effort and obtain higher grades than their peers who have lower levels of academic control. As strengths-based approaches focus on the personal resources that students have at their disposal to address the challenges they face, Louis (2008) designed a study to discover whether students randomly assigned to a strengths-based section of a first-year course would exhibit significantly different levels of perceived academic control than students in the regular curriculum of the course. The results indicated that the perceived academic control reported by students in the waiting-list control sections dropped significantly over the course of the semester, while the perceived academic control of students in the strengths-based sections slightly increased. Even more notable was that when the control sections received the strengths-based curriculum their levels of perceived academic control increased significantly. Thus it appears that a strengths-based approach has the capacity to bolster academic control and to infuse it in students within whom it had been flagging.

In addition to engagement, academic self-efficacy and perceived academic control, strengths-based approaches also promote first-year student success by impacting students' levels of hope. Hope reflects students' perceptions of their ability to conceptualise goals. It consists of *pathways thinking*, or specific strategies for reaching the goal, and *agency thinking*, which 'initiates and sustains the motivation for using those strategies' (Lopez, Snyder, Magyar-Moe, Edwards, Pedrotti, Janowski, Turner & Pressgrove, 2004:388). University students high in hope are more confident, energised, and think more positively about their goals than do those who report low levels of hope. Hope is also predictive of academic achievement, as measured by grade point average (Snyder, Shorey, Cheavens, Pulvers, Adams & Wiklund, 2002) and postsecondary graduation rates (Snyder, Rand & Sigmon, 2002).

Hope theorists believe that students' views of themselves as being capable of initiating and implementing strategies to achieve their goals is an essential component of hope (Lopez *et al.*, 2004); identifying personal talents may help in this process. A study of at-risk first-year students by Gomez and Schreiner (2008) in a regional state university in the US found that students in the strengths-based section of a required study skills course reported significantly higher levels of hope at the end of the semester when compared to those in the traditional study skills section, even after controlling for pre-existing levels of hope at the beginning of the course. This capacity for generating hope in students who were at high risk of academic failure and for leaving university holds promise for other students in transition. These are students who may find themselves uncertain of what the future holds for them and are unsure of their ability to reach their goals. Helping such students recognise, nurture, and develop their strengths provides them with both the *willpower* and the *waypower* (Snyder, 2000) for realising their dreams. When students understand that strengths establish their pathways to goals (Lopez, 2004), and that the college experience provides the specific venues, knowledge, and skills they need to reach their destinations, they are more likely to internalise the behaviours necessary for full engagement in the college experience.

Taken together, these positive effects on first-year students' engaged learning, academic self-efficacy, perceived academic control, and levels of hope indicate that strengths-based approaches to the first-year experience are worth consideration as educators plan these programmes. By including strengths-based assessments and communicating to first-year students that they have within themselves the ingredients for success, educators can emphasise that there are effective strategies that can be learned in order to achieve that success. Both messages are important for students to hear: that they have within themselves the seeds of academic success, and that it is up to them to invest the energy and effort to develop those seeds into the strengths that will enable them to reach their goals at levels of personal excellence.

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SECTION TWO

CHAPTER 6

BUILDING A CASE FOR INTEGRATIVE FIRST-YEAR EXPERIENCES AT THE UNIVERSITY OF CINCINNATI

PAMELA PERSON
GISELA ESCOE
MARIANNE LEWIS

In the late 1990s, the University of Cincinnati (UC), challenged by its large, highly diverse undergraduate population and modest retention and graduation rates, sought to improve students' collegiate experience and success. In response, the University turned its attention to the first-year experience (FYE). A large body of research has amassed findings that indicate FYE interventions can increase retention and student engagement (Kuh, 2001; Kuh, Kinzie, Schuh & Whitt, 2005; Leskes & Miller, 2006; Taylor, 2003; Tinto, 1997; Tobolowsky, 2005). Appropriately, UC launched its initiative with a visit from John Gardner, arguably the FYE movement's most influential leader, who served as a retreat consultant in October 1999. This retreat launched an organised effort to identify key elements of a successful first year at UC and to promote college-based, as well as centrally-administered, academic and social supports to help students achieve their educational goals. FYE has since emerged as the foundation of the University's new, overarching approach to undergraduate education.

The University of Cincinnati offers a case study of innovative integration – a model for linking FYE efforts across a large and varied undergraduate population, and for leveraging FYE as the base of a comprehensive academic plan. Given its scope, we develop this case at three interwoven levels. We begin with the University's FYE initiative, examining its evolution and resulting programme. Next, we place that initiative within its broader context, as the foundation of the University's revised undergraduate experience. We then shift to a specific, college-level example. The College of Business illustrates the potential for a purposeful and creative FYE to energise programmatic revisions and enhance students' experiences and professional performance. Coming full circle, we then present the university-level results of this integrative approach. Our conclusion explores the implications of this case, identifies related opportunities and challenges and proposes future directions.

The University of Cincinnati's FYE initiative: Great Beginnings

At the University of Cincinnati, FYE efforts developed through collaboration and serendipity. Early support grew out of simultaneously occurring but independent pilot projects and related conversations among UC faculty and staff, as well as state-level stakeholders. These included freshman-level learning community projects in several colleges, drafting of the Strategic Enrolment Management Team's blueprints for increasing undergraduate retention and graduation rates, and introducing the Ohio Success Challenge project (competitive government funds to help at-risk students successfully earn baccalaureate degrees). Energised by the John Gardner retreat and fueled by Ohio Success Challenge funding, these parallel efforts merged. The formal FYE initiative began in conjunction with campus-wide implementation of learning communities. Together, these efforts sought to provide students the feel of a small, personalised programme, and the benefits of a large, urban, research institution.

Initially, FYE and learning communities were separate efforts. The 2002 FYE Model was developed by a steering committee led by associate provost Linda Cain, UC's initial champion of FYE, with representatives from the Provost Office, Student Affairs and Services, college offices, and faculty, and was reviewed by the Faculty Senate, deans, and associate deans. The committee identified the key components of FYE as: new student orientation; engaging and enriching classroom instruction; accurate and timely academic advising; guidance regarding study; learning life management skills; career counselling; and social and academic activities outside the classroom.

In 2004, happenings again converged. Linda Cain retired, shifting FYE responsibility to Pamela Person. Change at the FYE helm coincided with the arrival of a new university president and the start of extensive strategic planning. The Center for First-Year Experience and Learning Communities, a unit within the Office of the Provost, was opened and quickly thrust into the strategic planning process initiated by the new President. The goals for FYE became further specified through the campus-wide process of re-visioning the University.

Like the programme itself, financial support for FYE evolved through varied, interwoven channels. Initial funding came entirely from Ohio Success Challenge funds. UC defined at-risk students to include all first-year students. This meant that all efforts designed to help first-year students achieve a baccalaureate degree became eligible (competitively) for support from monies the University received through the Ohio Success Challenge initiative. In the early years, some of the money allocated for use by the Associate Provost and then by the Center for First-Year Experience and Learning Communities for central development of programmes was redistributed to colleges and units to support teaching first-year seminars or to hire staff to coordinate college-level FYE programmes. Funding responsibility has since shifted. Most courses, as well as college-level staff support, are paid for by the colleges and units with resources under their direct control, which may include Success Challenge allocations. Several one-time, external and university grants provided much needed seed money to pilot and expand FYE efforts. For example, Pamela Person, Director of Learning

Communities and now also FYE, and Marianne Lewis, Associate Professor and then Associate Dean in the College of Business, received a grant from the Ohio Learning Network in 2002-03 that supported pilot learning communities in the College of Business. That project evolved into the college's innovative Fast Track programme (described later in this chapter). As part of the University's strategic planning process, in 2006, and again in 2008, the Center received one-time, internal grant allocations to support programme enhancements and further incorporate FYE as an integral part of UC's undergraduate experience. Starting in 2009, the Center will receive permanent monies from general funds to continue implementing and expanding the strategic plan. Ohio Success Challenge funds still provide the core funding for Center initiatives and personnel.

Resulting FYE programme

FYE at the University of Cincinnati grew incrementally yet purposefully, moving from separate initiatives to the foundation of the University's revised undergraduate experience – from early adopters to mainstream faculty, and from small, more easily managed professional colleges to the large, liberal arts core of the university. This growth pattern enabled increasing faculty buy-in, a manageable ramp-up of financial support, and the accumulation of a sizable cadre of professors and administrators who recognised how the ideas embraced by the FYE programme could be expanded across campus. As a result, today nearly all first-year students participate in multiple, high quality interactive academic and social experiences aimed at engaging them with the university, contributing to integrative learning, fostering civic and professional responsibility and forwarding intellectual and self-management skills needed for lifelong learning. The unique, university-wide approach that now underpins all centralised as well as unit-based FYE programme components is titled 'Great Beginnings.' The 'Great Beginnings Statement' describes the comprehensive, ambitious, and yet achievable programme built around responsiveness to ongoing student reflection and a common set of targeted learning areas (see Appendix 1. For the complete Great Beginnings Statement, see: http://www.uc.edu/fye/documents/Great_Beginnings_Statement.doc.pdf).

FYE in the broader context of the undergraduate experience: Integrated Core Learning

In September of 2003, Dr Nancy Zimpher began her appointment as President of the University of Cincinnati. She immediately initiated systemic academic planning, involving hundreds of stakeholders, faculty, staff and students (http://www.uc.edu/uc21/). The process led to a commitment to increase student centeredness and academic excellence, as well as to other research and community-related priorities.

A core group of faculty and administrators, led by Pamela Person and then Associate Dean of the College of Arts and Sciences, Gisela Escoe, worked to integrate ideas for improving student learning and university best practices. The resulting vision, Integrated Core Learning (ICL), describes the University of Cincinnati's signature approach to undergraduate education. ICL was named to reflect its call for the

thoughtful integration of the General Education core, major course work, experiential education (e.g. undergraduate research, practicum, clinical placements, cooperative education, and service-learning experiences), co-curricular activities, and faculty-guided reflection throughout the undergraduate curriculum. ICL underscores the University of Cincinnati's strengths and places them into a holistic framework that supports student learning from their first year through graduation. By purposefully weaving high impact practices and experiences with high quality, rigorous instruction, ICL emphasises the application of liberal learning in real-world contexts and is the essence of a 21st-century urban research institution. The curriculum itself is built around three touch-points in the undergraduate experience. These points provide all students with key opportunities to develop, review, and act upon a learning plan for degree completion. It begins with a significant first-year experience as its cornerstone and continues with opportunities for self-reflection and on-going support through mid-collegiate coursework and experiences. Culminating with a senior-year experience, ICL provides students with the necessary tools to transition to a profession or graduate programme and continue to assume ownership for life-long learning and social responsibility (see Appendix 2). These three touch points are summarised as follows:

- *Great Beginnings*: The foundation of UC's FYE approach is responsive to ongoing student reflection and a common of set of targeted learning areas as described previously.
- *Mid-Collegiate Launch*: Purposeful mid-collegiate programming and student reflection provide on-going support as students proceed through their college career.
- *Finale*: ICL culminates in a senior year experience that aids students' transition to a profession or graduate school and toward the pursuit of life-long learning and social responsibility.

ICL calls for the thoughtful integration of the many facets of an undergraduate's academic, co-curricular and non-academic life. By forging key dialogues and partnerships among the student, advisor, professor, employer, and the community, ICL provides a framework for chronicling the student's development from convocation through graduation and beyond. It also calls for students to purposefully reflect upon their own pathways and to continually maximise their progress as they face various important academic and life decisions.

Implementing the integrative approach: FYE innovation in the College of Business

The University of Cincinnati's FYE efforts offered valued guidelines and support, while providing considerable flexibility. This blend empowered its 13 different colleges and their respective programmes to implement FYE in ways appropriate to their wide-ranging needs. Innovations at the College of Business serve as illustration.

In 2002, the College of Business was a first-mover in FYE on campus, motivated by two factors. First, unacceptable retention and student satisfaction rates highlighted the need to better socialise incoming students. The freshman year was seen as a

vital time for setting student expectations and building curricular foundations. FYE efforts, such as Learning Communities, also offered opportunities to engage students, building stronger links among students and between students and the institution. Yet our programme, like most at that time, included only a single business course in the first year, as students focused on completing general education requirements across campus. Second, survey and qualitative feedback from business faculty and employers suggested that our students lacked professional development, particularly in the 'soft skills' of management. That same year, the Association to Advance Collegiate Schools of Business (AACSB), which is an accrediting body of business schools, published an extensive study mirroring these concerns (AACSB, 2002:19). Specifically, the report identified communication, leadership, and interpersonal skills as the best predictors of business success. Yet these same skills were found to be least developed in business programmes. The College turned to FYE as a means of emphasizing and starting to build these soft skills.

Initial implementation

College implementation began with a Learning Communities pilot project in 2002. A dedicated team of faculty and staff, university- and college-level leadership, and funding from an Ohio Learning Network Grant fueled the effort. Starting small, we initiated three learning communities comprised of 20 to 25 students each taking courses together. The learning communities included the lone business course, Management Skills Practicum (MSP) and two general education courses (such as English, Math, Psychology and/or Communications). Yet interestingly, the most important outcome of the pilot was the development of a learning community *among the involved faculty, staff, and administrators*. Their ongoing conversations spurred creativity and higher aspirations for FYE.

This team acted upon their new insights by expanding the college's FYE efforts dramatically. First, they determined that all first-year Business students would participate in a learning community. Second, they focused on revising MSP to enhance the student experience within the college. This lecture-based course had been taught two days a week in a large auditorium. To enable both efficiency and socialisation, the team developed a creative solution. One day a week, the class would meet in 70-student sessions (combining three learning communities) for lectures and guest speakers. The other day, students would meet with their learning community in breakout sections dedicated to cases, discussions and problem-solving applications. In addition, each learning community breakout section was led by two student mentors, an undergraduate teaching assistant and a team leader.

The most innovative element of the expanded FYE, however, is Project Fast Track. The development team sought an experiential project that students could complete with their learning community, and that would demand application of the softer managerial skills. The result, Project Fast Track, paired each learning community with a leading corporation to conduct intensive research. Greater Cincinnati is home to some of the world's most admired corporations from Procter & Gamble and Chiquita to Kroger

and General Electric. The opportunity to learn about and from such business leaders offered a tremendous learning opportunity. Participating firms provided freshmen a 'live' context for exploring vital business concepts and best practices. The firms also provided the freshmen with opportunities to interact professionally with their managers in different business functions.

Indicators of progress

Raising student retention between their first and second year was a central goal of the college's FYE initiative. More specifically, the faculty, staff and administrative participants sought to raise retention dramatically from 78% in 2002 to a rate more in line with the 86-89% rates posted by the most selective and prestigious colleges on campus. The team saw a slow but steady increase. Four years after its launch, retention had risen to 83% (entering class of 2006, returning autumn 2007).

The much more challenging goal was evaluating the development of students' 'soft skills' in business. Thankfully, the college had a unique resource at their disposal: cooperative education (co-op). Cooperative education is managed by UC's Division of Professional Practice and is central to the University. Indeed, cooperative education was founded at the University of Cincinnati in 1906 (Reilly, 2006). Involving alternating quarters of coursework and professional experience, co-op offered the potential for employers to evaluate students' skills. At the end of each co-op rotation, students' supervisors completed an extensive survey, gauging student performance.

Working with UC's cooperative education faculty in our Division of Professional Practice, the College of Business FYE team explored the question: Does the integrative first-year experience positively impact students' performance on their first co-op experience? A students' first co-op occurs in their sophomore (second) year, offering excellent timing for assessment. Focusing on the initial FYE implementation, the college FYE team compared the performance of students who had no FYE to those with the new programme. Appendix 3 provides the items measured and the change in mean performance and standard deviation. The hope was to see the mean increase (indicating improvements in the skill area) and the standard deviation decrease (indicating greater consistency among students' performance).

Although the sample size was small, the results provided insightful direction moving forward. The items indicating communication, work management, leadership and teamwork indicated nearly unanimous improvement. In particular, Project Fast Track seemed a highly successful addition. Several items showing the greatest and statistically significant improvements could be linked to this hands-on and intensive team project, as students seemed more capable of working with others, functioning in teams, and managing projects. However, the results of the professionalism items suggested areas for further revision and improvement.

Continuous improvements

Within two years of its launch, the College of Business FYE was expanded by adding a second business course – the 'Pathways to Business', which is taught in each learning

community. This course emphasises academic planning and personal development skills. Academic planning elements include advising, campus engagement including co-curricular opportunities, and career goal refinement. Personal development components of the course, however, seek to enhance students' professionalism in terms of image management, social networking, accountability and personal motivation. Early student feedback and retention data suggest that the addition is making a positive impact. Yet more rigorous assessment is needed, and will occur as these students enter their initial co-op positions (mostly in corporate settings) enabling performance comparisons before and after the expanded FYE.

Broader impact: results of this integrated first-year experience

Moving back to the university level, we now examine the impact of these integrative efforts. More specifically, we will discuss the following evidence of positive momentum at the University of Cincinnati:

- First to second year retention has increased by nearly 10% in less than 10 years with a corresponding upward trend in graduation rates.
- Student engagement has increased dramatically from below to above the average for similar institutions as measured by the National Survey of Student Engagement (NSSE).
- Student satisfaction similarly has increased to levels above those experienced by peer institutions as measured by the Student Satisfaction Inventory (SSI).

Such momentum is the powerful result of integration (of integrating FYE efforts across a large and varied undergraduate population) and of leveraging FYE as the foundation of a comprehensive academic plan. Data from the global measures (retention/graduation/academic success data, NSSE, SSI) are well disseminated throughout the University to inform deans, divisional managers and unit heads about the University's strengths and challenges in creating effective learning environments. Additionally, these and other measures of the learning environment are available on the UC website (http://www.uc.edu/institutionalresearch) for individual units and personnel to review when considering changes to curriculum, pedagogy, instructional resources, and student services.

Retention, graduation and academic success rates

The University of Cincinnati's first to second year retention rates for first-time full-time baccalaureate students has steadily increased from 73% in 2000, when Success Challenge programmes including learning community and FYE programmes were launched, to the current rate of 82%. Until standards changed slightly for students entering in fall 2006, this rise was accomplished *without* a corresponding increase in admissions standards.

Graduation rates have been increasing in a corresponding manner. Much of this trend is attributed to the retention and academic enhancement programmes supported through Success Challenge. Preliminary analysis of six-year graduation rates appears

to bear this out: Success Challenge participants from the 2000 class posted a 57% graduation rate, whereas the overall graduation rate for the 2000 cohort is 52.3%.

The Center for First-Year Experience and Learning Communities has tracked the apparent impact of learning community enrolment since 2002 on retention and academic success. A comparative analysis of the 2002-03 participants versus a control group of comparable sample size, admission requirement status (selective/open college), gender, race, credit load (full-time), and non-majors (declared/undecided), score on the ACT college entrance exam, and high school grade point average found the following:

- Students enrolled in a learning community in 2003 fall were retained at a significantly higher rate than the control group in subsequent academic terms: winter 2003, spring 2003, and autumn 2003.
- Students who enrolled in a learning community for three quarters (one academic year) had a significantly higher next-year retention rate (90%) than the control group (72%).
- Students enrolled in a learning community had significantly higher GPAs for fall, winter, and spring and earned significantly more cumulative credit hours than the control group.
- Students who enrolled in a learning community for three quarters (one academic year) had significantly higher fall term, winter term, and cumulative GPAs and cumulative hours than those students who enrolled for only one quarter.

In response to these findings, and in particular the dramatic impact that three quarters (one full academic year) of learning community enrolment appeared to have upon student success, the Center has aggressively sought:

- to increase learning community enrolments across the University; and
- to enhance programme features that encourage students to remain enrolled in their learning community for their entire first year of college.

We have been able to increase the number of students enrolled in learning communities from 450 in 2001-02 to 1,750 for 2007-08, while also increasing the percentage of those students who enroll in their learning community for three quarters from 8% in 2001-02 to 50% in 2007-08. As the total number of students enrolled in learning communities has grown – to the extent that in some colleges, like the College of Business, it is equivalent to the total first-year student enrolment – there is no longer a significant difference in retention rates between students enrolled in learning communities and those who are not. Yet, the overall retention rate for first-year students has steadily climbed – an expected outcome given the pervasive reach of learning community enrolments. Furthermore, each year since 2002, including through last year's 2006 entering class, students enrolled in learning communities for three quarters have been retained from first to second years at an 89% or higher rate.

Student engagement

The University of Cincinnati, along with approximately 1,200 other colleges and universities in the United States, participates in periodic administrations of the NSSE. The NSSE is designed to assess students' engagement with their institution around good educational practices that have been empirically demonstrated to impact student success. The results then reflect behaviours by students and institutions that are associated with desired 'outcomes of college' (retrieved August 30, 2008, from http://nsse.iub.edu/html/quick_facts.cfm). The NSSE has become a highly respected, standardised benchmark instrument that figures prominently in current national debates about institutional accountability for student success and learning outcomes. The results reports enable institutions to benchmark against themselves from one administration to another to track continuous improvement, as well as to compare the engagement behaviours of their students to those of students at peer institutions. The NSSE is a valuable measure of FYE impact because it measures student engagement of two student classification subgroups: first-year students and senior students. Institutions, then, can track first-year student engagement over time from a cohort's first-year through their senior year as well as engagement behaviour from one cohort of first-year students to another cohort, some years hence.

The University of Cincinnati's student engagement improved vastly between the 2002 and 2005 administrations of the NSSE. Results of the 2005 and 2007 administrations were similar to one another with a slight decrease in first-year engagement and a slight increase in senior-year engagement. Beyond the aggregate engagement rates, we further examined those specific items that showed substantial increases between the 2002, 2005 and 2007 administrations. These items posted a strong level of statistical significance ($p<.001$) *and* a moderate to large effect size (.4 or greater). The results of our examination are summarised as follows:

The first-year student:

- uses e-mail to communicate with an instructor;
- receives prompt feedback from faculty on academic performance;
- experiences contributing to writing clearly and effectively;
- experiences contributing to speaking clearly and effectively;
- experiences contributing to working effectively with others;
- experiences contributing to voting in local, state, or national elections;
- experiences contributing to developing a personal code of values and ethics; and
- experiences contributing to the welfare of the community.

The senior-year student:

- experiences contributing to voting in local, state, or national elections.

UC's environment:

- emphasises helping students cope with non-academic responsibilities; and
- emphasises support to thrive socially.

Two other notable changes likely had a positive impact on first-year engagement. The first was the introduction of OneStop, an integrated approach to registration, financial aid, bill paying and other related student services. Cross-trained specialists located in a centralised location provide customer-service functions. The OneStop website similarly offers integrated on-line functions. The second significant event was the conclusion of the University's master building project. The opening of new as well as renovated buildings provided student organisation event space, recreational facilities, and ready access to student services, resulting in more vibrant co-curricular opportunities. The addition of new 'smart' classrooms provided faculty with more resources and options to design engaging course-based learning experiences that incorporate the use of technology.

According to the 2007 NSSE administration results (NSSE, 2007), the University of Cincinnati's engagement rates are in keeping with our peers – even a bit higher than the average rates at our doctoral extensive peer institutions. The University of Cincinnati's learning environment can be distinguished from our peers' by examining specific, statistically significant items with an effect size approaching moderate to large practical significance for any one of our Association of American University, Carnegie, and Urban Institution peer categories:

The first-year student:

- prepares two or more drafts of a paper or assignment before turning it in; and
- participates in a learning community.

The senior-year student:

- has or plans to participate in practicum, internship, field experience, co-op experience, or clinical assignment.

Student satisfaction

Complementing measures of student engagement with the university are measures of students' satisfaction with their university experience. The Student Satisfaction Survey (SSI) indicates the degree to which students are satisfied with various university services, programmes, and experiences relative to the importance students have placed upon those aspects of their interaction with the university (retrieved August 30, 2008 from https://www.noellevitz.com). Like the NSSE, SSI is used by hundreds of institutions across the United States and provides another set of benchmarks by which to measure programmatic impact and continuous improvement.

The University of Cincinnati's student satisfaction rates were stable between 2003 and 2006 administrations of SSI, but rose significantly on every scale between 2006 and 2008. Of the 12 scales measured by the SSI, students indicated that instructional effectiveness and academic advising matter most to them. These are, arguably, also the areas that most influence the overall learning environment.

Instructional effectiveness

Scale items representing the most significant improvement (.001) in terms of closing the gap in students' desired level of UC performance versus their satisfaction with UC performance, in descending order from greatest to least (but still highly significant) amount of gain are:

- commitment to academic excellence on campus;
- competence of graduate teaching assistants as classroom instructors;
- ability to experience intellectual growth at UC;
- faculties care about students as individuals;
- faculties takes student differences into consideration as they teach a course;
- content of courses within majors is valuable;
- there is a good variety of courses provided; and
- faculties are usually available after class and during office hours.

Academic advising

Scale items representing the most significant improvement (.001) on this scale, again in descending order of their impact on closing gaps between students' ratings of their desired and experienced levels of satisfaction, are:

- help from academic advisor to set goals to work toward;
- academic advisor's concern about success as an individual;
- academic advisor's knowledge about requirements in the major; and
- major requirements are clear and reasonable.

Conclusion

The purposeful yet organic process described in this chapter has yielded college FYE programmes that have developed in common, university-wide directions that can be supported by faculty, staff, and administration. Varied strengths of programmes, areas of emphasis, and the needs of particular student cohorts are pursued in unique, unit-specific ways. Yet these variations simultaneously address the central goals and vision laid out in our *Great Beginnings Statement*.

By allowing FYE to address unit-specific concerns, we found a relatively large number of faculty, staff, administrators and other stakeholders interested in helping design, implement, and refine FYE initiatives. As we have seen, in the College of Business this approach gave rise to a coherent vision for learning communities and innovative corporate partnerships that help students build important business-related 'soft skills' and confirm their major selection via experiential learning. Other UC colleges have developed similar multi-pronged yet integrated approaches. For example, the College of Allied Health Sciences' programme emphasises faculty mentoring and academic advising. This programme also utilises learning communities to integrate a year-long, first-year seminar, a service-learning component, and a non-credit course facilitated by a peer leader. The result is a rigorous set of first-year Science and General Education courses.

By tying FYE into the greater context of Integrated Core Learning, we assure an open flow of ideas between General Education faculty and faculty in specific majors. This leads to a natural linking of various pieces of the undergraduate curriculum. Experiential learning opportunities, such as professional-academic collaboratives, service learning, and undergraduate research – which had traditionally been concentrated in upper-division work – are increasingly found in the first year. Likewise, common first-year experiences, such as focused student reflection, general education courses linked with major-based courses or experiences, and opportunities for writing, are now more prevalent in the later college years.

Challenges

Of course, the somewhat opportunistic and decentralised approach described also comes with challenges. Faculty support developed naturally as we appealed to faculty interests and skills and to their commitment to increasing student success within the major. Our approach, however, did not result in the central funding that often accompanies such an initiative. From the university administration viewpoint, this meant that significant, successful programming was built with very limited permanent funding. Yet, at the local level (for example, from the view of a department contributing faculty to FYE programming) this may feel like an uncompensated overload or an externally generated initiative that replaces some other departmental or collegiate priority.

Future directions at the University of Cincinnati

The University of Cincinnati's faculty recently voted to modify the University's General Education Core. The new programme formally infuses the philosophy of Integrated Core Learning throughout all baccalaureate programmes. As such, it specifically requires each college to have first-year curricular components that are informed by the *Great Beginnings Statement.* The revised General Education Programme was developed by a faculty committee with representation from each college, our Honours Programme, university libraries, and faculty senate.

Lessons learned

In compiling the history for this case, we became increasingly aware of important factors that enabled the innovative integration of FYE efforts across our institution's large and varied undergraduate population. Most broadly, we found that a successful FYE programme evolves organically and must reflect the unique mission, characteristics, and personality of the sponsoring institution, its students, faculty, and staff. More specifically, the following factors seemed to fuel this development:

- *Provide solid groundwork*: Workshops and development opportunities efficiently encourage faculty and staff to become well versed in the international FYE movement, to compare local best practices, and to develop common language and goals around which future efforts can revolve. Such efforts support the beginning of a community of practice, where like-minded, student-focused individuals can explore common concerns and practices.

- *Cultivate and encourage champions*: Well-respected, passionate 'doers' are central to successful expansion and integration of FYE efforts. Faculty and staff leadership should include respected instructors, advisors and other educational professionals, who interact on a day-to-day basis with first-year students. The leadership should also include administrators, whose responsibilities include various aspects of the undergraduate experience.
- *Dream a big dream*: As campus interest in and focus on FYE expands, it is important to articulate an ambitious, overarching vision of where the institution wants to go and what the student outcomes will be. Increased retention may provide important revenue streams, and thus have institutional appeal, but the true goals of FYE should be much more aggressive.
- *Charge a single individual, committee, or office with implementing the FYE vision*: A successful FYE programme involves numerous faculty and staff across campus. Clearly identified leadership is essential for motivating, coordinating, and continually promoting this effort.
- *Be adaptable and tenacious*: Pursing the FYE vision will require starts and stops, changes in scale, and the creative pursuit of resources (time and money). Do not give up.
- *Take advantage of institutional transitions to position FYE efforts in a broader context:* Times of institutional change, such as the installation of new leadership, the creation of a new academic plan, or the kick-off of a university capital campaign, provide outstanding opportunities for the integration and expansion of campus FYE efforts.
- *Recalibrate your efforts as students and faculty change*: Student needs, pre-collegiate preparation, expectations and educational goals continue to evolve as do the pedagogies, educational technologies, and the desired learning outcomes of the faculty. It is essential that a plan be put into place to assess these changes and to continually update FYE efforts.

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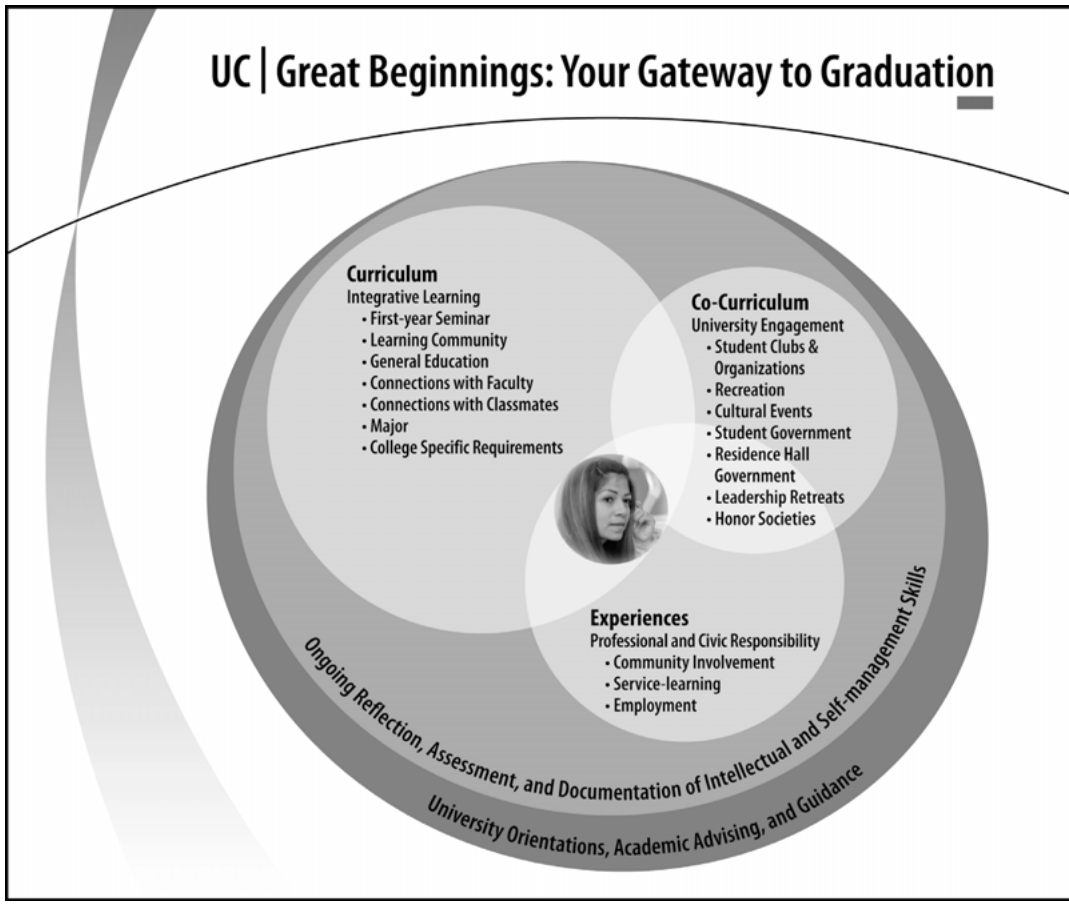
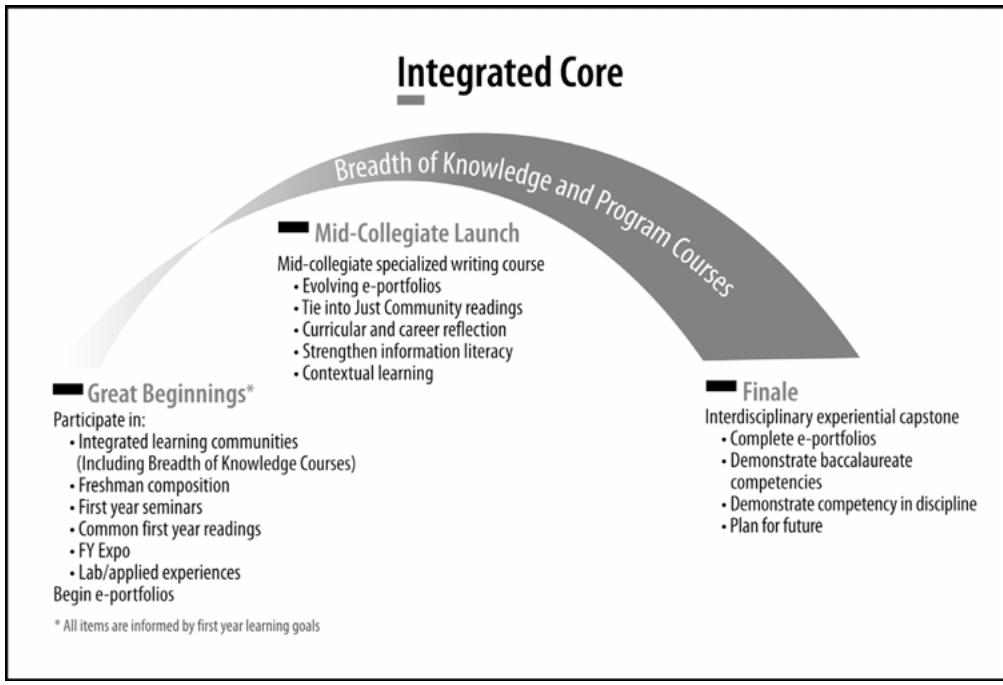
Appendix 1: Visual of FYE Programme at the University of Cincinnati



Appendix 2: Integrated Core Learning at the University of Cincinnati



Appendix 3:
Leveraging employer feedback to assess soft skill development in the FYE

Measured parameter	MEAN		STDEV		n		MEAN		STDV	
	Gr.1	Gr. 2	Gr.1	Gr. 2	Gr.1	Gr. 2	Δ	Conf.	Δ	Conf.
Professionalism [Alpha = 0.935]										
Exhibits good listening and questioning skills	4.29	4.15	0.71	0.99	28	20	-0.14		0.28	> 90%
Responsible/accountable for actions	4.50	4.35	0.65	0.75	26	20	-0.15		0.10	
Possesses honesty/integrity/personal ethics	4.59	4.70	0.75	0.57	27	20	0.11		-0.18	
Shows initiative and is self-motivated	4.41	4.30	0.80	1.08	27	20	-0.11		0.28	> 90%
Demonstrates positive attitude toward change	4.35	4.30	0.63	0.86	26	20	-0.05		0.24	> 90%
Understands/contributes to organization goals	4.27	4.42	0.60	0.84	26	19	0.15		0.23	> 90%
Demonstrates flexibility and adaptability	4.48	4.60	0.64	0.60	27	20	0.12		-0.04	
Communication [Alpha = 0.926]										
Writes clearly and concisely	4.00	4.11	0.76	0.76	25	18	0.11		-0.01	
Speaks with clarity and confidence	3.96	4.20	0.84	0.70	28	20	0.24		-0.14	
Makes effective presentations	4.06	4.36	0.94	0.67	18	11	0.31		-0.26	
Exhibits self-confidence	3.96	4.32	0.85	0.75	27	19	0.35	>90%	-0.10	
Work Management [Alpha = 0.923]										
Manages projects/resources effectively	4.08	4.37	0.84	0.60	26	19	0.29		-0.25	> 90%
Sets goals and prioritizes	4.04	4.06	0.89	0.73	25	18	0.02		-0.16	
Manages several tasks at once	4.27	4.22	0.83	0.73	26	18	-0.05		-0.10	
Allocates time to meet deadlines	4.23	4.26	0.95	0.73	26	19	0.03		-0.22	
Leadership [Alpha = 0.893]										
Gives direction, guidance, and training	4.08	4.00	0.86	0.50	13	9	-0.08		-0.36	> 90%
Motivates others to succeed	3.93	4.00	0.88	0.60	15	12	0.07		-0.28	> 90%
Manages conflict effectively	4.06	4.25	0.83	0.75	17	12	0.19		-0.07	
Teamwork [Alpha = 0.782]										
Works effectively with others	4.41	4.75	0.75	0.44	27	20	0.34	>90%	-0.30	> 90%
Functions well on multidisciplinary team	4.28	4.65	0.61	0.61	25	17	0.37	>90%	-0.01	

Group 1: No First Year Experience (control group) / Group 2: Integrative First Year Experience

Bold indicates statistical significance

Source: Lewis et al.*, 2008:86-95*

CHAPTER 7

THE FIRST-YEAR STUDENT EXPERIENCE AT THE UNIVERSITY OF BOTSWANA

MICHAEL GREGORY

Introduction

In 2006, the University of Botswana carried out a research project on the first-year experience (FYE) through a perceptions and expectations study. The results from that survey signalled some issues where new students identified gaps between their expectations and experiences. The perceptions study was followed up in 2007 by focus group research with new first-year students on their early experiences. Concurrently, in 2007, at the time of registration, a survey was carried out among all students returning into the second year of full-time programmes, to ascertain their expectations and level of satisfaction with a holistic range of experiences in their first year.

This chapter outlines the results of these studies and suggests actions necessary to improve student success and deliver institutional improvement. The chapter is divided into three parts:

1. What does the literature tell us?
2. What does our institutional research tell us?
3. What needs to be done for institutional improvement?

What does the literature tell us?

Much of the literature on the student experience, which is extensive and goes back to the early 1970s (McInnis, 2001; Pascarella & Terenzini, 1991; Tinto, 1975, 1993), is concerned about student retention levels, as well as providing the right experience to ensure improved student success.

Few students drop out at the University of Botswana (UB). This is because of the way that government funding and allowances operate to support students on full-time undergraduate programmes. Students are inclined to complete their programmes more slowly in order to take advantage of living allowances and/or to extend their

years of study to make up for earlier failure or to postpone the uncertainty of graduate-level employment. In 2008, 31% of UB undergraduate students on four-year bachelor degree programmes who enrolled in 2002/3 were still enrolled five years later, and 9% remained enrolled six years on. In Law and Engineering, which are five-year programmes, 25% remained in enrolment for a sixth year. The failure rates in the institution are variable in first-year courses. A random sample by the author of 16 Level 100 first-year courses showed that 10.4% of students failed a course in their first year in 2007. Course failure at the university can only be redeemed in subsequent years of study (although strategies to address this, including a winter semester, are to be introduced in 2009).

According to one estimate in the United Kingdom, the cost of student departure to the UK taxpayer was over £100 million annually (Yorke, 1999). This has risen in recent years, with the percentage of students dropping out of undergraduate education steady at 22% each year from 2003 to 2008. At UB, while retention may not be the issue in terms of student persistence, the proxy for it in terms of students failing course assessment and extension of years at the university results in a triple loss. Firstly, this represents a significant cost to the government in the use of public funds to subsidise the extra years of study. Secondly, the failure to progress through the university system within the required timescale results in the use of vital resources and clogging of physical facilities, and leads to restricted intake or barriers to other strategic priorities (e.g. research and increased postgraduate enrolment). Thirdly, their extra year(s) at university mean students themselves lose lifetime earnings; an issue that will become more important over the next decade as the burden of cost of undergraduate education shifts from the state to parents and students themselves.

Designing institutional strategies for first-year experience programmes based purely on attrition rates is reactive, rather than proactive (Krause, 2006; Yorke & Thomas, 2003). This is largely due to the many different influences on the nature of attrition (e.g. financial, family circumstance and health) (Burnett, 2006) or, in the case of UB currently, the impact of low fees, relaxed government subsidy and the tendency of many students to put off the difficulties in finding graduate-level employment in a constrained job market as mentioned above. The nature of this context in Botswana will change in coming years. A tertiary education sector funding methodology will be introduced, with an emphasis on performance. The number of competing institutions will also grow. Students, parents and other stakeholders will become more aware of what they can expect from a university, and will rightly demand it and base their choice of institution on better information about what institutions provide. A good university will always seek to improve what it does, especially in a more competitive environment. It will understand and be proactive in meeting the needs of its students and endeavour to provide an experience grounded in quality delivery that can help students in their transition from secondary to higher education. They will need to provide a basis from which:

> the first year of university study remains arguably the most critical time for engaging students with their learning community and [equipping]

> them with the requisite skills to not only persist but to be successful and independent in their learning throughout the undergraduate years and beyond. (Krause, 2005)

Yorke and Longden (2008) suggest a number of broad areas of institutional activity through which the chances of student success can be enhanced. These include an emphasis on the first-year student experience as well as a commitment to student learning and engagement, proactive management of student transition, treating the curriculum as one in which social engagement is fostered, and designing it to increase the chances of student success.

There is very little African research on the issue of student persistence, including retention and completion, and so the relevance of Western concepts and models is unknown. These concepts and models might, however, provide useful theoretical constructs that could be tested empirically by research in African universities and that could also be used as possible propositional frameworks through which individual institutions might strategise to improve the experiences of their students.

Two comprehensive models have emerged to guide the study of student persistence. At UB this would involve factors such as attention to study (pass/fail, progression, retention and time to completion). Tinto's Student Integration Model (Tinto, 1975, 1993) advanced the idea that the fit between the student and the institution plays a key role in the likelihood of persistence. Accordingly, the degree of institutional commitment a student feels, as well as the student's subsequent persistence, is shaped by the congruence between student motivation and ability, and the institution's academic and social characteristics (Filkins, Kehoe & McLaughlin, 2001). As Yorke and Longden (2008) have subsequently identified, there are complex factors that influence student persistence and some of these are external to the institution. These are missing from Tinto's proposition (Bean 1983; Nora & Cabrera, 1993). These theoretical constructs have generated numerous studies, many of which have focused on student stratification, such as gender, age and ethnicity. This includes work in New Zealand by Zepke, Leach and Prebble (2003). The 13 propositions on how to improve student outcomes developed by Zepke influenced the methodology for conducting the UB survey on returning second-year students and their perceptions of their first-year experience. Other research, which looks at a range of factors that potentially affect persistence, was also influential in the development of the university's approach to the first-year student experience. These include in particular the importance of student services (Turner & Berry, 2000), the interactions between students and academic staff, and support (Nagda, Gregerman & Jonides, 1998). The roles played by learning communities in and outside the classroom are of key importance in student success (Baker & Pomerantz, 2000).

The UB concept of its First-Year Experience (FYE) and Living and Learning Communities Programme is further influenced by the trend in higher education that reflects a shift in emphasis from the lecturer towards bringing the student to the centre stage of university life. While a lecturer may be excellent, if the student is not ready to learn, not much learning will take place and the success of the university will

be at risk. Therefore, creating an environment that is conducive to and stimulating for learning has become critical. This embraces the holistic student experience, ranging from what happens in the different physical dimensions of where students learn – whether in lecture halls, student accommodation or informal areas – to the facilities and the quality of the campus and services provided.

Significant elements of learning take place outside the classroom as students interact socially and live and learn with others in their community. This clearly relates to the UB's Living and Learning Communities component in the FYE Programme, the goals of which are:

- to assist students to adapt to relevant university communities that are conducive for learning and comfortable living;
- to create an interactive process between staff and students and to provide a learning environment in a community spirit and setting; and
- to provide an opportunity for students to know each other as members of a community that strives to make their community safe and secure.

What does our institutional research tell us?

First-year and new students' perceptions and expectations survey, 2006

In 2006/7, a survey of new and first-year students' expectations and experiences was administered to the new and first-year full-time student population with a total of 1,102 responses representing 32% of the relevant population. Two general areas for improvement were identified: firstly, entry and early experiences needed to be improved, including the admissions process, and secondly, student expectations of learning in a tertiary environment needed to be adjusted and shaped to improve study motivation and to relieve the over-expectation of reliance on lecturers and spoon-feeding.

Focus group research on new students' early experiences, 2007

In 2007/8 it was decided that rather than repeat a variation of the previous survey, it was necessary to study in more depth the perceptions of new students through semi-structured focus group interviews. The aim was to investigate more thoroughly some of the qualitative issues that had been flagged for improvement in the 2006/7 survey. The pre-identified areas for exploration were:

- the academic registration process;
- the accommodation registration process;
- the orientation programme; and
- student expectations of tertiary study.

Four focus group interviews were conducted with thirty-one returning second-year students from the six faculties. The interviews were conducted by trained facilitators during the first two weeks of November 2007. The analysis focused exclusively on the four focus areas, namely, systemic matters relevant to students' expectations and experiences of the UB processes and environment during registration, orientation

and transition. The common experiences and views of these thirty-one students are considered indicative of how new students may experience and interpret the service provided by UB and how they may construct their reality from those experiences. The implication is that their persistence in terms of motivation to learn and succeed will be affected in some way by these early experiences.

The research found that the university processes involved in delivering services to students typically involved students in situations they found stressful, frustrating and unhelpful, such as searching for venues, getting lost, queuing for hours, unfriendly staff, lack of correct information and having to make quick and uninformed decisions. They described a service culture in which there is lack of communication between operational units, lack of professionalism and customer focus, a tendency to blame 'the system' for service failure, and a culture of expecting the student to wait for service.

Staff dealing with admissions, for example, were described as 'not very helpful, not very friendly at all'. One student observed that the admissions service provides the student's first impression of the university and that 'they don't give you any reason to come here'. Consequently the student's impression is, 'I don't want to come to this institution where nobody is approachable.'

Many comments illustrated a widespread malaise in the culture of service provision. Change management will clearly be required to address the serious problems identified.

In respect of the academic registration process, the students variously reported the discrepancy between information they expected to receive and that which they received:

> I remember asking for the calendar to know what courses I will be doing you know like in specifics like maths and statistics and they just said 'no, we can't give you the calendar, you just get the calendar when you are registered' which is pointless to me ... there is a total lack of transparency, total lack of information. (student in the Faculty of Business)

As a result of the 'confusion, which started during registration' (including not understanding what the course was about), several students ended up enrolling for elective courses that they later considered irrelevant to their programme, such as Zoology for a nursing student. This has clear implications for graduate employability. Students also felt under pressure to make decisions on the spot. They felt ill equipped to make quick decisions that they contemplated should have been based on consideration of information provided in advance and discussed with their parents. Students reported their concerns that they ended up choosing electives because of clashes with cores, and that they had little time to reflect on their options with parents and peers. All the groups commented in some detail on the need for more information prior to registration.

Students were generally very critical of the organisation of the academic registration process, which many described as 'disorganised', 'haphazard', 'confusing' and 'long'. Students did make a number of suggestions about how the registration process could

be improved, including online registration (which was introduced at the University during 2008), extending the registration period, subdividing student groups and registering them on different days, using larger venues, better signage and improvement of staff through training.

The third area discussed by students in the focus groups was the timing of accommodation registration. They reported that they were not allowed to register for accommodation until the academic registration process was complete. This was of great concern to students from outside Gaborone, where the main campus is located. These students, who may have travelled up to 1,200 kilometres, frequently arrived the day before registration and were distracted during the process by anxiety about their luggage and where they were going to sleep:

> People who come far, like Maun. Just imagine those people who had to go around with their luggage. I mean, it was so painful to see those people who had been long here. Some were saying they were even sleeping in some people's garden. They don't even know them, they just asked for accommodation and when they came here again, they thought they will be registered. I mean they had to queue and wait. (student in the Faculty of Social Science)

Like the academic registration process, accommodation registration was characterised by the students as long and tedious. One of the steps in the process was signing up for meals. In respect of this step students complained about unfortunate timing, inability to make informed decisions, incorrect recording of information, failure to reconcile information within the system and inflexibility of the system. When they signed up for meals, they did not have the opportunity to try the food in the refectory, and did not know their timetables or the refectory hours. As a result, some signed up for meal plans, which they later could not take.

Students were critical of residence assistants and to a lesser extent, wardens, who were not as accessible as students would have liked them to be, but felt the cleaning service was delivered by friendly, helpful and supportive (mainly) women. These were characterised as 'like a mother or an aunt', dispensing advice and encouragement to students.

The students reported little experience of orientation. This was surprising, for one of the goals of the UB First-Year Experience was to introduce the First-Year Programme. The aims of the programme are:

- to assist students to make a successful transition from life at secondary school to life at university;
- to assist students in acquiring the life skills necessary for their survival on campus and for success in their studies and in life;
- to help students to prepare for life beyond university;
- to cultivate a campus culture that values student success; and
- to make students proud of and identify with UB.

After completing a one-week peer orientation programme, students supposedly enrol for a semester's seminar to continue learning more about UB and its resources, to acquire life skills and to make the transition from secondary to university education. Nevertheless, many of the students either appeared to be unaware of any orientation programme that might have been offered, or knew about it but were unable to participate because they were still busy with registration and accommodation procedures. Some tried to participate but found that the venue had been changed and details of the new location had not been provided. No students reported that they had benefited from orientation although some felt they had been disadvantaged by missing out on the opportunity. Participants spoke at length about things that were confusing, embarrassing or mysterious to them as new students, which suggests that they have little idea of the differences between school and university study. The late realisation of this may account for some of the failures among first-year students. Their comments clustered around:

- not understanding the expectations of UB;
- not understanding how to progress through university;
- difficulty in adapting to a new learning environment; and
- not knowing how to get books.

The following problem statements are derived from the findings of the focus group activities:

- *New students are not provided with the information that they need.* This includes obtaining the right information at the right time, being provided with information they can understand and receiving information that is accurate.
- *The sequencing of steps in the registration/orientation process is problematic.* Accommodation is the first thing students need. Orientation is needed before registration.
- *Organisation and resourcing of the processes are inefficient.* Online registration, more registration points, a staggered process and reliable technology are required to process large numbers of students efficiently.
- *Staff are not customer focused.* This includes being responsive to student communications, being helpful and friendly, proactively anticipating new students' needs and designing customer service processes so that students are not inconvenienced.
- *The transition of high school leavers to university is not effected.* Staff need to be aware of the following with regard to first-year and new students:
  - The jargon, conventions and practices of a university are unfamiliar to high school graduates.
  - Many are away from parents for the first time.
  - Many are unfamiliar with the UB campus and are accustomed to a high level of personalised guidance.
  - Many are not used to making their own decisions and discovering things on their own.

It is surmised from this research that these gaps or problems cause difficulties in relation to student integration and affect students' persistence. In particular, these gaps or problems contribute to first-year student failure and the number of retakes, and further down the line, the extension of their studies beyond the normal four or five year time-frame to complete an undergraduate degree.

Survey of returning second-year full-time undergraduates on their first-year experience

In addition to the research on the early experiences of new students, the University also wished to gain a more informed perspective on the overall student experience from students who had completed their first year. In the UK, recent work has been done to assess the level of student satisfaction with their first-year experience (Yorke & Longden, 2008). The work was conducted among those students who had left their institutions before completing their studies. In Botswana, tracking students after they have left is difficult, but also, as reported earlier, very few students leave the university. It was therefore considered more important to understand students' levels of expectation of the range of activities that constitute student life and learning, as well as level of their satisfaction. This would then serve as the basis for deeper research to be conducted in 2009 and beyond on how these relate to student retention, achievement, progression and time to completion.

During registration week in August 2007, a survey was conducted on the returning second-year students. The survey was designed to capture student expectations of and levels of satisfaction with their first-year experience and to identify gaps in performance, namely, the difference between expectations and levels of satisfaction. Students were asked to give two ratings to each statement about their university experience – firstly, the importance of aspects of their experience, and secondly, how satisfied they were with their actual experience. The instrument used four-point Likert scales to ensure that students could not 'sit on the fence' and that their responses would provide clear messages to the University about what was important to them and how they rated the performance of the University. Importance and satisfaction scores were each completed on a scale of 1 to 4 (although A to D was used), with 1 (or A) being the highest score (very important/very satisfied) and 4 (or D) the lowest score (not at all important/not at all satisfied). Any gap between what students expected and what they experienced was calculated by subtracting the satisfaction or performance score from the importance or expectation score. A high gap score indicates that student expectations were not being met.

A negative gap score (i.e. positive situation) may indicate that the university is investing resources in an area that is not important to students. (There were in fact no negative gap scores in the survey results.) A gap score indicates areas to which the university needs to devote attention. The work of Zepke et al. (2003), which developed 13 propositions for improving student retention and success, influenced the formulation of 39 questions (see Table 7.1) clustered in university services in the following areas:

- teaching, learning and assessment;
- courses;
- timetable and examinations;
- campus;
- facilities;
- student support; and
- student diversity.

The target population of the survey was 3,368 full-time second-year undergraduate students. Responses were obtained from 38% of the target population. Table 7.1 summarises the responses and shows the level of student expectations in the high/very high categories and the levels of institutional performance in the satisfied/very satisfied and slightly dissatisfied/very dissatisfied categories. There is no area of the university where students' satisfaction outweighs their expectations, and in some areas the gap between satisfaction and expectation is high. The most striking gap areas are with regard to student support and campus.

Table 7.1 Responses on the level of student expectations

Zepke's 13 propositions		The challenge to UB	Strategy for improvement
1	Institutional behaviours, environment and processes are welcoming and efficient.	Students highlighted the barriers to their assimilation into the institutional culture. There is a discontinuity between the information they need, the advice they are given on courses, timetable clashes and a perceived poor induction process. Accommodation services are below student expectations. Food services are considered poor.	Induction processes should be strengthened. Re-sequence steps that address the issues raised by students in terms of admissions, accommodation registration, orientation and academic registration. Improve physical signage on campus. Assure technology for both on- and off-line registration. Provide refectory information, with flexible meal plans. Improve quality of catering services. Improve warden system.
2	The institution provides opportunities for students to establish social networks.	Students have high expectations for social and sporting facilities and events.	The university has committed itself to expanding its sporting facilities and enhancing social activities and space for students in its new Strategic Plan (UB, 2008b). New student accommodation will integrate social and learning spaces more extensively.

Table 7.1 Continued

	Zepke's 13 propositions	The challenge to UB	Strategy for improvement
3	Academic counselling and pre-enrolment advice are readily available to ensure that students enrol for appropriate programmes and papers.	Students are concerned that they are given inadequate advice on enrolment for courses, and that they sometimes end up on courses inappropriate to their employment needs.	Improved pre-enrolment advice and guidance are necessary.
4	Teachers are approachable and available for academic discussions.	Nearly 40% of first-year students are not satisfied with the availability of lecturers outside class times. There is an over-reliance of students on lecturers to 'spoon-feed'.	Develop strategies for student nurturing by teachers. Integrate resident tutoring into the Living and Learning Communities Strategy. Develop student learning strategies that foster independent learning.
5	Students experience good quality teaching and manageable workloads.	Inadequate feedback, timeliness of lecturers and the quality of instruction are perceived as problematic by students.	The university has adopted a new Learning and Teaching Policy (UB, 2008a). This will require close monitoring and significant investment in change management.
6	Orientation/induction programmes are provided to facilitate both social and academic integration.	Despite a policy that encourages student induction and the delivery of a FYE Programme, few students appear to view this as a means of social and academic integration.	The delivery of induction processes at both the institutional and faculty levels should be reviewed and improved. The impact of the FYE Programme should be researched.
7	Students working in academic learning communities have good outcomes.	Over 70% of students felt that they were able to form social networks with other students and that diverse students were able to become involved in campus life, although this level of satisfaction remained below the expected level.	The university needs to build on this area, which is one of its comparative successes.
8	A comprehensive range of institutional services and facilities is available.	Students have a low satisfaction level with regard to the campus environment and the level of facilities. A low rating accorded to the library and the bookshop was possibly influenced by one-off incidents (e.g. complaints about bag handling at the library and book allowances at the bookshop) that affected the score adversely.	The university library is one of the best in Africa, but more attention needs to be given to student complaints. Improve IT facilities and expand bandwidth. The university is expecting to roll out wireless access, which will provide students with the opportunity to learn in various locations.
9	Supplemental instruction is provided.	This area was not specifically tested in the survey.	

Table 7.1 Continued

	Zepke's 13 propositions	The challenge to UB	Strategy for improvement
10	Peer tutoring and mentoring services are provided.	40% of students expressed their dissatisfaction in this regard.	The university should review and enhance this aspect to capitalise on peer mentoring as an important integrating element in the student experience and to effectively build various approaches to learning communities.
11	There is an absence of discrimination on campus, so students feel valued, fairly treated and safe.	Almost 80% of students were satisfied with this aspect.	This is clearly a positive area of activity and is strongly reflected in the cultural values of the university.
12	Institutional processes cater for a diversity of learning preferences.	The university offers over 2,500 undergraduate courses. Many find this confusing, and it frequently leads to clashes in timetables and results in over-interference with personal or work activities.	The university needs to redefine its academic offerings to ensure relevance and a more coherent and tighter set of curricula, and also to provide subject-focused learning communities. Increased blended learning and flexible learning approaches need to be developed.
13	The institutional culture, social and academic, welcomes diverse cultural capital and adapts to the needs of diverse students.	Students feel the university is accepting of students from different and diverse backgrounds. They have high expectations in this regard.	It appears that the university values in this regard are strongly lived up to. This may be one of the reasons for the low withdrawal rate.

Source: Student Satisfaction Survey Report (2008), Institutional Planning Department, University of Botswana

Most institutions would certainly be concerned at satisfaction gaps showing dissatisfaction above expectation. In the USA, the student satisfaction inventory conducted annually on students in over 800 institutions shows that most students have a higher-education experience that either matches or exceeds their expectations (Noel Levitz & Associates, 2008). In the UK, the report of Yorke and Longden (2008) also indicates that overall students are satisfied with their first year of study. At UB, the data show that all the university's activities are viewed unfavourably by a significant proportion of students, in some cases by around half of the student body. These data should be prompting serious intervention strategies in the institution.

What needs to be done for institutional improvement?

This is a case study of one institution in Southern Africa. It is not known whether it is applicable to other universities in Africa, because there is a dearth of research on the first-year student experience in African universities apart from those in South Africa.

The funding of African universities, the diverse nature of their student populations, staff and institutional outlooks, as well as their stage of development compared to that of Western institutions, mean that care must be taken in the interpretation of comparative results from Europe, North America and Australasia. Different levels of resourcing and cultural and socio-economic reasons, may require different strategies towards student success, as well as different institutional approaches and strategies towards improving the student experience in the African context. Nevertheless, there is an attraction in using the 13 propositions expounded by Zepke in his model. There is a clear congruence between them and the impact students consider important in their experience at UB, and thus the actions that the University may have to take to improve student outcomes (see Table 7.1).

In addition to the strategic changes that must be made and implemented to improve the first-year experience at UB, it is clear that much more sustained institutional research is necessary to identify the causes of issues, problems and gaps so that properly informed actions and interventions can be implemented. From a broader continental perspective, not all African universities have this capacity, but they need to develop it if they are to understand their own unique challenges with regard to how students persist through their institutions and leave with meaningful and valued experiences.

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CHAPTER 8

STUDENT AND STAFF PORTALS AS SUPPORT CHANNELS FOR THE FIRST-YEAR ACADEMY

ANTOINETTE VAN DER MERWE
RALPH PINA

Introduction

Using technology to support student learning is well accepted, but using technology to support systemic initiatives is a less well-known approach. This paper discusses some of the issues that should be taken into account when designing portals and shares some of the innovative approaches adopted at Stellenbosch University (SU) in order to support the First-year Academy (FYA) initiative.

In 2002, SU initiated the Portal Project, an ambitious drive to develop and establish web portals as key infrastructure and tools for campus communities. Since then, three web portals have been developed and rolled out; namely, a student portal (www.mymaties.com), an alumni portal (www.matiesalumni.net) and a staff portal (my.sun.ac.za). The FYA is an academic initiative focused on the success of all first-year students and was officially launched at the beginning of 2007. One of the specific aims identified by the coordinating committee of this initiative was to investigate the use of portals as communication channels to students, lecturers and parents or the persons responsible for the specific first-year student's account. Timeous and targeted communication with these stakeholder groups on the progress of this group of students is of utmost importance to enhance the students' chances to achieve success. The coordinating committee felt that the portals, as 'user-centric' communication channels, would be ideally suited to fulfil this role (First-year Academy Coordinating Committee, 2006:10).

This chapter will firstly provide some background as to how Stellenbosch University identifies a portal. It will then show how the portals specifically add value to the FYA initiative. The chapter will also show how the portals strive to provide student-

centric and staff-centric places of work, integrating many useful functions, services and information feeds into a common interface. We will share useful lessons learnt, as well as what we consider to be critical success factors for institutional portals. Finally, we will provide a glimpse of future plans.

Background

> ... portal initiatives, by definition require across-the-institution agreements on approach and design that are hard to achieve in loosely coupled organisations like academic institutions. (Katz, 2002)

The Portal Project at SU was one of the key projects in the University's broader six-year e-Campus Initiative (2002-2007). This was an organised and coordinated effort, not only to further the integration of information and communications technology (ICT) into all the University's activities, but to create a 'networked' university.

The management of the Portal Project was a cross-institutional management process which was quite complex due to the different divisions involved in the deployment of the portals. A high-level steering committee governed the project and a mid-level executive committee managed the sub-projects. Each portal was defined as a sub-project in its own right with its own owner, project manager and project team. Since the formal development phases of the project have terminated, a cross-institutional project committee now coordinates their governance, refinement and further deployment. ICT consultants, Gartner, in reviewing the success and failure of enterprise/institutional portal projects globally, confirms that sound portal governance is the most critical success factor (Phifer, 2008).

SU defines a portal with respect to its scope and audience. The scope could be, for example, an enterprise, an institution, the government, an industry group, an interest group or a community. With regard to audience, it could be, for example, the institution's employees, alumni, students, partners or prospects.

According to a Gartner research report, a portal can be defined as: 'Access to and interaction with relevant information, applications and business processes by select, targeted audiences in a highly personalised manner' (Bell, Chin, Drakos, Driver, Gilbert, Gootzit, Knox, Lundy, Natis, Phifer, Shegda & Valdes, 2006).

Portals are defined in terms of audiences. We contend that it makes no sense to refer to a portals as a 'Library portal', or a 'Faculty of Engineering portal', or an 'HR portal'. These constructs merely perpetuate the traditional website approach where the site mirrors the organisational structure. Our portals must be user-centric; they must bring services, applications and information to the user that are relevant to the user both in time and in context, and this use must be evident to the users.

Consequently, we have defined and introduced the following institutional web portals – each with its own goals, ownership, appearance and branding:

1. *Student portal* (www.mymaties.com): This portal contributes to a student-centred campus and e-learning experience, and creates a single point for personalised academic campus life and social information and services.

2. *Alumni portal* (www.matiesalumni.net): This portal facilitates the management of alumni relationships by the Alumni Office and helps to create a virtual community of alumni around their affinity to SU, thereby encouraging support, both intellectually and financially, for the University.
3. *Staff portal* (my.sun.ac.za): This portal creates a secure, personalised environment (intranet) for staff to access management information, academic processes, applications and documents, irrespective of time and place. It is aimed at supporting and simplifying a staff member's daily tasks.

Tentatively introduced during mid-2004, the mymaties.com student portal experienced initial load and performance problems but has been fully operational since January 2006. It is now an essential service for students and the number of applications and services deployed through the portal is increasing regularly. The portal framework is accepted as the official user interface for deploying applications and services targeted at students. It is a continuing challenge to ensure that the portal infrastructure can meet the load demands placed upon it.

The staff portal, my.sun.ac.za, started an incremental, 'soft' rollout midway through the second quarter of 2006. During interactive sessions, in which the portal was introduced to faculty members as a prototype, it became clear that building the portal 'around the user' made intuitive sense to them and was indeed welcomed.

Bringing the university to the user: Services via the portal focused on the First-year Academy initiative

As mentioned in the introduction, SU made a strategic decision to plan a FYA initiative at the beginning of 2006 to improve the success rates of all first-year students. The focus is not only on the students who are struggling. The initiative is also aimed at effectively supporting all students to reach their full potential. It is further important to note that although the success rates of the students are vital, the initiative focuses on quality student learning and not only on student throughput.

The student and staff portals can be effectively used as user-centric communication channels to:

- aid in the recruitment of students with potential to succeed;
- implement the model to predict student success; and
- implement the early assessment system with feedback to both students and lecturers.

Many of the first-year students only realise after the first exam at the end of the first semester (when it is already too late) that they are not coping. The ideal is that all first-year students receive timeous and relevant information on their progress in a customisable student portal environment (First-year Academy Coordinating Committee, 2006:9-10).

To provide these targeted personalised services, the portal should recognise a user as a first-year student and target that student with the assistance, information and services

that the FYA deems necessary. In order to do this, the Academy has defined who is deemed a 'first-year' and the necessary user auto-provisioning is under development so that the portal managers can ensure that a first-year student experiences a portal tailored to his or her needs.

Recruitment and career selection

The FYA Coordinating Committee identified the right career choice as one of the factors that could ensure the success of a first-year student. It is furthermore important that the University recruits students with potential and advises them in the best possible manner. Prior to the existence of the student portal, mymaties.com, the official website for current students was named maties.com. Its role was to prepare students for a less stodgy branding of their online environment in the institution, but it was still essentially a 'one size fits all' website that could not be customised or personalised.

With the advent of the portals, the concept of a 'campus pipeline' (Figure 8.1) was developed.

The website maties.com has become the recruitment website for SU. Prospective students obtain career advice here and are able to apply online. Upon successful application they move smoothly into the personalisable mymaties.com portal environment, but with the role of prospective student, so that relevant content and services are targeted at them. The portal environment requires them to log on so that their identity and role are known to the system.

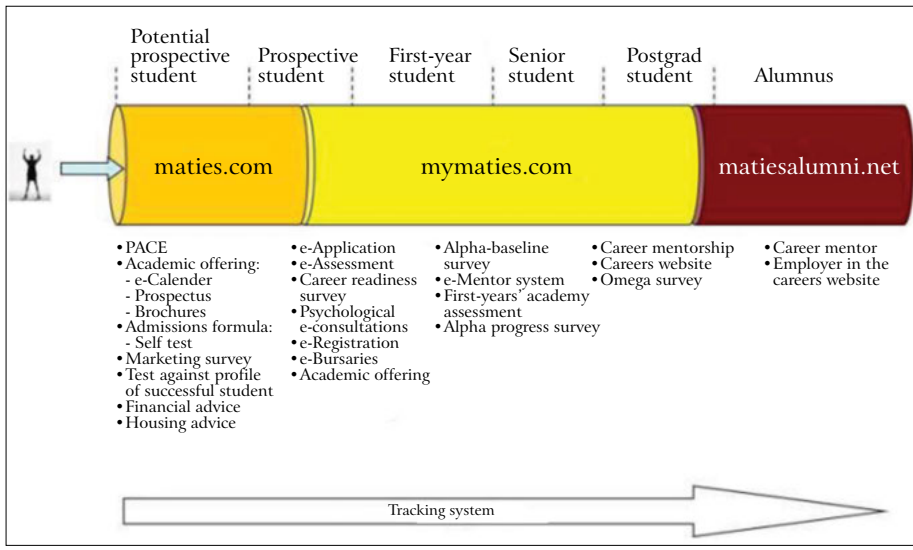

Figure 8.1 The 'campus pipeline' model

Prediction models for academic success

One of the working groups of the FYA Coordinating Committee was tasked to look at the different variables one could include as part of a model to predict academic success. The university gathers a significant amount of data about first-year students even before they write their first test. The challenge remains to effectively integrate all of these data sources into a model to predict student success. These data sources include:

- school marks and access tests marks;
- qualitative data from the Alpha Baseline Questionnaire that all first-year students complete within their first week at university. This questionnaire is based on various self-reporting questions that include, for example, students' perceptions of how they rate their chance of academic, emotional and social wellness; and
- biographical data, including information such as school attended and their gender.

One of the issues raised in preliminary discussions was whether to display the results of this model to the students at all. Some feel that if it is clear from a specific student's profile generated by the model that the student has a very poor chance of success, the student will immediately give up. Conversely, the 'bad' profile could inspire a student to work very hard to defy the odds and to achieve success. Similarly, a student with a 'good' profile might think that he/she does not need to study. No final decisions have been reached in this regard, and whereas it might be technically easy to display each first year student's profile within the student portal, the advantages and disadvantages will have to be weighed up very carefully.

This prediction model can also be used to predict what the chances of a student with a specific profile are of achieving success in a specific course, by taking the performance of other students with similar profiles into account. Again, as we have discussed, this could be quite problematic to display within the portal environment. Although the student's profile will only be visible to him/herself, it could act to demotivate rather than to motivate.

Similarly, if these student profiles were displayed to lecturers, serious questions would have to be asked as to whether the data from the Alpha baseline questionnaire should be included. The main purpose of this questionnaire is to identify the specific needs of individual students in order to refer them to the appropriate support services. This data could be very personal in nature and students might not want their lecturers to have access to this type of information.

Early assessment, tracking systems and feedback

The earlier that we identify first-year students who are struggling, the better their chances of getting timeous feedback and assistance, which could greatly improve their chances of success. The focus at SU is, therefore, to design an early assessment system with the appropriate feedback channels to students, lecturers, relevant committees that look at first-year success, and even parents or the person(s) responsible for paying the student accounts.

One of the most successful initiatives of the FYA is the FYA Monitoring System, which was launched in 2007. According to this initiative, a mark for every module of every first-year student needs to be loaded in the Student Information System (SIS). These are loaded after the first six weeks (early assessment) and after the exams. This type of early assessment helps to identify those students who are struggling. (For more detail on the initiative, see Van Schalkwyk, in press). The real challenge was to design an information system that would display the results so that it would provide:

- the students with their results (student view);
- the lecturers and academic support personnel with a picture of a specific student's overall progress (lecturer view); and
- academic management (for example, deans and programme coordinators) with summative information on programme and comparative data (management view).

The staff portal delivers a perspective of a student's academic performance or perhaps a profile of a problematic subject module to a lecturer or an academic support professional. The student portal gives a student a different but relevant perspective of his or her own performance or an indication of the type of challenge a particular module will present. In short, the idea is that the respective portals deliver an individualised perspective of the information contained in or produced by a tracking system to their respective audiences. The objective is that both students and staff will be placed in positions of being able to take action or intervene timeously.

Student view

A very popular function amongst students is the marks portlet (including early assessment and examination results), which consumes a live feed from the SIS. As soon as early assessment and examination marks are uploaded to the SIS, they are available to students within mymaties.com. There are no delays because of manual interventions. With time it is envisaged that test marks will also be delivered through a similar portlet. The marks function does, however, cause major peak loads on the portal infrastructure and the 'pushing' of information to mobile devices is being considered to mitigate the effect.

It must be emphasised, however, that notification of achievement alone is not enough. Feedback to students accompanied by relevant assistance is of vital importance. Here, the student portal can be a very powerful tool to not only 'push' information to the student on his/her progress, but to also recommend what types of assistance are available and, if possible and applicable, track whether the particular student actually made use of the assistance provided.

Lecturer and academic support personnel view

If lecturers could also have access to the complete academic profiles of the students in their modules (obviously not confidential data, such as whether a student visited the Student Counselling Services), they would get a better idea of which students are not

only struggling in their module, but also perhaps in their whole academic programme. In this regard, the staff portal provides a very important communication channel.

Figure 8.2 shows the information student portlet. This portlet delivers an individual student's profile from the central SIS and allows a staff member, with the necessary access rights, to query biographic and academic information about a particular student. The portlet is the vehicle through which additional, relevant information about students is delivered to authorised staff; it gives a view of the 'whole' student. A collection of similar portlets will combine and integrate information from various systems into a single and coherent user interface.

The lecturers have both a module and programme context view of early assessment results. Although lecturers have a good idea how specific students are performing in their individual modules, it is often difficult to ascertain how a specific student is performing in his/her programme. The programme view places a student's performance into programme context and also supplies useful information regarding the student's Grade 12 and access test marks.

It is notable that this view also indicates to the lecturer what percentage of the modules within a specific programme the student has passed. It automatically groups the students in increments according to the categories – 0% passed to 100% passed – and also colour codes the respective categories from red to green. A lecturer, therefore, has a visual overview of the students who might be experiencing difficulty in all their modules, and the lecturer can then, in collaboration with other lecturers, plan an appropriate intervention.

Academic management view

It is also useful to provide the early assessment data to relevant committees within faculties to enable them to suggest and recommend interventions at faculty level if appropriate. From a management perspective, deans also require information at a more aggregated level to compare programmes and specific modules within faculty context as well as to benchmark their faculties against other faculties. The academic management view of the early assessment results, therefore, includes additional spreadsheets and graphs that display summaries per programme, per faculty and per module. The portal also provides a list of modules where the pass rate is below 65%.

The portal as student-centric and staff-centric spaces

A degree of user-centricity has been demonstrated in the previous sections. The screenshots of the student and staff portals, shown in Figures 8.3 and 8.4, demonstrate how menu structures are designed around an individual's information needs, for example, in the case of students: My Profile, My Studies and My Finances. In addition, these menu structures are designed around sets of tasks that users typically perform, for example, in the case of lecturers: Manage (my) Modules and Manage (my) Students. In the latter case the horizontal top menu is organised around the core functions of academic staff, namely, teaching and learning, research, community interaction and management (for academic managers).

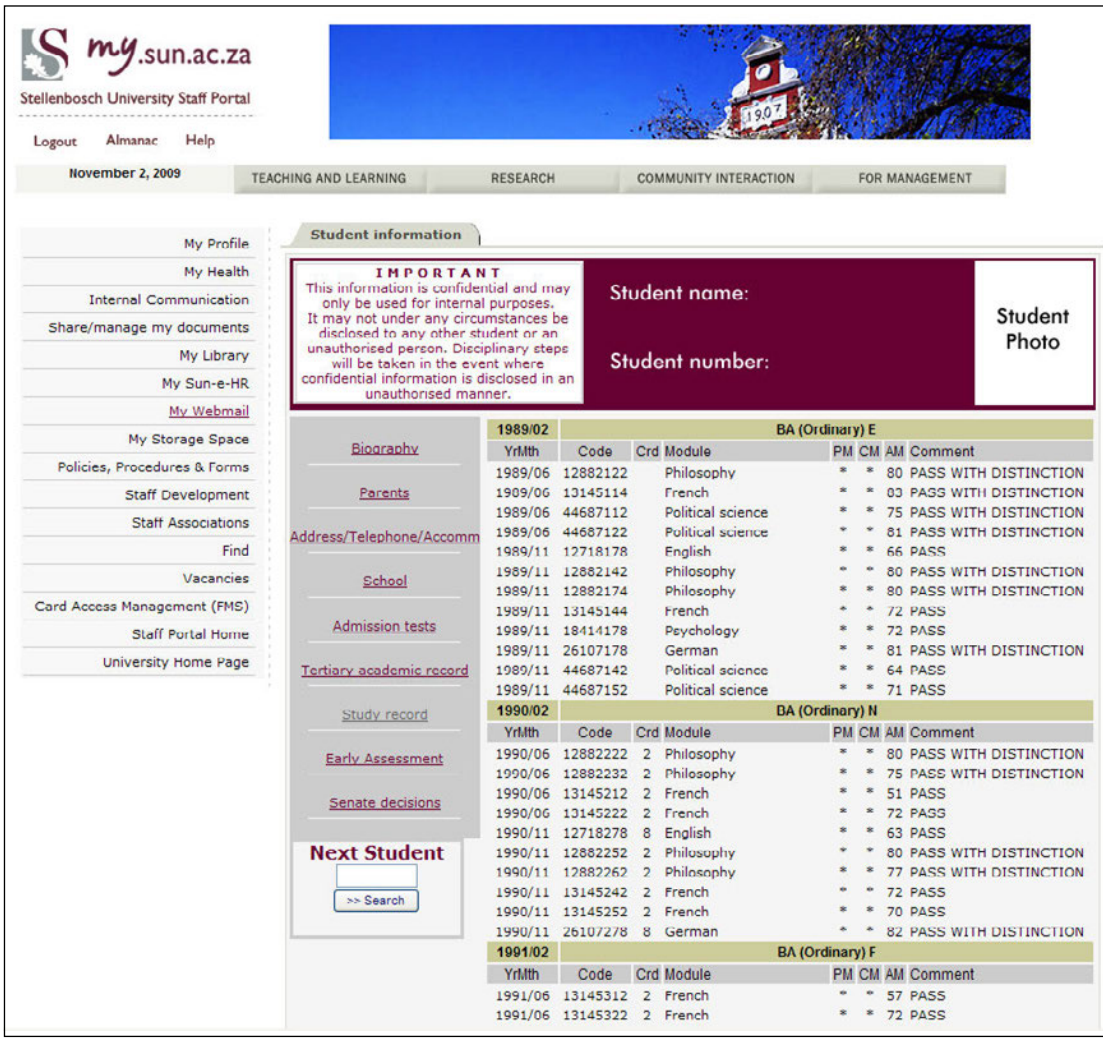

Figure 8.2 The student information portlet

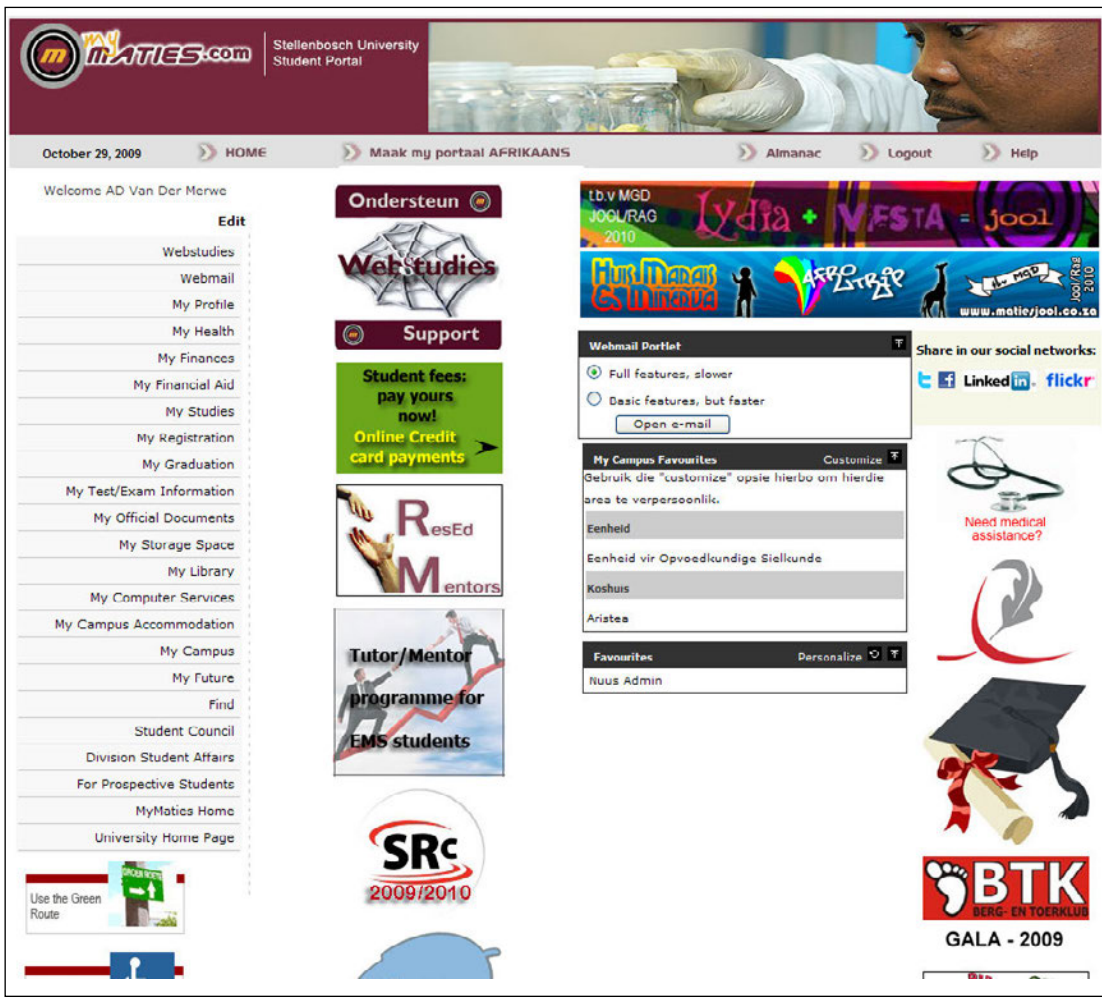

Figure 8.3 **Student portal, *mymaties.com*, menu structure**

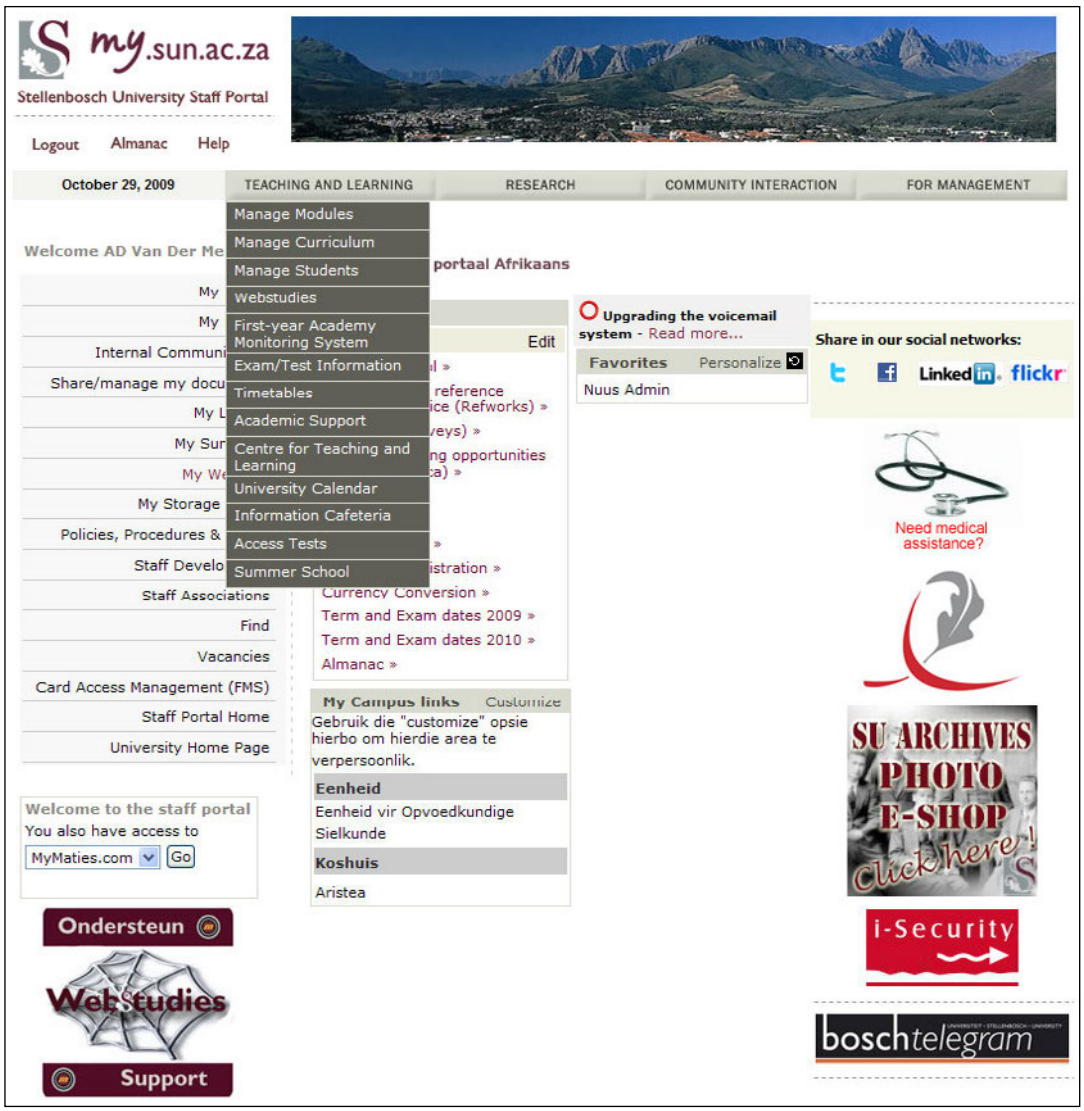

Figure 8.4 Staff portal, *my.sun.ac.za*, menu structure

As more information about the user is automatically provisioned to the portals, information and services will become more targeted and relevant with the result that one individual's portal will be different to any other's. Some of this functionality is already in production, such as the 'Announcements' portlet, which targets important announcements at specific groups of users and thus represents an additional, official communications channel.

Building an ecosystem of users

Creating these portals has not been a process whereby the Portal Committee and the designers unilaterally foist their designs on an unsuspecting campus community, but involved interaction with user focus groups to ascertain needs and expectations, and to recruit testers of prototypes. Certain campuses that are located far from the main university campus have unique requirements and specific needs-gathering exercises were undertaken.

The 'ecosystem' takes into account that there are authors as well as service and information providers on campus. One of the stated goals of the Portal Committee is to ensure that faculties, departments and divisions internalise the portals as tools and vehicles for delivering services and information to, and interacting with, their user communities. Implicit in this goal is the elimination of 'webmaster bottleneck', meaning that ordinary people are able to create and deploy information services without the necessity for skilled intervention by a webmaster. Clearly, this drive is a far more ambitious undertaking and would have more chance of being rapidly successful were more resources available to 'evangelise', inform and train. Unfortunately, universities are seldom able to enjoy such luxuries.

Lessons learnt and critical success factors

Identity management is a key infrastructure required for user-centric systems such as portals. This requirement includes:

- effective provisioning and de-provisioning of users to and from systems;
- web 'single sign-on' (SSO) at least;
- easily manageable authorisation of users to access content to which they have rights; and
- integration to access control models embedded in institutional systems, such as human resources and financial systems.

Without these requirements, the necessities for user-centricity, such as personalisation, customisation, 'pushing' and targeting, are still-born.

It is vital to know how the portals are used so that we can understand their relevance to the daily tasks of students and staff. Metrics that reveal usage and behaviour are essential, but require enormous storage and analytical resources.

Ownership and internalisation of the portals as communications channels and tools by divisions, such as Academic Administration and Academic Support, are essential

to the successful support of academic initiatives. The Portal Committee invested substantial time and effort in multi-disciplinary workgroups and project teams in order to facilitate this – and were largely successful. An important prerequisite is ownership of the Portal Project at Vice-Rector or Deputy Principal level, and this was achieved during the initial structuring of the project steering and management structure.

'Users don't know what they want'! At face value this is a contentious statement, but it refers to the fact that until one can show a user a prototype of an abstract concept, he or she will find it difficult to visualise it. It is only when people can comment on a prototype that they are able to give meaningful feedback. Until portals become mainstream, they remain abstract concepts and prototyping is thus essential.

Establishing a functional portal infrastructure is unfortunately a major, monolithic project. But once it is established, new developments and deployments of portal applications should be small, incremental 'quick wins'. In brief, it requires an 'agile' development methodology, as it is virtually guaranteed that users' needs will change between conception and deployment. An agile methodology makes innovation possible and also creates a 'buzz'.

Effective portals run the real risk of rapidly becoming victims of their own success in that they become indispensable. Usage, and consequently load on the infrastructure, increases exponentially. Declining and sometimes disastrous performance is easily the result and can mean that a 'slow' label clings to the system even once the problems have been solved. SU has only recently been partially successful in establishing effective end-to-end performance monitoring on the infrastructure, but adequate and predictive load simulation has been elusive. We see the following as being the critical success factors for the infrastructure:

- load simulation and ongoing performance monitoring that enables one to scale the infrastructure before users experience degraded performance;
- a redundant architecture so that the portal is not a single point of failure; and
- an architecture that scales relatively cheaply and easily.

It is our perception that the reason why most South African universities have as yet not launched portals is because a portal implementation is a complex and difficult project and requires intensive collaboration from divisions and faculties (besides the IT division), senior management sponsorship, a multi-disciplinary governance structure and development and integration capability within the IT division as mentioned earlier in the chapter.

Future plans

We envisage that in the near future, prospective and current students will be able to complete online questionnaires that will give them feedback about their fit with the profile of a successful student and which will propose courses of action to respond to a suggested lack of fit. Prospective students will be able to complete online career readiness questionnaires that will help the Centre for Prospective Students to advise

them better and feed into the admissions model. All students, including first-year students, will schedule and book consultations, whether these take place offline or online, with counsellors and psychologists online. In some cases, students will engage counsellors and psychologists directly using communications technologies such as instant messaging (chat) and web-chat-voice interaction. The proposed client service centre, which will feature state-of-the-art contact centre technology, will play a major role in routing and escalating calls and messages, whether they be synchronous or asynchronous, voice, e-mail, sms, chat or fax, workstation-based or mobile-based. A clear implication is that certain portal feeds and information will also be available from the students' device of choice, the cellphone.

With of all of these future plans, it is clear that SU is convinced of the potential of portals as support channels and enablers of academic initiatives and is striving to realise this potential. However, the advent of Web 2.0 and social networking, such as the Facebook phenomenon, implies that the notion of an institutional portal, provided and controlled by the institution, is being questioned. In fact, it could be argued that the institution has already lost control of the communication channel and that the portal has been usurped by Facebook, iGoogle, MySpace, and the like. These 'personal start pages' are the forerunners of the truly personal portal, MyPortal. Furthermore, MyPortal will be an aggregation of feeds from other portals, websites and services, including the institutional portal and will be accessed from various devices including mobile devices (Gootzit, 2007). An obvious implication is that in order to 'bring the university to the user', the institution should deliver its services and information in the digital environment that is preferred by the user. Currently, such a preferred environment for students would surely be Facebook. The question that then arises is: Would students welcome – or tolerate – intrusion of their social world by the academic world? So the question remains: How will the utilisation of portals to support institutional initiatives such as the FYA provide for the user's preferences? Collaboration with all stakeholders within the university with regards to the services as well as the environment where it will be provided via the portals, therefore, remains a critical success factor in using portals to support institutional initiatives.

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CHAPTER 9

A 3-TIER MODEL FOR SUPPORTING READING-TO-LEARN

CARISMA NEL
CHARL NEL

Introduction

Increased participation in the higher education sector in South Africa brings with it challenges regarding access to, and success in, the higher education sector. These questions of access become really important when it is realised that many students now seeking participation in the sector do not necessarily come from backgrounds that have adequately prepared them for this participation (Nist & Simpson, 2000; Scott, Yeld & Hendry, 2007; Yeld, 2008). According to Tinto (2008), success for these students will not be achieved by practice as usual, nor by add-ons that do little to change the experience of these students at university. What is required is a more serious and substantial restructuring of the student experience, especially for the many students who enter university academically underprepared.

Du Boulay (1999:1) states that

> One of the biggest problems in higher education, but one which is often not fully recognised by either students or lecturers until some way into academic courses, is the problem of reading, perhaps because reading in itself is not assessed. However, the results or output from reading are assessed.

Reading is not simply an additional tool that students need at university; it constitutes the very process whereby learning occurs (Rose & Hart, 2008). According to a report compiled by the Intersegmental Committee of the Academic Senates (2002:4), 83% of faculty stated that the lack of analytical reading skills contributes to students' lack of success in a course.

Research within the higher education sector in South Africa confirms the poor reading levels of students. Webb (1999) reported that many of the students at the University of Pretoria who were tested had reading levels of Grade 7-8 students. Similarly,

Pretorius (2000) found that many first-year Psychology and Sociology students at Unisa were reading at frustration level (i.e. well below their assumed reading level, with an average comprehension level of 53%). A study conducted by Nel, Dreyer and Klopper (2004) at the North-West University (Potchefstroom Campus) indicated that first-year students participating in their study experienced problems across all aspects of the reading components assessed, namely vocabulary, fluency, reading comprehension and reading strategy use. Similarly, research conducted by Zulu (2006) at the North-West University (Mafikeng Campus) indicated that first-year students lacked critical and analytical reading skills. Case study research conducted by Pretorius (2005:798) indicated that students approach reading tasks in a 'mechanical and passive way, starting at the beginning and wading their way through conceptually dense text to arrive exhausted, demotivated and largely uninformed at the other end'. In addition, students had difficulty making predictions and elaborating ideas across paragraph boundaries and integrating information across the text.

In the crucial area of academic reading there is often only fragmented and limited provision of support at tertiary level (Rose, 2005; Wingate, 2007). Regardless of student needs, most universities provide bolt-on generic skills courses offered by academic support units, language departments/schools, or study skills centres (Wingate, 2007). Research indicates that generic skills courses are not effective and students tend to avoid them because they regard them as irrelevant to their disciplines (Maxwell, 1997). Academic reading is a complex skill that requires an understanding of the nature of knowledge in the specific discipline (Alexander, 2005; Lea & Street, 1998; Northedge, 2003). Reading-to-learn at university requires a systematic and comprehensive approach to supporting students. Institutions should not leave reading development to chance (Pretorius, 2002). Structures need to be put in place to ensure the consistent and gradual development of academic reading skills for all students.

The purpose of this chapter is to present a 3-Tier model for academic reading skills support at university. The aim of the model is preventative and seeks to facilitate success for all students. In addition, the model addresses government requirements of quality student outcomes and timely completion and throughput rates (Scott *et al.*, 2007). Each tier of the model focuses on core curriculum content, engaged reading-to-learn curricula, teaching staff, resources, instructional methods/strategies, support, assessment and partnerships.

University academic reading demands

The primary skill that students need for university study is learning independently from academic reading (Rose & Hart, 2008). To study independently, university students must be able to read complex academic texts strategically with a high level of understanding and be able to critically analyse such texts in order to present coherent analyses, argument or discussion in their own written work (Rose, Lui-Chivizhe, McKnight & Smith, 2003). Simpson and Nist (2000) reported that 85% of college learning requires careful reading. Extensive reading is also needed, as students must

often understand 200-250 pages per week to meet sophisticated reading tasks in writing assignments and research papers, and in preparing for tests at university (Burrell, Tao, Simpson & Mendez-Berrueta, 1997; Nist & Diehl, 1994). University reading can be a daunting task (Taraban, Rynearson & Kerr, 2000). Not only must students read successfully and extensively, but they must also monitor their success and change strategies to meet varying learning and task demands. Students must also attribute success to their strategic approaches to reading rather than to chance or external factors (Caverly, 2001; Simpson & Nist, 2002).

Academic reading – reading for in-depth comprehension and learning – is a special type of reading. It is different than reading for enjoyment or reading for general information, and demands a different type of processing (in terms of focusing of attention, information encoding and retrieval). Reading-to-learn is often associated with 'the requirement to perform identifiable cognitive and/or procedural tasks ... [to meet] the criteria on tasks such as taking a test, writing a paper, giving a speech and conducting an experiment' (Anderson & Armbruster, 1984:657). Effective academic reading involves several kinds of metacognitive knowledge:

- knowledge of the criterion task (such as a multiple-choice test, essay exam, speech, or research paper) and what needs to be studied (task awareness);
- knowledge of how best to process the text for learning, including what to focus attention on, how to subsequently encode the information attended to and how to retrieve the information required by the criterion task (strategy awareness); and
- self-knowledge about whether and to what extent one has learned the material (performance awareness) (Anderson & Armbruster, 1984; Wade & Reynolds, 1989).

Academic texts present difficulties for inexperienced/underprepared students in two ways. First, the subject matter, including terms used in the academic field, is likely to be new and very unfamiliar, so even if students can read a text fluently, they cannot necessarily begin to understand, let alone interpret or critique, the ideas expressed in it (Pretorius, 2005; Shih, 1992). Second, since the patterns of language in academic writing differ from the patterns of language in everyday speaking or writing, reading academic texts can be such a struggle that understanding becomes extremely difficult, if not impossible (Rose *et al.*, 2003).

In order to comprehend a text, narrative or expository, students must be able to recognise at least 90-95% of the words and know what they mean. They must also be able to read the text with some degree of fluency using appropriate speed, phrasing, prosody and intonation, so that they can channel enough cognitive resources for building a 'situation model,' or mental representation, that the sentences in the text as a whole project (Kintsch, 2004). Within expository text material, two major factors are present which potentially affect students' understanding: ordination and relationships. Firstly, most expository material is organised hierarchically (i.e. topics, main ideas, and details) into super-ordinate, co-ordinate, and sub-ordinate ideas (Meyer, 1975). Secondly, Meyer identified five general patterns of text structure present in expository material, namely, collection or categorisation, comparison/

contrast, cause/effect, description, and problem/solution. Research indicates that students have difficulty:

- discerning important from unimportant information;
- selecting, organising and interpreting across multiple texts;
- recognising text structures and inferring main ideas when they are implicit;
- accessing a repertoire of effective reading strategies;
- managing executive control over underlying cognitive, metacognitive and affective processes that are the foundation of these strategies;
- believing in their ability to control their success; and
- being motivated to read actively (Alexander & Murphy, 1999; Cabral, 2008; Caverly, 1997; Simpson & Nist, 1997).

Students at university need to comprehend text by actively constructing meaning, and by integrating information from the text with relevant information from their background knowledge (Caverly, 2001). Conceptual knowledge (content schemata), text-structure knowledge, and knowledge about text-processing strategies are the foundation for successful construction of meaning (Shih, 1992). In addition, reading is as much a strategic process as a comprehending process, and metacognitive knowledge of the reading process is as important to develop as declarative knowledge, conditional knowledge, procedural knowledge, and conative knowledge (Caverly, 2001).

In order to be successful at university, students need to develop understandings of how they should approach the above mentioned reading demands, how they should proceed while reading, and how they can tell whether they are proceeding effectively or not. According to Fox, Alexander and Dinsmore (2007:2), many undergraduates have fragile understandings of reading. Their success in reading rests upon shaky foundations, due to a passive approach to reading, an over-reliance on background knowledge or personal experience, or a lack of metacognitive flexibility.

Academic reading skills support within the higher education context

Reading at university requires a systematic and comprehensive approach to supporting students. Structures need to be put in place to ensure the consistent and gradual development of reading skills for all students. In addition, 'institutions should deliver support intrusively, by initiating contact with students and aggressively bringing support services to them, rather than by offering services passively and hoping that students will come and take advantage of them on their own accord' (Cuseo, 2003:8).

A review of the literature indicates the existence of a number of diverse approaches that have been proposed for reading skills provisioning within the higher education sector (Cottrell & Jones, 2003; Skillen & Mahony, 1997; Snow & Brinton, 1988). One of the most prevalent approaches, still in operation in many universities today, is the so-called stand-alone or bolt-on approach (Snow & Brinton, 1988; Wingate, 2006). Reading skills are taught generically, without reference to discipline-specific academic assignments (criterion tasks) or content. In academic discipline-specific classes,

students must not only comprehend texts, but over the long term, critically react to the content (for example, in class discussion some time after reading an assignment), recall main points and details when tested (perhaps several weeks after initial reading), and synthesise information from reading with other related information, such as from lectures, discussion, PowerPoint presentations and independent reading. This approach results in reading skills becoming divorced from discipline-specific content and knowledge.

Research indicates that the linked or adjunct approach to reading skills support is the most effective (Angelova & Riazantseva, 1999; Durkin & Main, 2002; Shih, 1992). This approach recognises that discipline content and academic skills development (academic reading) cannot be divorced (Cottrell, 2001; Shih, 1992; Wingate, 2006) and that both of these elements go hand-in-hand. Research into how students learn in higher education suggests that learning is very contextualised, that is, students need to see how reading skills relate to a domain, enabling them to transfer and connect the skills to the material being studied (Alexander, 2005; Caverly, 2001). This approach entails linking the content of core curriculum courses with an engaged 'adjunct' academic reading-to-learn course or module.

In research conducted by Durkin and Main (2002:25), it was found that greater learner demand existed for a 'discipline-based' approach to academic skills development and that this approach helped to clarify for learners the expectations of their tutors. Durkin and Main (2002) also claim that the high attendance at discipline-based academic skills courses is testimony to the fact that learners see the development of these skills as integral to their programme of study. This approach reinforces the role of faculty in instilling in their learners an understanding of how to read and learn in his or her domain. Reading materials and tasks should resemble materials and tasks students face in discipline-specific classes, thus encouraging students to build repertoires of task- and text-appropriate discourse processing strategies. The abiding factor to bear in mind when designing academic reading modules is to ensure that the reading skills being imparted are relevant to what learners are studying within their own discipline, to how their reading and learning will be assessed. The reading skills should also encourage a deep approach to learning (Biggs, 1999).

A 3-tier model for reading-to-learn

The 3-Tier model is designed to provide scientific research-based instruction and targeted interventions that lead to successful reading at university. The focus of the model should be seen as developmental and preventative and not as remedial. The rationale for a developmental focus is based on Alexander's (2005) lifespan orientation toward reading. This perspective looks at reading as 'a long-term developmental process,' at the end of which 'the proficient adult reader can read a variety of materials with ease and interest, can read for varying purposes, and can read with comprehension even when the material is neither easy to understand nor intrinsically interesting' (RAND Reading Study Group 2002:xiii).

The model's basic philosophy is based on the recognition that all students entering university need assistance in developing the necessary and appropriate reading skills for both the higher education academic context in general, and more importantly, the domain-specific context (Alexander, 2004). The model consists of three tiers or levels of instruction: Tier 1, Tier 2, and Tier 3 (see Figure 9.1). The authors have adapted the model for university purposes from Utah's 3-Tier model of reading instruction for schools (Utah State Office of Education, 2007). Student movement through the three tiers is a fluid process based on student assessment data and collaborative team decisions. Assessment is viewed as the process of collecting, reviewing and using information to make educational decisions about student learning (Kruidenier, 2002).

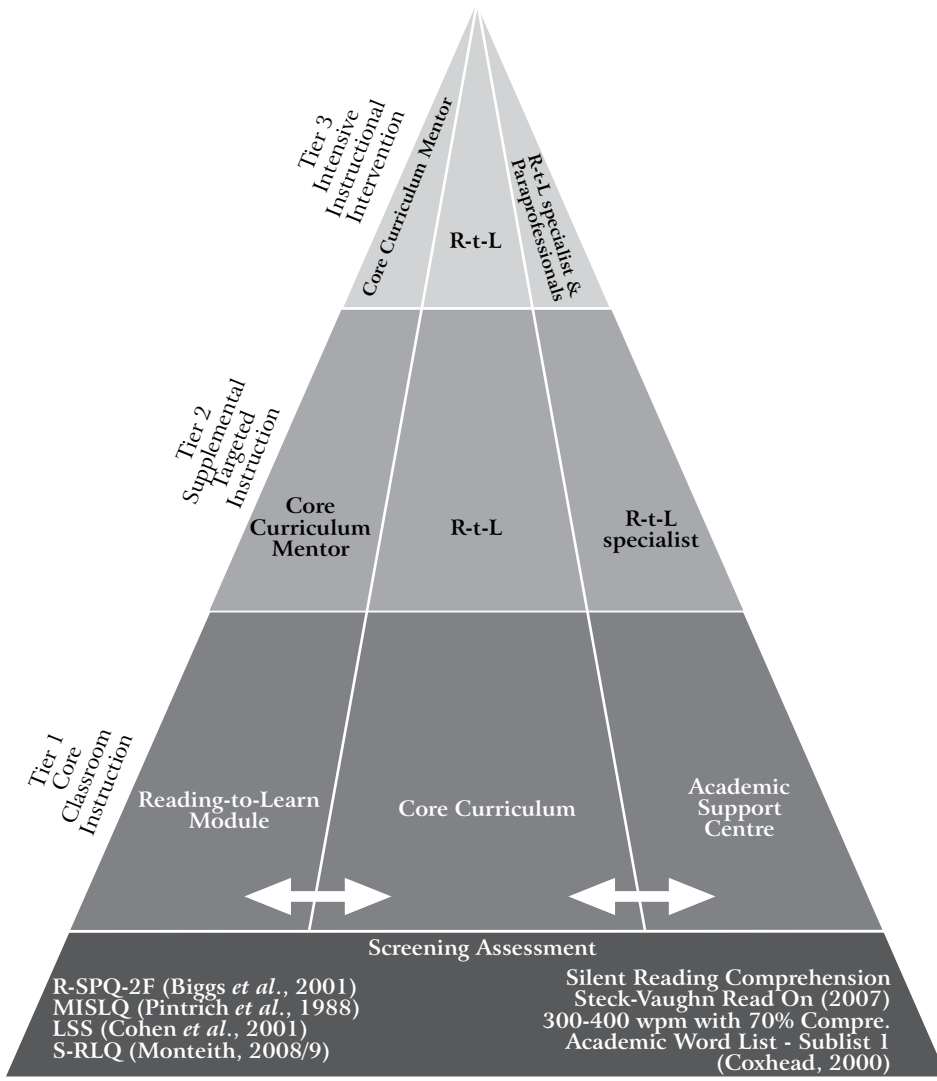

Figure 9.1 A 3-tier model for engaged reading-to-learn

The type of information collected is determined by the intended use of the results or type of decision that is needed.

Tier 1: Core classroom reading-to-learn instruction for all first-year students

Reading and learning screening assessments are administered to all first-year students during the induction period before classes officially start in order to identify those students most likely to experience reading and learning difficulties (see Figure 9.1). The information of tests of several reading and learning components is then used to create profiles of students' reading and learning ability (Chall, 1994; Strucker, 1997).

Profiles result in a comprehensive view of students' strengths and weaknesses across many aspects of the reading process and can be used to design instruction that addresses all aspects of the reading process during instruction. This ensures a balanced approach to reading instruction (National Institute of Child Health and Human Development [NICHD], 2000; Snow, Burns & Griffin, 1998; Snow & Strucker, 2000). According to Kruidenier (2002), assessing several components of reading in order to generate profiles of students' reading ability gives educators much more instructionally relevant information than any test of a single component can. In addition, the reading assessment profiles of first-year students may be so diverse that any one measure of reading achievement may not be sufficient to identify strengths, weaknesses and needs of instruction (Strucker, 1997). For example, lecturers often assume that their students have mastered basic reading skills, such as phonics, word recognition and fluency (Dietrich, 1994). However, many students have insufficient word recognition, limited phonics skills and laborious reading rates – three reading components that contribute to these students' comprehension difficulties (Bell & Perfetti, 1994; Martino & Hoffman, 2002; Sabatini, 1997).

The following tests and questionnaires are used to screen the students:

- Motivated Strategies for Learning Questionnaire (MSLQ): A self-report instrument designed to assess students' motivational orientations and their use of different learning strategies for a university course (Pintrich, Smith, Garcia & McKeachie, 1991).
- Revised 2F Study Process Questionnaire: Used to determine students' approaches to learning (Biggs, Kember & Leung, 2001).
- Learning Style Survey: Used to determine students' learning style preferences (Cohen, Oxford & Chi, 2001).
- Monteith's Self-Regulated Learning Questionnaire: Used to determine students' self-regulation abilities (Monteith, 2007/2008).
- Steck-Vaughn Read-On programme: Used to determine the rate at which students read (i.e. words per minute) and their reading comprehension ability (Harcourt Achieve, 2007).
- Coxhead's Academic Word List – Sublist 1: Used to determine students' vocabulary knowledge (Coxhead, 2000).

The results of the screening assessments should be communicated to the deans of all the faculties. At-risk students are identified, and in addition to Tier 1 instruction, Tier 2 instruction becomes compulsory for these students.

Tier 1 refers to core classroom reading-to-learn instruction for all first-year students. The reading-to-learn module is linked to the students' core curriculum, for example, B.Ed, (which is similar to an adjunct approach) and there is close cooperation between both of these components and the University Academic Support Centre. The staff responsible for implementing Tier-1 instruction include the core curriculum lecturers responsible for teaching the identified linked modules within the core curriculum (for example, B.Ed curriculum – Professional Studies EDCC 111), the reading specialist responsible for teaching the linked reading-to-learn module, and the academic literacy specialist in the Academic Support Centre. The reading-to-learn module focuses on scientifically based reading research (SBRR) to teach critical reading components relevant to adolescent and adult students as identified by Caverly (2001), Kruidenier (2002), the NICHD (2000), the RAND Reading Study Group (2002) and Rose *et al.* (2003). Components taught include strategic reading, fluency, reading comprehension, vocabulary, text and language structures within expository texts, and reading strategies. Instruction in the reading-to-learn module is direct and explicit. For example, the reading specialist specifically defines the strategy to be learned. The specialist then models the strategy and provides guided practice as students work independently or in small groups. Students are also provided with multiple opportunities to apply the strategies on their own. The reading specialist scaffolds support, which enables students to successfully practice complex strategies, and as they become more competent, scaffolding is gradually withdrawn. The content used in the reading-to-learn module is the prescribed material used by the core curriculum module lecturers in their courses. When students attend the reading-to-learn module they use the same material as in their core curriculum modules. Weekly meetings between the identified staff ensure collaboration and engagement. For example, projects and assignments required in the core curriculum modules are used as 'practice tasks' within the reading-to-learn module. In order to complete the assignments, students should be able to synthesise and integrate information from multiple sources with different structures. They should also use a variety of reading strategies and monitor for comprehension. These reading skills are then explicitly addressed in the reading-to-learn module. Assessment within the reading-to-learn module is also combined with the core curriculum module with the reading specialist assessing the academic reading skills and the content specialist assessing the domain-specific content.

Weekly planning meetings give colleagues the opportunity to discuss student progress and identify students who might require Tier-2 or Tier-3 interventions. These meetings also serve to identify what additional support or practice should be provided in and by the Academic Support Centre (for example, computer-assisted instruction – compulsory during Tier 1; the implementation of supplemental instruction – optional, peer study groups – optional). Assessment data is used to monitor and

inform instruction. Students not making adequate progress are identified and referred to the Academic Support Centre (literacy specialist) where they receive differentiated and scaffolded instruction delivered in flexible groupings, namely, whole group, small group, partner and individual study. Students are monitored twice weekly by means of progress and outcome assessments in order to identify at-risk students early in the semester. Deans, directors, lecturers within the core curriculum, students and their parents are regularly informed of students' progress (early-warning system). Three 45- to 50-minute reading-to-learn periods, including the compulsory computer-assisted instruction period in the academic support centre, are required per week.

Tier 2: Supplemental targeted instruction

Tier 2 provides supplemental targeted instruction in addition to Tier 1 and addresses the specific needs of students who do not make adequate reading progress in Tier 1. Students move to Tier 2 based on a collaborative team decision made by the core curriculum lecturer, the reading-to-learn lecturer and the literacy specialist within the Academic Support Centre. The results of various assessement data, such as progress and outcome assessments, are used in order to make an informed decision. In addition, diagnostic assessments are done via the Visagraph III system (Taylor, 2000) in order to identify possible reading efficiency problems. The following aspects are identified:

Fixations/100 words	90
Regressions/100 words	15
Directional attack %	17
Average span of recognition	1.11
Average duration of fixation	.24
Rate without rereading	280
Comprehension	70%

The values identified are relevant to first-year students. Tier-2 interventions should be targeted, scientifically based, and aligned with core curriculum instruction. Approximately 10-15% of students may require Tier-2 instruction. The duration of this instruction varies and is based on student assessment and progress monitoring data. The instruction is generally provided by the literacy specialist in the Academic Support Centre. Flexible and small homogeneous group instruction is provided. A minimum of one additional period is required for teaching at Tier 2.

Tier 2 refers to targeted Scientific-Based Reading Research (SBRR) supplemental instruction. This instruction is aimed at supporting students who fail to meet Tier 1 benchmarks in one or more critical areas of reading, which could include word-level decoding, fluency, vocabulary, comprehension, flexible strategy use, and such like. Students who have difficulties with domain-specific knowledge will receive assistance from a core curriculum mentor. Tier-2 instruction is systematic, explicit, and aligned with Tier-1 instruction. Instructional interventions are differentiated and based on the needs of individual students as determined by assessment data.

Tier 3: Intensive instructional intervention

Tier-3 intervention *replaces* Tier-2 instruction and is *in addition* **to** Tier 1. Tier 3 is designed to provide intensive, targeted intervention to the most at-risk readers – those who have not responded adequately to Tier-2 instruction. This small percentage of students usually have severe reading difficulties and require instruction that is more explicit, more intensive, and is specifically designed to meet individual needs in the areas of essential word analyis, word recognition, fluency, background knowledge, vocabulary, comprehension, and in extreme cases, phonemic awareness. Students are also required to work with the Reading Plus (Taylor, 2000) and Read On (Harcourt Achieve, 2007) software within the reading laboratory in the Academic Support Centre. This intervention is extended over a longer period, and diagnostic and weekly progress monitoring assessments are used extensively to identify problems, check progress, and provide appropriate, targeted interventions using SBRR materials. Instruction is provided by a reading or academic literacy specialist or by a paraprofessional. Flexible, small group (two to three students) or individual instruction is provided within Tier 3. A minimum of one additional period is required for instruction at this level. A core curriculum mentor provides support in terms of domain-specific knowledge.

Conclusion

The 3-Tier model for reading-to-learn (academic reading) discussed in this chapter emphasises the importance of reading within the higher education context and acknowledges that all students need support with this skill due to its developmental nature. Alexander (2005:2) states that, 'Until we adopt this lifelong perspective, we continue to run the risk of turning out undeveloped, unmotivated, and uncritical readers unable to fulfill their responsibilities within a democratic society.' The 3-Tier model to reading intervention instruction focuses on helping students succeed within the higher education context. Each tier provides a different level of support based on student need and is monitored through the use of students' outcomes or data.

The results of both quantitative and qualitative studies emphasise that our attempts to produce quality learning material and developing independent and self-regulated students are prone to failure unless we can improve the reading ability of our students. Pretorius (2005:810) states that there is a, 'pressing need for tertiary institutions to acknowledge the fact that many – if not most – of our L2 students have reading problems that do not go away if ignored, and to act on that admission of fact.'

To be serious about the success of all students, including the academically underprepared students, institutions should recognise that the roots of their attrition and/or failure lie not only in student backgrounds and the academic skills they bring to campus, but in the very character of the educational settings in which students are asked to learn, settings that are the product of past decisions already made that can be changed if we are serious in our desire to translate the promise access offers to students to real opportunity for success (see Scott *et al.*, 2007). Nowhere does such change matter more than during the critical first year when student success is so much in doubt. It is for that reason that there is much to be gained from a rethinking of the

character of reading courses and the development of coherent first-year programmes aimed at ensuring that all students receive the support they need to learn and persist beyond that year. As stated by Tinto (2008), 'Access without effective support is not opportunity.'

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SECTION THREE

CHAPTER 10

STUDENT PERCEPTIONS OF THE FACTORS INFLUENCING THEIR SUCCESS IN FIRST-YEAR ACCOUNTING

LEN STEENKAMP
ROELOF BAARD
LIEZEL FRICK

Introduction

> [T]he learner brings an accumulation of assumptions, motives, intentions, and previous knowledge that envelopes every teaching/learning situation and determines the course and quality of learning that may take place. (Biggs, 1996:348)

Biggs's understanding of the determining influences students may have on the teaching and learning environment is supported by a variety of authors in the field of Accounting education (Byrne & Flood, 2005; Duff, 2004; Duff, Boyle, Dunleavy & Ferguson, 2004; Lucas & Meyer, 2004; Ramburuth & Mladenovic, 2004). The changed and increasingly diversified student populations in higher education across the world (Cross, 2004; Drost, 2002; Lowe & Cook, 2003) amplify the need for Accounting lecturers to take note of their students' assumptions, motives, intentions, and previous knowledge that may influence student success (Byrne & Flood, 2005).

Various studies provide general information on students entering the higher education system (for example, Masitsa, 2004; Mji, 2002; Pillay, 2004; Toni & Oliver, 2004; Wößmann, 2003). A number of studies focus on Accounting students' approaches to learning (Byrne, Flood & Willis, 2004; Duff, 2004; Lucas & Meyer, 2004; Ramburuth & Mladenovic, 2004), while Hermanson, Deines, Eldridge, Hermanson, Ivancevich and Williams (1996) focus on the recruitment of first-year Accounting students in the USA. Du Plessis, Müller and Prinsloo (2005), Müller, Prinsloo and Du Plessis (2007), Rowlands (1988) and Van Rensburg, Penn and Haiden (1998), focus particularly on the first-year success of Accounting students at three different South African universities. The South African-based studies investigated the causal relationships between various indicators, notably students' prior school performance,

as possible predictors of future academic success. These studies did not consider the students' own perceptions of their chances of success at university. Gracia and Jenkins (2002:95) argue that '[i]t seems likely that there are more active and subjective forces at work in determining performance that are not captured by statistical studies'. Biggs' implied emphasis on possible student-centred factors that influence the teaching and learning environment therefore leaves room for further investigation in Accounting education in South Africa.

This study therefore aimed to investigate first-year students' perceptions of factors that influence their success in Financial Accounting at a South African university. Even though the intention of the reported results is not generalised beyond the scope of the study itself, the information may provide valuable information to first-year lecturers and the planners of foundation programmes.

Orientation to the study

Financial Accounting 188, with approximately 1,300 registered students annually, is a compulsory first-year subject for all Bachelor of Commerce (BComm) students at Stellenbosch University. Of these 1,300 students, approximately 40% to 50% have no background in Accounting in that they did not study Accounting as a subject at secondary school. The course content covered in the first semester of the module is similar to the content covered in Accounting at secondary school, although a more conceptual approach is followed at the University. This allows students the opportunity to follow a BComm degree without having studied Accounting as a subject at secondary school. The course is presented by five lecturers to groups of 200 to 300 students per class and the language of instruction in the module is predominantly Afrikaans, with some English used in the lectures. Although Stellenbosch University is an institution that promotes Afrikaans as an academic language, approximately 40% to 50% of these students indicate each year at registration that their home language is English. Additional learning support measures are provided for many of these students through tutorials, additional beginners' group classes and peer mentoring to assist those students with no Accounting background and those who may experience language difficulties.

The throughput rate for the subject has been below 70% for the past number of years, which is consistent with the throughput rate figures for a similar module provided by another South African university (Du Plessis *et al.*, 2005). Over time, the lecturers teaching in the module formed their own assumptions (based on personal observations, experience and conversations) on the reasons for the relatively low throughput. These assumptions are the following:

- Nearly half of the students studying the module have no (school-based) background in Accounting, and because the complete content of secondary school Accounting is covered in the first semester, students with no background in Accounting tend to struggle with the module, especially in the first semester.
- There is a lack of adequate preparation at school level in Accounting. Learners are taught how to do Accounting, but the principles of and reasons for Accounting

are not adequately addressed or assessed. First-year students with a background in Accounting might therefore have certain misconceptions about Accounting.

- There is limited provision for English tuition in the specific faculty and some English-speaking students may experience language difficulties.
- Class attendance by students is low, averaging 40% to 50% weekly.
- Students are poorly prepared for tests and exams.

The unsatisfactory success rate of first-year students in Financial Accounting prompted the relevant lecturers to consider the possible causes of student failure. An inter-disciplinary team investigated possible causes for the lack of first-year students' success in the particular module with the purpose of promoting learning and eventual student success. Killen and Fraser (2002) note possible differences in the perceptions of students and lecturers on what contributes to academic success. If these different perceptions of the factors that contribute to success or failure can be identified, it may be possible to enhance students' chances of success.

The research problem in the study was therefore formulated as: What are students' perceptions of factors that influence their success in Financial Accounting 188?

An exploratory interpretive study using a questionnaire was employed to investigate student perceptions of factors influencing their success in Financial Accounting 188. The study was conducted amongst the 2007 cohort of Financial Accounting 188 students in the second half of 2007. A response rate of 80.15% was achieved in response to a detailed questionnaire containing both quantitative and qualitative elements. The results provide valuable empirical insight into the attitudes and perceptions of first-year students in the particular module, with a focus on what students themselves perceive as factors that influence their success. This insight may facilitate a more learner-centred ethos through the development of student support systems and teaching practices based on an empirically founded notion of student needs. The results of the study are currently being used to implement changes in the Financial Accounting 188 module.

Methodology

The research aimed to give a descriptive analysis (Henning, Van Rensburg & Smit, 2004) of the perceptions of first-year students in Financial Accounting at Stellenbosch University. Students' perceptions of factors influencing their success in Financial Accounting 188 were empirically investigated by means of questionnaires containing quantitative and qualitative elements. Babbie and Mouton (2001) propose that it is appropriate to use questionnaires in a descriptive investigation. From the results of these questionnaires, certain interpretations could be made regarding the factors that students perceived to be influencing their success in this module.

A purposive sample was drawn for the questionnaire. The sample consisted of all students registered for the particular module, Financial Accounting 188, in the second semester of 2007. Questionnaires consisting of two sections were administered to these students at a formal assessment opportunity to ensure the best possible

response rate. The students were given the opportunity to complete the questionnaire before commencing with the test. A response rate of 80.15% (1,042 respondents) was obtained. Gay (1987) recommends a minimum sample size of 10% of the total target population for a descriptive study. The results of the study can therefore be generalised to the total target population of first-year students registered for the module in Financial Accounting at the particular university, but not beyond this parameter.

The research design and methodology used aimed to make the study replicable and therefore reliable. Bias was avoided by means of a well-planned purposive sampling strategy (students were asked to complete the questionnaire prior to a compulsory assessment opportunity) and the study of relevant and recent literature to guide the construction of the questionnaire. A questionnaire that was pilot tested and used within a previous unpublished study on first-year student perceptions served as a further basis for the questionnaire construction. These elements added to the validity of the measuring instrument.

A limitation of the study is that it focused mainly on students' own perceptions. This situation might not be a reflection of reality. We do acknowledge that student perceptions may be misleading and may furthermore not constitute all the factors that possibly influence student success. This study, however, focused on students' perceptions as a starting point to gain insight into the first-year academic experience in the particular context.

Results and discussion

Factors prohibiting success

Students were asked in open-ended questions what they perceived as hindering factors in their own performance in Financial Accounting 188, as well as possible reasons for their fellow students' lack of success in the module. The latter allowed for the possibility that students may have been more honest if they were given the chance to indicate why somebody else was not performing well.

One of the main reasons cited by respondents (N = 986) for their own lack of success was the absence of English classes (n = 206). The respondents also perceived a lack of English classes as playing a notable role (n = 161) in hampering other students' success, as indicated in the following respondent's comment: 'Some of the terminology is difficult to convert from Afrikaans to English'.

The researchers had expected that the absence of English classes might have played a role in students' success, and therefore two Likert-type questions were posed on this matter. The results are summarised in Table 10.1.

Table 10.1 Analysis of Likert scale responses to Afrikaans and English as teaching media

Percentage of respondents per Likert scale category Response category	Disagree strongly	Disagree	Agree	Agree strongly	Uncertain
Afrikaans as teaching language used in class prevents me from performing well in Fin Acc.	51.4%	9.1%	10.7%	26.1%	2.7%
English classes would help me to perform better in Fin Acc.	47.4%	4.4%	7.9%	37.9%	2.4%

More than a third (36.8%) of the students cited Afrikaans classes as an impediment to their success in Financial Accounting. Of these students, 15.8% gave Afrikaans as their home language (5.7% out of the total sample population). This seemingly incongruous finding might be explained by the fact that 56.8% of these respondents had completed their Grade 12 in either English or bilingual schools. Nearly half of the respondents (45.8%) thought that English classes would contribute to their success in the subject. These students were predominantly English first language students (69.4%), or Afrikaans first language students who had attended either English or bilingual schools (7.2%). These students may therefore have been more comfortable with English lectures.

Students (n = 225) also perceived a lack of time available for study as a perceived limiting factor to their success. Compared to the 225 respondents who cited lack of time as a factor determining their lack of success, only 16 respondents believed that other students had time management issues. In addition, 10% of respondents indicated that their colleagues had underestimated the module, compared to only 0.7% who confessed that they themselves had underestimated the module. Fazey (1993:236) found that modularised courses were well suited to students who could plan their time according to 'both extrinsically imposed demands and their own aspirations in relation to existing skill level'. The single most important factor noted for hindering their own success in the module, was a perceived lack of time. Students may perceive a lack of time as something outside their own control, and therefore a 'legitimate' excuse. The data from this study suggests that two possible aspects of time need to be taken into account in future studies: students' own time management capabilities, as well as time allocated to the module within the framework of the programme(s) of which it forms a part.

Students may use language, and even time allocated to a module and teaching effectiveness as 'convenient' extraneous excuses for poor performance, but the data suggested that the respondents were also able to be critical of themselves and arguably showed a remarkable level of honesty by their admitting that insufficient studying (n = 109) and laziness (n = 77) were the main factors hindering success:

> ... my work ethics ...
>
> I'm lazy, LAZY I tell you. Need to work more.

Only a small number (n = 23) ascribed poor performance to their poor class attendance. When students were asked why other students failed, more than two-thirds of the total response group for this question (N = 1,007) indicated that other students' lack of success was due to their own inactions, i.e. not studying enough (n = 354) and not attending class (n = 323). The respondents clearly seemed to be more critical of their colleagues, as only 109 and 23 respondents respectively cited these as main factors determining their own lack of success. These results confirm the findings of Duff *et al.* (2004) that conscientiousness has an influence on academic performance.

The main student-related factors cited as limiting success were a lack of motivation; lack of self-discipline, concentration and interest in the subject; not asking for help; not perceiving the subject to be important; having a mental block or negative attitude; and making unnecessary errors. Transport issues were also noted as a possible limiting factor.

In summary, the main factors – according to the respondents – leading to failure to perform well in Financial Accounting 188 were poor class attendance and insufficient studying (factors within students' control), a lack of English classes (outside their control) and a lack of time (which could be either under their control or not).

Factors promoting success

Students were asked which factors promoted their success, in contrast to the previous section. The main factors that respondents (N = 902) perceived to be helpful in their own success in Financial Accounting 188 were hard work (n = 269), practising the work (n = 261), and attending class (n = 140). Respondents attributed having had Accounting at school as a contributing factor in approximately a tenth (n = 100) of the responses. Self-motivation and innate ability were also deemed to be important factors contributing to respondents' success (n = 90). These perceived influences on success support the results put forth by Duff *et al.* (2004), who postulated an approach to learning as a determining factor in academic success.

Many students mentioned additional sources of help, such as attending tutorials (attendance is not compulsory) (n = 95), making use of mentors (n = 81), going to extra classes (n = 75), and asking peers for help (n = 36). The following responses attest to the perceived importance of individual commitment, as well as to the additional support systems implemented to help students:

> The extra classes are amazing; it helps a lot to do the work yourself.
>
> I think there is so much help so far already. Students just have to make use of it.
>
> I feel lecturers have done everything for us already.
>
> Studying hard, attending class and mentor and writing down what's done in class.
>
> I try to work at it myself and I attend all my lectures and I get help when I need it.

In all, 286 of the respondents indicated that additional outside help was beneficial to their Financial Accounting studies.

Class attendance

It was proposed at the initiation of the study that class attendance played a role in students' success. Evidence of poor class attendance was assumed to hinder success and attending class assumedly promoted success. With this in mind, two questions were asked on class attendance. Students were again asked which factors prevented them from attending class and, in a separate question, which factors prevented other students from attending class. The responses to these two open-ended questions are discussed in the remainder of this section.

The main reason cited for not attending class was that the respondents had to study for tests (n = 138). This might be indicative of poor time management by students. Related to this factor was the perceived heavy workload imposed by other subjects (n = 58), which could indicate that the other subjects were seen to be more important, or at least that they were more urgent. Virtually no respondents allowed for the possibility that other students might also have had to study for tests, but a small number allowed that the workload of other subjects might have played a role in their success (n = 15).

Respondents mentioned Afrikaans classes as a reason for not attending class since they did not understand Afrikaans (n = 130). The lack of English classes was also rated highly as a possible reason why other students may not have attended classes (n = 165), as the following response indicates:

> They don't understand Afrikaans, therefore just give up and many think they'll manage on their own. See lectures as a waste of time.

This finding corresponds to the earlier finding where respondents emphasised language as a perceived factor influencing their success.

A dislike of early morning classes (n = 89), tiredness (n = 85), the demands of student life (n = 28), and laziness (n = 80) were also commonly noted as reasons for non-attendance, which are all factors within students' own locus of control – as this response indicates:

> I struggle waking up in the morning in the winter due to the weather and little self-discipline.

Again, the respondents were more critical of their colleagues. Laziness was provided as a reason by approximately one-fifth (n = 200) of the respondents (N = 975). Interestingly, fewer students blamed morning classes (n = 30) as the reason for their fellow students' lack of attendance than for their own poor attendance (n = 89). Illness or other ad hoc events were cited by 59 students as reasons for own non-attendance.

A notable number of respondents felt that class attendance was not important (n = 33), that classes were 'boring' (n = 45), or that they understood the work and

therefore did not need to attend class (n = 37). A significant proportion of respondents' wrote that other students did not attend classes because these students thought they understood the work (n = 162), had Accounting at school and therefore did not need to attend classes (n = 157), or found the classes boring (n = 142) or not important (n = 65). Few students directly indicated in this open-ended question that previous school exposure to Accounting prevented them from attending class. This was borne out by the results in a Likert scale question where only 16% of the respondents (9% of the total) to the question replied that they felt they did not need to attend classes because they had taken Accounting at school. One could argue that students who had completed Accounting as a school subject may find classes 'boring' or unnecessary, but this is speculative in the case of the particular study. Bergin (1983) does, however, indicate that students who had Accounting as a school subject find that they do not need to study hard, especially during the first components of university Accounting modules, which may – in turn – result in poor study habits that are hard to break later on in the programme. Rowlands (1988) furthermore warns that these potentially good students may lose interest in Accounting as a result of this lack of intellectual stimulation at the onset of their studies and consequently be lost to the discipline afterwards.

Table 10.2 provides a comparison between the most prevalent reasons cited by the respondents for their own and other students' non-attendance.

Table 10.2 Reasons cited for lack of class attendance

Perceived factors preventing class attendance	Other students		Self	
	%	n	%	N
Reasons for lack of class attendance				
Have to study for tests	0.1%	1	16.3%	138
Do not understand Afrikaans	16.9%	165	15.3%	130
Early morning class – 8:00	3.1%	30	10.5%	89
Reasons for other students' lack of class attendance				
Lazy	20.5%	200	9.4%	80
Do not understand Afrikaans	16.9%	165	15.3%	130
Think they understand the work	16.6%	162	4.4%	37

Discussion and conclusion

This chapter has given consideration to the factors that students perceive as influencing their success in Financial Accounting 188 at Stellenbosch University, South Africa. This study was prompted by a traditionally relatively low throughput rate for the

subject. The research was conducted by means of a questionnaire distributed among students, in which a response rate in excess of 80% was achieved.

Based on past experience, lecturers assumed that the throughput rate was negatively influenced by a number of specific factors. These factors will now be considered in terms of students' own perceptions.

No background in Accounting

As Accounting at school is not a prerequisite for taking Financial Accounting, this was considered by lecturers to be a possible impediment to students' success. However, students did not believe that it played a significant role in their success, with only one-tenth of students indicating that it hindered other students' success and only half of that number believing that it influenced their own success negatively. It was the perception of approximately one-tenth of the respondents that Accounting as a school subject aided their success. Indirectly it might play a role, as approximately one-sixth of the respondents felt that students did not attend class as they had studied Accounting at school and it was therefore not necessary for them to attend class.

Limited English tuition

No Financial Accounting 188 classes are presented only in English at the University. Some use is made however in lectures, to attempt to accommodate English students. Lecturers were of the opinion that English students might struggle to understand the work, as subject specific terms were presented in a second or third language. Students concurred with this view, with a substantial number of the respondents indicating that a lack of English classes hindered their success.

Low class attendance

Traditional wisdom would have it that class attendance is important to being successful in Financial Accounting and students' failure to take notice of regular exhortations to attend class contributes to their eventual failure of the subject. Students seemed to realise this, as nearly a third of the respondents thought that other students' lack of success was at least partly due to poor class attendance. They, however, seemed to think that this played a limited role in hindering their own performance.

Lack of adequate preparation at school level

The Financial Accounting lecturers felt that students might receive inadequate preparation at school level, thereby not preparing them for the rigours of Financial Accounting at university level. Yet not one of students cited this as a possible reason for failure in the open-ended questions. This does not, however, serve as proof that it may not be a factor in student success. Students may not be in a position to assess their preparation for further study at school objectively.

Poor preparation for tests and examinations

The low throughput rate was at least partially ascribed by the lecturers to the fact that students did not prepare well enough for tests and examinations. Students seemed to agree with this perception, with one-third believing that other students did not study enough for Financial Accounting and nearly half of the respondents indicating that they themselves did not study enough for the subject. Hard work, regular practice and own effort were cited by more than two-thirds of the respondents as factors that aided their success.

Recommendations

A number of recommendations can be made to address the different factors that students perceive as affecting their performance negatively.

The language factor could be addressed by implementing English classes. However, this is an institutional issue which does not lie within the addressable ambit of the department itself. This problem could partially be addressed by the use of mentor groups where specific tutor groups have an English mentor who would understand the issues faced by these students.

In terms of poor class attendance, the only factors that could possibly be addressed by lecturers and/or the University would be the lack of English classes and, to a lesser degree, that students think they understand the work and therefore do not need to attend the classes. English classes may be implemented as a possible solution to the first problem. Regular assessment opportunities, for example, on a bi-weekly basis, might help students to realise that they do not understand the work as well as they might think (since this notion is contradicted by students' actual performance and consequently a low throughput rate). Such regular assessments would also be effective in motivating students to stay up to date and to study throughout for Financial Accounting.

It is also recommended that the findings from this study be shared with students at the start of the academic year. This might further motivate them to take the subject seriously and to attend classes, as these findings are based on the opinions of their peers and not just another lecturer prescribing what students should be doing. It can therefore be stated that students implicitly understand that their success in Financial Accounting 188 (at least partly) lies in their own hands and depends on their own efforts.

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CHAPTER 11

INTRODUCING LAW TO COMMERCE STUDENTS
A CASE STUDY

AVINASH GOVINDJEE

Scenario

Amir has matriculated with exemption and has been accepted to study a Bachelor of Commerce degree at the Nelson Mandela Metropolitan University (NMMU). He is particularly strong in mathematics and accounting and is looking forward to becoming a chartered accountant or economist. In between his set curriculum, Amir notices that there is at least one 'law' course he must pass in order to achieve his ambition. The course is entitled Commercial Law and requires proficiency in the following themes in order for credit to be awarded:

- background to law in South Africa;
- branches of law;
- general principles of contracts;
- contents of a contract, common contractual terms, forms of breach of contract and remedies for breach of contract;
- the passing, varying and ending of rights and duties by agreement and termination of contracts by law; and
- knowledge of three specific contracts, namely sale, lease and credit agreement.

Amir is concerned that he needs to gain credit in such a course since he has no intention of being a lawyer. He also wonders how the course will be presented considering that there are almost 700 students who must register for the course.

Similarly, Kavita, the law lecturer appointed to teach the module, has grave concerns about how to simplify law for such 'non-law' students without undermining the quality of the course being presented. She is also apprehensive about teaching to such a large class and wonders what techniques she can use for assistance.

This chapter deals with issues such as these by sharing the author's experience of teaching the subject using different techniques over a period of seven years. By using the formal feedback questionnaires prescribed by the faculty as an indicator of the

student experience and by considering the University's statistics *vis-à-vis* the pass rate for the course and the author's personal teaching experience, it is hoped that some indicators of good practice in this framework will be evident.

The chapter adopts a two-pronged approach and focuses on both students and lecturers by exploring the effects of such a scenario on each group separately. While students' needs are often the focus of research in the sphere of legal education (Goldring, Sampford & Simmonds, 1998:94-99), the approach of also considering the needs of lecturers is justified on the basis that a bridge ought to be built in order to accommodate the needs of both groups. This chapter seeks to begin the construction of such a bridge by firstly noting the challenges and opportunities presented by the Amir/Kavita scenario for both students and lecturers. Secondly, the chapter contextualises these challenges and opportunities against the backdrop of the governing framework, namely, the South African Institute of Chartered Accountants (SAICA)/Independent Regulatory Board for Auditors (IRBA) curriculum. Thirdly, the chapter discusses a 'fresh approach' that emphasises the use of an appropriate textbook, proper use of technology, and flexibility regarding the method of assessment adopted. The chapter concludes with some general remarks and recommendations.

Challenges and opportunities

It has been argued that higher education in the next decade will be marked by unprecedented turbulence and change (Johnstone, 1996:iii). Stakeholders, employers and students are applying and/or experiencing great pressure for the delivery of high quality university education. The teaching and learning of law at first-year university level poses many specific challenges. These challenges are enhanced when the subject in question is a 'service course' for students registered for degrees other than the Bachelor of Law. In addition to the ordinary challenges facing a majority of South African university students, such as language difficulties, learners like Amir require motivation to study a subject that is not a course of their own preference. Lecturers may also require some additional motivation – a factor often forgotten. It is a cumbersome task to teach a large number of students who have no foundational background in law and lecturers may feel that they have been unlucky to be asked to lecture law to students who are not registered for the LLB degree. This may result in the temptation to take short cuts in terms of preparation and explanation of legal terminology. It may also be convenient for the lecturer to use a large class size as an excuse for a poor pass rate and/or general student dissatisfaction.

In the case of a law subject, it may also be correct to argue that a different mindset and approach is required (by both students and lecturers) than with standard business courses. In addition, complex legal concepts need to be introduced in a fashion that deals with the appropriate terminology without unnecessarily complicating the learning experience – especially when taking into cognisance the diversity of students' backgrounds.

Studying a subject such as Commercial Law in the midst of hundreds of other first-year students poses a further issue. Likewise, teaching such a large class is an

overwhelming experience and failure to develop the proper rapport with the students could have catastrophic consequences for all concerned. No matter how experienced a lecturer is, there is always a tremendous buzz of anticipation at the commencement of the year's first lecture – a buzz that is sometimes accompanied by a surge of nervous energy. Failing to control this nervousness, stuttering through the opening lecture or being unprepared in terms of how to use the available technology, for example, places the lecturer on the back foot from the outset.

In addition, because of large student numbers at universities such as NMMU, lectures may have to be repeated twice after the main lecture has been delivered. This has its own pedagogic problems, in particular when the same lecturer has to conduct each of the repeated lectures. For example, Kavita might prepare exceptionally well and successfully make it through her first lecture of the day to about 400 students. However, because of the lack of a venue large enough to accommodate all students or the existence of part-time students who need to attend lectures at night, she may then have to repeat the very same lecture to smaller groups. She might be tired and bored with the subject matter of the lecture when the time comes for the evening lecture, and consequently, she may rush through the material in a manner very different from the successful first class of the day. The large numbers also impact upon the method and manner of assessment. This factor should be understood in the context of lecturer workload policies[1] and tight budgets that make limited provision for adequate marking assistance.

In 2003, only 254 of the 558 students who attempted Commercial Law (the vast majority of whom were students registered at a university for the first time) passed the course. This is a failure rate of almost 55%. As much as academics need to focus on educating students in a manner that students can identify with, it is a reality that most students are simply interested in passing the prescribed courses, without much significance being placed on the retention of knowledge beyond the examination period. This chapter seeks to specifically address the book's theme of teaching and learning in the first year, including the issues of dealing with large classes, teaching style and curriculum innovation. The core problem this chapter seeks to address is how to improve the first-year student experience and success rate in this context. Simultaneously, it is suggested that this improvement should not occur to the detriment of the lecturer concerned. It is necessary to consider these challenges against the background of the SAICA/IRBA curriculum.

The framework of the SAICA/IRBA curriculum

SAICA, together with the IRBA, have created a curriculum for people hoping to enter the accounting profession. In particular, the syllabi for law service courses have been designed to describe the knowledge that newly qualified chartered accountants should

[1] Each faculty has its own 'workload policy' at NMMU in an endeavour to standardise the teaching/research balance experienced by academics.

ideally have when they commence their careers as chartered accountants.[2] Importantly, the curriculum acknowledges that the law courses to be passed are service courses and that expert legal opinion should always be sought in difficult practical situations. As a result, the coverage aimed for is broad in nature and simply endeavours to expose students to relevant statutory and other legal principles 'at a level which will enable them to recognise problems and the need to seek expert assistance'.[3]

The syllabi that are relevant to the theme of this chapter have been specifically fashioned to guide participating educational institutions. What is emphasised is that students must be taught about the fluctuating nature of law that exists in an ever-changing regulatory environment. As far as SAICA/IRBA are concerned, it is a priority that students grasp the general workings of the South African legal system, as well as the process of interpretation of statutes. In addition, certain legislation is considered critical to the chartered accountancy profession and knowledge of such legislation must be imparted in greater detail. As a result, the SAICA/IRBA curriculum for Commercial Law is divided into three levels:

- *Level 1*: where a simple awareness of the legislation as well as the objective of the law is required;
- *Level 2*: where a basic knowledge / broad outline is required; and
- *Level 3*: where a detailed knowledge is required.

Topics may not be taught at a lower level, but importantly, may be taught at a more advanced level should the educational institution so choose.

SAICA/IRBA have structured the Commercial Law syllabus into four parts. The learning objectives differ within each of the four parts. Only part two, dealing with companies, close corporations and partnerships, requires demonstration of a detailed knowledge, *inter alia* by way of explanation of important sections of relevant acts and the effects of recent court decisions. This includes the ability to analyse a given practical situation in terms of knowledge of relevant statutes, common law and case authority.[4]

It must be understood that such detailed requisites are usually attempted in a semester course subsequent to a course introducing Commercial Law to non-law students. This initial semester course is the subject of this chapter. It is also necessary to acknowledge that not all students attending classes in Commercial Law intend to be chartered accountants or auditors, and accordingly, do not fall within the ambit of the SAICA/IRBA curriculum guidelines. Practically no South African universities distinguish between the Commercial Law requirements for students attempting the Bachelor of Commerce or Business Science Accounting streams and those attempting more general Commerce or Business Science degrees. As a result, in practice one Commercial Law syllabus is designed for all students attempting such degrees – a university syllabus

2 SAICA/IRBA Curriculum 1.

3 *Ibid*.

4 SAICA/IRBA Curriculum 2.

which endeavours to take cognisance of the SAICA/IRBA suggestions and give proper effect to their guidelines.

A fresh approach

The traditional approach to teaching law to non-law students involves the large-scale use of the existing sources of South African law, such as cases and legislation, without any meaningful contemplation of the different dynamic which is applicable in the case of law being taught as a service course. The traditional approach basically summarises complicated legal material in the time available without converting that material into something accessible.

By contrast, to achieve the learning outcomes expected of today's graduates requires the highest standards of innovative teaching and course design. More flexible learning methods are probably the only way to reach and motivate today's larger and more diverse student population and to provide the quality of education now expected (Johnstone, 1996:iii). A number of best-practice guidelines have emerged from the author's own experience of endeavouring to address the challenges outlined.

Using accessible everyday English as far as possible in all aspects of the course being presented (lectures, supporting material and in assessment) serves to accommodate the language challenges faced by multi-cultural classes. Similarly, without avoiding necessary subject-specific terminology, such jargon may be understood better when introduced carefully, progressively and in a meaningful fashion.

By focusing on the development of a proper understanding of key concepts in a manner that combines necessary theory with interesting practical scenarios and realities, the subject in question may assume greater relevance to students' everyday lives without at all undermining the crux of the knowledge expected of these students. In fact, while there is little empirical evidence in support of this assertion, it is probable that a fresh approach is as likely, if not more likely, to translate into actual engagement with the subject material (during and post-study) than would be the case with more traditional approaches. The impact of the broadening of context by including international perspectives, together with the significance of an approach which simultaneously focuses on skills development while endeavouring to develop the capacity of critical thinking requires further investigation – part of future research which may be conducted in this area.

Textbook

The use of an appropriate textbook is crucial to the first-year learning experience, both in terms of directing students towards core material that they may require in practice (that is, when aspects of law are brought into focus during the course of their particular sphere of business) and to assist students to pass the course. According to Johnstone, students will gain as much, if not more, from a good text as they will from listening to a well-presented lecture:

> Students can read material several times faster than they can absorb aurally, and have the opportunity to work at their own pace, browse, skip to another part of the text to make connections between concepts, reflect on interesting material, or re-read sections of the material they initially did not understand. Students may also find it easier to engage critically with a text than a lecture, and have a greater opportunity for judicious note taking. (Johnstone, 1996:1)

Johnstone acknowledges that developing appropriate teaching materials that improve student learning in law is time consuming and involves hard work (Johnstone, 1996:187). In fact, designing and developing appropriate materials is a more complex task than many traditional forms of teaching (Johnstone & Joughin, 1997:1). Johnstone has identified six important principles that are specifically conducive to the creation of effective teaching materials for law (Johnstone, 1996:65-102):

1. All basic subject information should be included in the instructional materials.
2. The materials should be 'user friendly'.
3. Content should be chosen to achieve a variety of learning objectives.
4. Materials that reflect a variety of different voices should be chosen.
5. Visual aids and 'signposts' should be used in the materials.
6. Teaching materials should fully engage students in 'dialogue' and activity.

Two different ways in which the law relating to the concept of latent defects may be put to students serve to illustrate different approaches of conveying the same idea.

Option A: A traditional approach

> The purchaser is entitled to a merx free from latent defects.
>
> An implied warranty against latent defects is read into every contract of sale, unless it has been excluded by the parties. This warranty entitles the purchaser to certain legal remedies, should the merx contain a latent defect. The seller is liable for latent defects despite the fact that he or she was unaware of the defect and did not act in bad faith. A purchaser who wishes to institute a claim because of latent defects in the merx, must prove that
>
> a) there is or was a material defect in the merx. A material defect is a shortcoming or abnormal characteristic in the merx which renders it completely useless or less useful for the purpose for which it was bought. If the purchaser indicated expressly or by implication to the seller that he or she wanted to use the merx for a specific purpose, the defect will be regarded as material if it impairs the serviceability of the merx for such purpose. If a special purpose was not known to the seller, a material defect is one which detrimentally affects the serviceability of the merx for the purpose for which things of that kind are ordinarily used ...

Option B: A fresh perspective

> In the days of the Roman Empire, the poor slaves were valuable 'property' for the slave owners, who would buy and sell them at a market. A slave who was a good gladiator (fighter), for example, could earn a lot of money for his master. Now imagine that Remus (a wealthy slave owner) sold his slave Maximus to Claudius (another slave owner) for fifty gold coins. Maximus was tall and well built, and Claudius hoped to make a lot of money through this deal. Claudius proudly took Maximus to the Colosseum (the big stadium in Rome where people were entertained in ancient times, similar to the sports stadiums of today), but after handling the sword for about half an hour, Maximus was unable to move his arm for a week. Some law had to be made to protect Claudius in this situation, especially because it would be difficult for Claudius to prove that Remus had known of Maximus' weak arm. Faced with this sort of problem, the magistrates of the Roman markets made an edict (an official rule or order). This edict made it the seller's duty to tell the buyer about any hidden problems in the item being sold – problems that might cause the item to be in a less than perfect condition for the purpose for which it was going to be used. These problems (or flaws or faults) are called defects. To this day, it is the seller who has to take responsibility for defects, even if he wasn't aware of them at the time of the sale. The reason for this is that the seller is in a position to be aware of defects in the item being sold. To the buyer who buys an item and discovers a defect afterwards, it makes no real difference whether the seller was being dishonest or didn't know about the problem. This responsibility for defects is one of the duties that the law puts on the seller in a contract of sale.

The differences between the two approaches are striking. Whereas the former is littered with jargon that has not been explained to the reader and contains long sentences full of complicated English words, the latter bases the explanation around a scenario that students may be able to identify with more easily. The sentences are short and crisp and jargon is highlighted and explained. The paragraph flows like a story and, it is submitted, is more likely to result in the meaningful understanding of the material by students.

Importantly, the sort of lecture presentation facilitated by the manner the material is presented in Option B is likely to impact upon the mindset and approach of the lecturer concerned. While it is true that a lecturer may simply ignore this approach (even if it is contained in the textbook) and teach in the traditional fashion, the provision of such scenarios in the text make it easier for lecturers to use the examples provided to explain the content contained in the book. When preparing for a class, it is often difficult to think of appropriate examples to explain complicated material – especially if the academic lacks practical experience in the particular area of law. The use of appropriately crafted texts should assist lecturers in aligning their presentation style to one that simplifies (rather than complicates) the material being presented.

Of course, it is also a tremendous advantage when books, such as study guides, are available for students who require specific additional support which lecturers may be

unable to provide given the large class numbers. Such guides are most useful when based on content requiring mastery for purposes of tests and examinations. Additional material can assist in the identification of the most important themes, topics and ideas that must be understood and can help in the development of the skills necessary to master the course. The material can also be used to introduce students to additional questions and to provide a step-by-step guide to answer questions. This will help to ensure proper preparation for tests and examinations.

Technology

While the role of technology in legal education has been questioned, it is generally accepted that the use of technology can assist in facilitating an appropriate approach (Maharg, 2007:261). For example, placing notes, such as a PowerPoint presentation, on an intranet site well in advance of a lecture gives diligent students the opportunity to view the presentation for a given lecture, digest the material to be covered during the lecture, match this material against the content contained in the prescribed textbook and come to class ready to engage with the lecturer regarding any points of difficulty. This approach also enables students to spend their time in lectures listening to the explanations offered rather than frantically scribbling down notes. Modern recording devices that permit an audio media file (digitally recorded) to be placed on an intranet site or e-mailed to students is a further innovation which requires serious consideration and investigation. At the very least, this option will permit a student to catch up a missed lecture without any additional time being spent on the part of the lecturer concerned. A confused student may also refer to a particular recording of a lecture in order to grasp the gist of a troublesome topic rather than trying to make contact with a fellow student a few hours before a major examination.

Where costs permit, a compact disk could be included as part of the prescribed study material. This could provide additional material (such as cases and Acts of Parliament) to students who enjoy access to computers. For those students who do not have such access, the additional material may be printed and placed in the university library. It is also possible to assist lecturers by creating compact disk support material, such as presentations and additional questions and activities, pertinent to their lectures. An academic who is lecturing a course for the first time may be unsure as to the level of detail required and how to assess the students' performance. Such assistance will enable the lecturer to better understand the level at which the material should be presented. The lecturer will also have the benefit of suggested assessment activities. This may assist inexperienced colleagues in pitching the prescribed material at the appropriate level and in understanding the suggested tone of the course they are lecturing.

In very large classes, properly installed data projection devices and sound equipment can also facilitate student interest and involvement, especially when considering that audio-visual equipment tends to assist in maintaining silence (and student focus) during lecture presentations.

Research has also shown that these interventions contribute to the general interest level generated by the course. They also seem to serve as a motivator and encourage students to attend classes (despite attendance being voluntary) and to give due attention to the subject of commercial law, thereby improving their chances of passing. It was specifically observed that students in a large class remained quieter during lectures delivered in dim lighting with the assistance of a PowerPoint presentation. Students also interacted more with the lecturer in such an environment and it may be speculated that this was a direct result of their enhanced comprehension of the subject matter taught in that particular lecture. A number of students specifically commented upon such factors in student feedback forms for the subject.

The method of assessment

It has been argued that there must be a coherent link between the learning objectives in a subject, the assessment tasks and the selected teaching methods (Johnstone, Patterson & Rubenstein, 1998:32). In addition, there appears to be some evidence that the method of assessment is directly connected to the number of students who pass a course in Commercial Law. In particular, when both long questions and multiple choice questions were used, students appeared to struggle to grasp the same material for these two different forms of assessment. The pass rate at NMMU grew by almost 50% when the method of assessment was changed to problem-type multiple-choice questions only. This approach enabled students to prepare in a specific way by remembering detailed points of law rather than trying to remember entire pages of text for long questions plus details for purposes of shorter questions. Using the same singular assessment criteria for three tests, a main examination and a supplementary examination has also consistently proved to be successful in improving the pass rate. While it would be interesting to note the impact of negative marking on these figures, it is clear that a year which saw all questions having an additional option marked 'none of the other options is correct' (or incorrect, depending upon the question asked)' resulted in a 10% drop in the course pass rate.

Conclusions and recommendations

Lawyers and legal academics who teach so-called 'service courses' in law to first-year non-law students at universities should carefully consider the dynamic of the situation they face before adopting a traditional or standard system of instruction. A more flexible approach in terms of selection of an appropriate instruction method that stimulates interest amongst students and a focused and consistent assessment strategy throughout the course may have a positive influence on both the teaching and learning experience. This approach must, however, consider the practical problems common to the assessment of large classes. Flexible learning takes many forms, but it typically incorporates greater freedom in location and time of study, greater student control over learning goals and style, less lecturing and transmission of knowledge in large classes and the use of high quality resource materials, such as printed study guides or their computer-based equivalents. As Johnstone notes:

> Practised well, flexible learning fits education more closely to the needs of students, and has the potential to enhance the quality of outcomes through closer and more active engagement with the subject matter. The application of flexible learning methods to professional subjects, where strong integration between theory and practice is an indispensable part of a student's training, is particularly appropriate. (Johnstone, 1996:iii)

In the case of the teaching of an introductory Commercial Law course for commerce or business science students, additional support for this type of approach is to be found in the SAICA/IRBA curriculum, which grades the requisite knowledge into three levels. While some of the material covered requires a basic knowledge and broad outline, the majority of subject matter simply requires awareness of the applicable legislation together with the objective of the law in question. As the SAICA/IRBA curriculum indicates, what is essentially expected of non-law students of Commercial Law in their first encounter of law is an awareness of the issues together with the knowledge that detailed problems in these areas often require expert legal assistance. Accordingly, it is argued that these guidelines open the door to greater flexibility in terms of the content focused upon. It is up to the lecturer in charge to identify key topics within the mandatory themes to be covered and to present this material in a fresh and interesting manner. Non-core material, which is unnecessarily complex for purposes of students who simply need to know the basics, should accordingly be omitted. Far from resulting in the downgrading of the course or the lowering of standards, this approach will free up space in the presentation of the course for interesting, topical and relevant discussions. Such discussions are more likely to stimulate passion for a course that a student, such as Amir, would not have studied out of choice. Such an approach would also benefit other lecturers in Kavita's position.

A 'new generation' textbook and other supporting material, such as a study guide or multilingual dictionary that conveniently translates Latin maxims into three South African languages, would appear to enhance the experience of students in such a classroom. Ideally, teaching material (together with classroom teaching methods) should be tailored to meet the interests and needs of students in accordance with a carefully selected range of learning objectives (Johnstone, 1996:187). Given the large classes, the proper use of available technology, such as PowerPoint presentations, digital audio recordings and supporting compact disks with additional material, may also play a significant role. Ultimately, students want to pass the course in order to obtain credit for degree purposes. While problem-type multiple-choice questions raise a number of debatable issues (even in cases where students have no access to past papers in order to memorise answers), our experience at NMMU seems to suggest that a consistent application of one method of assessment pays dividends by equipping students, through practice, with the necessary techniques to answer such questions over the course of a semester. Adverse side effects of this somewhat expeditious approach may be ameliorated by rigorous moderation, both internal and external.

Increased attention to how and why law is taught to students of other disciplines requires more than merely modifying traditional methods to ensure that they are more

appropriately and effectively used. In fact, new and different methods to provide more effective and efficient legal education should be developed and adopted (Goldring, Sampford & Simmonds, 1998:89).

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CHAPTER 12

FACTORS INFLUENCING THE LEARNING PROCESS IN FIRST-YEAR CHEMISTRY

HANELIE ADENDORFF
MARIETJIE LUTZ

Introduction

> [First-year chemistry students] think that by being in class the information is magically absorbed and stored in their brains.

This sentiment, as expressed by a first-year chemistry student at Stellenbosch University, might not come as a surprise to most academics. Convincing students to actively engage with the process of learning is not an easy task and often defeats our best efforts and purest intentions. Teaching and learning experts suggest that we can change this by changing our assessment strategies (Gibbs, 1999; Gibbs & Simpson, 2004).

There is substantial evidence that assessment plays a significant role in determining students' learning strategies, approaches and activities. Assessment strongly influences what students attend to, how hard they work, how they allocate their study time and what they can afford to get interested in (Stallings & Leslie, 1970). Many authors have cited its power to affect student learning for good or bad (Black & Wiliam, 1998; Boud, 1995; Brown, Bull & Pendlebury, 1997; Gibbs, 1992; Gibbs, Simpson & Macdonald, 2003; Ramsden, 1992; Rust, 2002). In the words of Boud (1995:35): '[S]tudents can, with difficulty, escape from the effects of poor teaching, they cannot (by definition, if they want to graduate) escape the effects of poor assessment'. The Higher Education Quality Committee (HEQC) of South Africa echoes this, calling student assessment a 'key indicator of the health of teaching and learning in Higher Education institutions' (HEQC, 2003).

Various authors (Broekkamp & Van Hout-Wolters, 2007; Frederiksen, 1984; Newble & Jaeger, 1983; Scouller, 1998; Van Etten, Freebern & Pressley, 1997) describe ways in which assessment impacts learning. The first of these is the quantity and distribution of student learning effort. The scheduling, nature, perceived importance and level of difficulty of the assessment tasks all affect students' choices in terms of when and how hard to learn. Secondly, assessment influences the resources students choose

to use and how they choose to use them. Besides influencing what, when and how students learn, assessment also impacts learning in affective ways. Where students do not believe in a positive relationship between effort and performance, it could negatively affect their motivation to study. Similarly, the level of threat and anxiety associated with assessment tasks can also lead to positive and negative outcomes in terms of student learning.

Gibbs *et al.* (2003) mention eleven conditions under which assessment supports student learning. Amongst these are two conditions that impact the quantity and distribution of effort, namely designing assessment tasks that capture sufficient study time and distributing assessment tasks across topics and weeks. Another two conditions are concerned with the quality and level of student effort, while seven of the conditions focus on the role of feedback – the quantity and timing of feedback, the quality of the feedback and how students respond to the feedback provided.

Clearly, the assessment choices we make impact the learning choices students make. In this study, two individuals who believe in the value of classroom research – one an educational developer, the other a Teaching Fellow in a Chemistry department – decided to put this to the test in a fairly large first-year Chemistry module at Stellenbosch University. This module presents numerous challenges to the five lecturers who teach it. It serves as both a mainstream and service module with many students having to take it as a requirement for their selected (non-chemistry) study programme. Responses in the annual, institutional student feedback questionnaires repeatedly include questions about relevance to various fields of study in addition to mention of the module's difficulty and high workload. Students also highlight a lack of interest, and negative beliefs about their ability to be successful in Chemistry. A common concern amongst lecturers on the module is that very few students make any effort to stay up to date with the work during the semester. Even then, they feel, students often use a surface approach rather than trying to understand the underlying concepts. Since each topic in this module builds on the last, habits such as these are especially troublesome.

This chapter will report on two studies: one documenting the relationship between current assessment and student learning; another documenting an attempt to use assessment to address some of these problems. As part of the second study, it will discuss the choices students made in response to an intervention that was introduced to encourage more effective and consistent study habits.

Chemistry 114 context

Chemistry 114 is a fairly large module with a history of poor pass rates and unsatisfactory student ratings. Presented in the first semester of the first year, this module covers basic introductory chemistry topics such as stoichiometry, electronic structure and bonding, equilibrium, solubility and redox reactions. It is taught by a team of five academics from the Chemistry department. The students taking this module are typically divided into five groups with each of the five lecturers in the team taking responsibility for one of these groups. Formal contact sessions comprise

three 50-minute lectures per week as well as four two-hour tutorials and six three-hour laboratory sessions spread over the course of the semester.

The population of 868 students in this study included 210 students who were repeating the course, 423 (48.7%) males and 445 (51.3%) females. Students taking the module bring with them a variety of academic backgrounds, motivations and expectations. Almost 91% of the students in this study took Chemistry 114 as a pre-requisite for further study in other fields, such as biological sciences.

Assessment tasks in the module focus strongly on the ability to integrate and apply basic introductory concepts in solving specific problems (chemical calculations). The assessment consists of four tutorial tests, six practical reports, a class test towards the middle of the semester, and an end of semester examination. Figure 12.1 shows that the tutorial tests, written at the end of a tutorial session, make up 30% of the class mark with practical marks adding 20% and the class test the remaining 50%. The class mark and the examination mark contribute 40% and 60% respectively towards the final mark for the module.

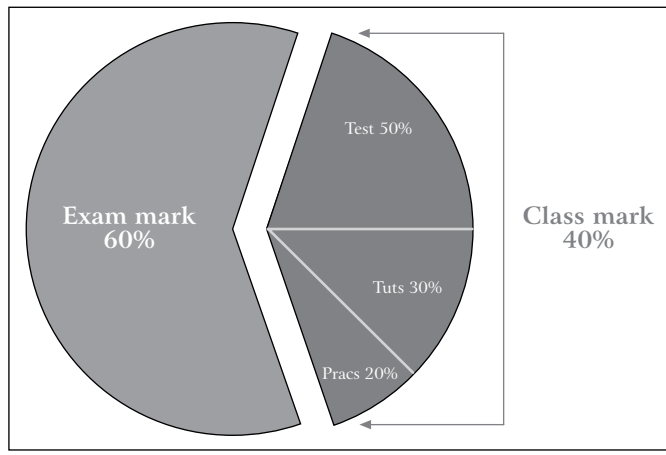

Figure 12.1 Allocation of marks used for calculation of final mark in Chemistry 114

The class test and the examination paper consist of multiple-choice and constructed response items, while the tutorial tests use multiple-choice questions only. In all of the assessment tasks there is a strong emphasis on calculations with more than 95% of the questions – multiple-choice and constructed response – requiring calculations based on the application and integration of basic chemistry concepts. The practical reports also include calculation based questions, contributing 15-50% to the final practical mark.

Two problems were of interest to this project: erratic study habits comprising short bursts of cramming prior to high stakes tests and ineffective learning methods in

which students employ surface and algorithmic approaches (Case & Marshall, 2004). We addressed two questions in these studies:

1. What are the study habits of students on the Chemistry 114 module?
2. Can regular small in-class tests benefit students?

Methodology

Two studies were carried out. The first was a case study investigating the expected and actual study habits of students in the module. The second entailed the implementation and small-scale evaluation of an intervention: the introduction of small, formative in-class tests with one of the five class groups (N = 154).

Case study

This study focused on how students approached existing assessment opportunities. We also compared the expectations of the lecturing team about students' study habits required for success, with the study habits reported by the students.

The participants in this study included the 868 students enrolled in Chemistry 114 during the first semester of 2008 as well as the five lecturers who taught on the module.

Two data collection methods were used. A paper-based questionnaire, which contained both quantitative and qualitative items, was used to gain insight into students' beliefs and study habits. The teacher-researcher in this project also conducted individual interviews with the Chemistry 114 lecturing team, in part to form an understanding of their expectations and how that relates to what the students reported, but also to keep them informed about the study and to gain their input.

In-class tests

Small in-class tests were introduced in the hope that they would encourage consistent work and more effective study methods. Students were notified beforehand when a test was scheduled, with an indication of which concept was going to be tested. Although these tests did not contribute towards the class mark and the students were aware of this fact, the tests were marked and the marks were recorded on a register. Each test contained only one calculation-based question and took five to ten minutes to complete. Marked tests were handed back during the next lecture, when the correct answer was also explained. In addition to hopefully providing external motivation for students to keep up with the work, these tests provided students and the lecturer with immediate feedback on areas of the work that needed extra attention.

Participants in this study were one of the five lecture groups (N = 154), and thus a subgroup of the 868 students who participated in this study.

Students in the group who were exposed to the small, formative, in-class tests were asked to give feedback on this intervention via an e-mail-based questionnaire with open and selected response items. This questionnaire was administered during the second semester of 2008, a few months after completion of the Chemistry 114 module.

Data analysis

Data from selected response items in the questionnaire were analysed using descriptive statistics. Qualitative data from the open-ended questionnaire items were analysed, using the principles of thematic analysis.

Findings

Student responses to the existing assessment opportunities and the intervention were considered in terms of when and how hard they worked as well as what resources they selected and the level and kind of engagement with these resources. Lecturer opinion and expectations were then compared with these findings. In the first two sections, we will discuss how students responded to the existing learning and assessment opportunities. In the third section, we will consider their response to the intervention.

Case study

Quantity and distribution of effort

Students were asked to indicate the amount of time allocated to the existing learning and assessment opportunities in the module (see Appendix 1, Question 1). Their responses are summarised in Table 12.1.

Table 12.1 Time spent on different learning activities

Learning opportunity	Time spent in hours					
	0 hr	1-2	2-3	3-4	4-5	>5
Per tutorial (N=587)	15.3%	48.0%	21.6%	7.8%	4.3%	2.9%
Per practical session (N=576)	17.9%	59.5%	17.4%	2.6%	1.4%	1.2%
Class test (N=581)	4.6%	7.7%	11.4%	11.2%	12.2%	52.8%
Extra exercises per week (N=583)	35.7%	37.6%	15.3%	6.0%	3.2%	2.2%
Additional revision of theory and examples (N=583)	16.6%	38.4%	21.6%	9.6%	4.6%	6.9%

In addition, the lecturing team members were asked how much time they thought students needed to spend on the different tasks in order to be successful in the module (Table 12.2).

Table 12.2 Expected time allocation according to lecturer team

Learning activity	Time (hrs)
Per tutorial	3-5
Per practical session	1-2
Class test	12-24
Doing extra exercises per week	2-6
Additional revision of theory and examples	1-4

From Table 12.1 it is evident that most of the students spent between 1 and 3 hours in preparation of the weekly laboratory and tutorial sessions. Thus, 77% of the students spent as much time preparing for laboratory work as the lecturers expected, with 18% indicating that they did not prepare for these events. In the case of tutorials, the picture is not quite as positive with only about 35% of the students putting in the amount of effort the lecturers had expected and 15% of the students putting in no effort to prepare for the tutorial. This is of some concern if one takes into account that the tutorial marks account for 30% of the class mark. With the class test, matters are even worse with most students falling far short of the lecturing team's expectation (Table 12.2) of 12 to 24 hours of preparation. Almost half of the group indicated that they spent less than five hours preparing themselves for this crucial assessment opportunity.

As predicted in the literature, most students spent very little time, over and above test preparation, on reviewing their work and staying up to date, with 37.6% (N = 583) spending less than two hours per week on this and 35.7% affording no time to it.

The findings from this part of the study confirm previous findings (Black & Wiliam, 1998; Van Etten *et al.*, 1997) that student effort – both in terms of quantity and distribution – is related to the nature and scheduling of the assessment tasks. Most of the students only worked in preparation for tests. Furthermore, the effort they put into preparing for the different tests seems to be influenced by their nature and importance. Though the amount of time students reported spending on preparation for the class test was less than that expected by the lecturing team, this is still the assessment opportunity most students spent the most time on (see Table 12.1). One reason for this might be that the class test contained a mix of constructed response and selected response items, as opposed to the tutorial tests, which contained only multiple-choice items. This is in line with the findings of Scouller (1998) and Van Etten *et al.* (1997) who referred to a greater reliance on low-level memorisation in the case of multiple-choice tests. Fransson (1977) also mentions that the degree of threat has an impact on students' response to assessment tasks. In this case, each individual tutorial test, contributing only 7.5% to the class mark, represents a much lower degree of threat than the class test, which counts for half of the class mark.

The selection and use of available resources

Students can approach chemistry by 'rote learning' theoretical concepts or by practising the application of the concepts through doing exercises. Lecturers in Chemistry 114 emphasise the importance of doing exercises in this module. To this end, some of the lecturers give students a list of appropriate textbook problems to try after each lecture. In addition to the examples and exercises in the textbook, students can access tutorial questions (which are available a week before the start of the tutorial) and old test and exam papers online. This leaves no shortage of exercises to utilise.

Van Etten *et al.* (1997:202) found that students knew what was required for success, but that test preparation is complex, 'involv[ing] strategic coordination of a number of resources'. Similarly, the Chemistry 114 students knew what they had to do to be successful. When asked (in the second questionnaire) how important they thought it was to do exercises in order to prepare for the class test (see Addendum 1, Question 2), 92.6% (N = 752) of students stated that it was very important and 85.8% (N = 754) said that they were going to do *many* exercises (more than one per section) in order to prepare for the class test (see Addendum 1, Question 3). Sadly, this did not translate to reality. In subsequent questionnaires, less than 30% of the group indicated that they tried working on problems or using the formative assessment opportunities provided in the module. When given a list of resources (PowerPoint lectures, theory sections in text book, own summaries, completed examples, tutorials, exercises, old question papers) and asked which one they used *the most* during their preparation for tutorial tests (see Addendum 1, Question 4), only 3.3% (N = 583) chose exercises while just 4.9% (N = 586) indicated that they primarily used exercises during their preparation for the class test. These resources can be separated into two broad categories: those that require active work using application and integration of basic concepts (examples, tutorials, exercises, old question papers) and those that do not necessarily require active work of this nature (PowerPoint lectures, theory sections in text book, own summaries). When these resources are separated into these categories, most of the students (74.7%, N = 583) chose the latter option which could be handled with less cognitive effort (PowerPoint lectures, theory sections in text book, own summaries).

A number of factors might play a role here. It has been noted that students are more likely to engage with material that featured in class discussions (Van Etten *et al.*, 1997). The nature of the tutorial tests, which might be perceived to be on a lower cognitive level (Scouller, 1998), might be another factor to consider in the choice of material and study methods. Van Etten *et al.* (1997:209) claim that the format of the upcoming exam 'shapes study and affects performance'. In addition, it has been argued that high volumes of work can result in lower levels of cognitive engagement and drive greater selectivity in terms of resources used (Ramsden, 1984). Students in one study (Van Etten *et al.*, 1997) reported greater motivation to study for material of medium difficulty. When the content is seen as too difficult or when the volume becomes too overwhelming, as might be the case here if one considers the opinions expressed in student feedback surveys, it can negatively impact their motivation to study it.

Reported strategies for dealing with high volumes of work included skim reading and reading what is most informative (Van Etten *et al.*, 1997).

Case and Fraser (2002:42) also found that having to cope with high volumes of work 'would appear to counter the development of conceptual approaches to learning and learning outcomes that include conceptual understanding'. This might help to explain their choice to focus on the PowerPoint presentations and theory sections, which might be perceived to require less cognitive effort.

In-class tests

The in-class tests can be seen as a version of the 'two stage tests' mentioned by Gibbs *et al.* (2003). By using regular, small in-class tests with immediate feedback, it was hoped that the quantity and distribution as well as the quality of student effort could be improved. This intention also captures a number of the eleven conditions under which assessment supports learning (Gibbs *et al.*, 2003), including the distribution of effort across weeks and topics, capturing sufficient study time, engaging students in productive learning activities and providing quick feedback.

In the third questionnaire, the entire group of students – including those who were not exposed to frequent, formative in-class tests – were asked whether they thought such tests could help them identify areas of learning in need of development (see Appendix 1, Question 5(c)). Most (86.1%, N = 563) indicated that they thought such tests could help them in this way, and although 91% of them preferred the dates of these tests to be announced beforehand (see Appendix 1, Question 6(a)), 63% thought that unannounced tests would lead to improved concentration during lectures (see Appendix 1, Question 6(d)). Interestingly, 63% of students felt that they would study for these tests even if they did not contribute to their class mark (see Appendix 1, Question 6(c)).

Students in the group in which the small in-class tests were used (N = 154), were asked what they thought contributed to their pass rate (see Appendix 1, Question 7), which was 14% higher than that of the rest of the group (N = 714). The majority (81%, N = 2) of the respondents indicated that they thought that the small in-class tests contributed meaningfully towards the higher pass rate of this group, while 44% selected the frequent small in-class tests as the most important factor (see Appendix 1, Question 8) contributing to the higher pass rate.

Students identified at least six reasons why they chose to pay attention to the regular class tests (see Appendix 1, Question 9). They mentioned that the amount of work that had to be prepared for each of these tests seemed more manageable, they knew exactly what to expect, the material was still fresh in their minds at the time of the test, their marks were recorded by the lecturer, the results were available almost immediately, and the tests provided them with valuable feedback.

Although this feedback was not anonymous, it was requested a few months after the students had completed Chemistry 114. Most of the respondents also did not intend to continue with Chemistry. Thus, the risk of bias introduced by the fact that it was not anonymous was hopefully lowered.

Discussion

The purpose of the intervention tested in this study was to enhance consistent, effective work – what Chickering and Gamson (1987) call 'time on task'. Citing the work of other authors, among which a meta-analysis of forty relevant studies by Bangert-Drowns, Kulik and Kulik (1991), Black and Wiliam (1998) suggest that frequent testing can enhance learning. In line with this claim, it was hoped that the small, frequent in-class tests would encourage students to review their work on a regular basis and adapt their study habits. Feedback about the small in-class tests (e-mail survey) seems to indicate that it achieved this purpose. In the words of one student: 'The small in-class tests force you to review the work every day which one wouldn't do under normal circumstances ... .'

In addition, it was hoped that the nature of these tests would encourage students to aim for understanding of the concepts rather than adopting inappropriate surface approaches. To this end, these tests used calculation-type questions similar to those in the class test and formal exam. We also believe that the availability of feedback very shortly after the tests were written, aided in achieving this purpose. Not only did it alert students to flaws in their preparation and areas that needed more attention, but it did so while the work was 'still fresh in their minds', in the words of one the students. In responses to the e-mail questionnaire, students highlighted the fact that the feedback provided on these tests was of great value, listing it amongst the reasons why they paid attention to these purely formative assessment opportunities. Gibbs *et al.* (2003) argue that students are more likely to use feedback to work that will be tested again. They suggest the use of 'two staged classroom tests ... where the first stage is formative and the second stage ... is summative' in which students can use the feedback from the 'formative stage to orient and focus their study behaviour in preparation for the summative stage' (Gibbs *et al.*, 2003:2).

What might come as a surprise is that students in the intervention group reported taking these small in-class tests seriously, given that they were purely formative in nature. Summative assessments have often been mentioned as a 'salient motivation' for studying (Van Etten *et al.*, 1997:208). The students in the Van Etten *et al.* (1997:200) study were 'emphatic that examinations *per se* motivate studying', adding that most active studying would cease in absence of examinations. However, in a comprehensive review article, titled 'Assessment and classroom learning', Black and Wiliam (1998:24) state that 'there is evidence from many studies that learners' beliefs about their capacity as learners can affect their achievement'.

If we look closer at the context of this study and the rest of the Van Etten *et al.* (1997) findings, the choices the Chemistry 114 students made in this module start to make some sense.

In the student feedback collected for Chemistry 114 in 2008, the students referred to the study material as 'academically challenging' and added that 'students struggle with Chemistry'. They also mentioned the workload in comments such as: 'can possibly work a little slower so one can keep up, especially with the theory' and '... the work covered in some lectures is far too much to grasp, perhaps, pace should be essential'.

Furthermore, students mentioned an inability to see the relevance of this module to their selected courses of study. Various comments referred to this issue, with statements such as 'this module is unnecessary for my course of study!!!' and 'I am unfortunately forced to take this module and I hate it! The lecturer is very good; the subject just does not interest me at all.'

Van Etten *et al.* (1997) show that students study less for subjects when they fail to see the relevance of the work, find it uninteresting or when the subject is not their major. In addition, when the volume or difficulty level of the work is perceived as too high, it can negatively impact the study time. When students start to doubt that the time they have to invest in learning the work will pay off, they might also decrease the study time for that subject. We can add to these factors, which have all received mention in the student feedback for Chemistry 114, the fact that this compulsory module often stands between them and doing what they really want to do. The following comment from the 2008 student feedback for the module clearly illustrates this: 'Subject not relevant to some courses, take this module out of Conservation Ecology. It will take me 10 years longer with this subject in my course.'

If we now return to the small in-class tests, and consider what students had to say about them, we can see how it unintentionally addressed a number of these issues at once. On the one hand, the small in-class tests reduced the immediate workload by breaking the work into manageable chunks. In telling students exactly which concept to concentrate on and aligning it with the discussions in class, these tests also limited the difficulty level. Together, these factors could reduce anxiety and increase students' sense of agency, fostering a belief that studying can lead to the required outcomes. This is also in line with findings that students work harder for 'medium difficulty' work which 'would pay off without taking too great a toll on their other commitments' (Van Etten *et al.*, 1997:208).

On the other hand, the small in-class tests strangely enough raised the risk of exposure. Unlike the tutorial tests, these were marked by the lecturer who also kept a register of the marks. Tutorial tests, meanwhile, were marked by the thirty-four tutors on the module, and the marks were fed into a central system without being passed to the lecturers. In the e-mail feedback on the small in-class tests, students referred to the recording of their marks by the lecturer as having an impact on their choice to take these tests more seriously.

Although the two studies we are reporting on resulted in different data sets that cannot be related in any way, an understanding of each helped form and inform our understanding of the factors involved in the other.

This study also highlighted a new concern in the module: the possibility that tutorial tests, besides not reaching their purpose, might actually encourage ineffective study habits. If multiple-choice tests do encourage surface approaches as has been suggested (Scouller, 1998; Van Etten *et al.*, 1997), exposing students to four such tests, and no other form of summative assessment, in the run up to the class test, might create unrealistic expectations. It has been argued that students sometimes use

the tests early in the term to determine how future tests should be approached (Van Etten *et al.*, 1997). Case (2004:146-148), for example, reported the unwillingness in one candidate to adapt his study habits after an 'easy' first test, even when subsequent tests were failed,

Conclusions

This study shows the value of using assessment to encourage consistent work and more effective study habits, but it also highlights various complicating factors including contextual and affective issues.

Using assessment in this way has improved learning in this study in at least two ways. It provided an extrinsic motivation to encourage daily reviewing, at least for some students, and it afforded students with a sense of control over the work. Students in the Van Etten *et al.* (1997:200) study indicated that 'whether they study or not depended more than anything else on whether they believed studying would make a difference in how well they did'.

However, using assessment to drive learning is not a straightforward process. This study highlighted many competing factors that can mediate student choices. In this case, factors such as workload, level of difficulty of the work, test format, risk of exposure in different assessment opportunities, compulsory nature of the module for many students and the inability to see the relevance of the topics, all seem to play a role in what students decide to do.

In the words of Van Etten *et al.* (1997:194): '... study activity and achievement both depend greatly on the characteristics of courses, consistent with the conclusion that studying and learning are situationally sensitive'.

Another positive result of this study was a re-iteration of the value of teacher-researchers doing classroom research at first-year level (Cross, 1996). Being involved with the teaching and administration in this course afforded the teacher-researcher in this study with the chance to test in-class initiatives and led to a unique understanding of the issues and difficulties in this course. Teacher-researchers are also perfectly placed to respond to the findings of classroom research.

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Appendix 1:
Selection of relevant questions from the questionnaires

Questions 1 to 6 were from the paper-based questionnaires while Questions 7 to 9 were used in the e-mail questionnaire.

1. Time allocation for Chemistry 114	None	1-2 hours	2-3 hours	3-4 hours	4-5 hours	More than 5 hours
a) How much time did you on average spend on preparation for each tutorial session?						
b) How much time did you on average spend on preparation for each practical session?						
c) How many hours did you more or less spend on preparation for the class test?						
d) How much additional time did you on average spend on Chemistry 114 each week (preparation for tutorials, practicals and class tests excluded)?						
e) How much time did you on average spend on working out examples each week (tutorials excluded)?						

2. How important do you think it is to do your own exercises in order to prepare for the class test?					
Very important		Slightly important		Not important at all	

3. How many exercises do you plan to do in order to prepare for the class test?					
Many (more than 1 per section)		Few (1 per section)		None	

4. Material used during preparation	PowerPoint lectures	Text book theory	Own summaries	Completed examples	Tutorials	Exercises	Old question papers
a) What did you use the most during preparation for the tutorial tests?							
b) What did you use the most during preparation for the class test?							

5. Small in-class tests	Yes	No	NA
a) Has your lecturer let his/her students write regular small in-class tests thus far?			
b) If so, did you prepare for it (in the case where it was pre-announced and not an unprepared test)?			
c) In the case where your lecturer gave small in-class tests, was it possible for you to conclude from this whether you understood the relevant wo			
d) Would you prefer to write such small in-class tests (counting 1 or 2 marks) on a regular basis (average once a week)?			

6. Small in-class tests	Yes	No
a) If you wrote small in-class tests on a weekly basis (1 or 2 marks) in Chemistry 114, would you prefer that they were announced before the time?		
b) Would you have prepared for the announced small in-class tests if they had counted towards your class mark?		
c) If the small in-class tests did not count, would you still have prepared for them?		
d) If the small in-class tests were unannounced, would you have paid better attention in class than if there were no small in class tests?		

7. Do you think that the small in-class tests (1 or 2 marks), which were written during lecture periods, made a meaningful contribution towards the much higher pass rate?	Yes	No
8. In the case where you have answered 'yes' in the previous question, would you regard the small in-class tests as the most important contributing factor towards the higher pass rate?	Yes	No
9. Any comment with regard to the small in-class tests?		

CHAPTER 13

RESEARCH AND THE FIRST-YEAR STUDENT
OPPORTUNITIES FOR LEARNING

STELLA GRANVILLE
LAURA DISON

Introduction and context

Students becoming researchers

The purpose of this account is to describe a foundation course in research practice presented to first-year students in the Humanities Faculty at the University of the Witwatersrand. It describes how the learning processes for students were conceptualised, theorised and put into practice. The project is conceived around the notion that one route to gaining entry into the academic community is to do what academics do – that is, engage in research and thus contribute, even in some small way, to the production of knowledge. It introduces students to the 'processes' that lie behind the academic texts that they are required to read at the University (Faculty of Humanities Handbook, 2000). The aim of the course, therefore, requires students to conduct small-scale research projects as a way of experiencing what it means to be a member of the academic community (Hyland & Hamp-Lyons, 2002; Lave & Wenger, 1991; Lea & Street, 1998) and to understand its 'culture' and its practices.

The students

The students taking part in the course come from both rural and urban contexts and are admitted to the university on the basis of special selection tests since most do not meet the normal admissions requirements. Most come from severely underprepared educational backgrounds and some are products of the 'Model C' schools[1]. The majority of the students speak more than one African language and all have one or two African languages as their mother tongue. Because of the multilingual environment in which students are immersed, they can clearly make a real contribution to knowledge in this field. Also, they have access to many different sites for research, both in urban centres

[1] See explanation in 'Introduction', 'Notes to the reader'.

as well as in rural villages. In this way, students bring new knowledge, motivation and personal 'investment' (Norton, 2000:273) to the project.

Entering the community

According to Zamel (1993:28):

> Students entering a new community must take on its ways of knowing and its 'ways with words'. The idea of a culture suggests a kind of immersion, engagement, contextualization, fullness of experience that is necessary for someone to be initiated into and be conversant in that culture, for someone to understand how that culture works.

This chapter demonstrates how the research approach provides multiple opportunities for student learning to take place. This approach encourages students to become independent learners, develops enquiry-based skills, promotes creative problem-solving and fosters initiative and resourcefulness (Brown, Bull & Pendlebury, 1997). It does so in a manner that differs from the conventional 'skills-based' approaches adopted in many other foundation-type courses, including the academic literacy courses we ourselves teach. This does not undervalue the importance of helping students to acquire academic literacy skills, such as writing essays, constructing arguments and learning appropriate referencing procedures – these skills are integrated into the research course in the context of the research project. We argue that the strength of this particular intervention is that skills are integrated into the project, that it deepens both linguistic and cognitive development, and that it makes the more conventional academic development approach more meaningful.

The chapter is broadly framed around three overlapping theoretical perspectives, namely, academic literacy as social practice (Lea & Street, 1998), language and identity (Norton, 2000), and communities of practice (Lave & Wenger, 1991). The first perspective, 'academic literacies as social practice', is defined by Lea and Street (1998) and draws on the New Literacy Studies (Gee, 1990; Street, 1984), which sees literacy as social practice. This model moves away from 'skills' and focuses on 'meaning making and contestation around meaning'.

According to Lea and Street (1998:59):

> A practices approach to literacy takes into account the cultural and contextual components of writing and reading practices and this has important implications for an understanding of student learning.

The 'practice' of research is central to the kind of meaning making required in university practices. Street's model further includes a focus on 'identities'. He argues that a student's personal identity may be challenged by forms of writing required in different disciplines. Lave and Wenger (1991:91, 115) also emphasise the idea that learning and identity are inseparable and that 'the development of identity is central to the careers of newcomers in communities of practice' – learning implies 'becoming a different person'. As newcomers to the university, students are 'apprentices' who gradually assemble a general idea of what constitutes the practice of the community.

As apprentice researchers, our novice students become participants in a core academic activity, which enables them to move away from their school-based understandings of knowledge production.

Beyond skills

Organisation of the course

Students are expected to investigate manageable topics concerning how language impacts on our everyday lives and to research and study the 'social factors' in language use. The success of the course depends on intensive teacher input and mediation. Lectures and tutorials are presented on topics relating both to the field of study and research processes. Students work in self-selected groups of four or five students and they are expected to engage in a significant amount of reading on issues relating to language use in South Africa's multilingual society. The course is made up of highly scaffolded materials and readings related to the field, including guided tasks to support each stage of the process.

The course is designed around a fairly conventional set of steps. However, for our first-year students each phase is supported by lectures and class discussions. The phases are as follows:

- Read, think and talk about the field of language issues in South Africa.
- Identify a research question; define aims and rationale.
- Write a proposal.
- Use different research methods (quantitative and qualitative).
- Plan questionnaires, observation and interview schedules.
- Collect and analyse data.
- Interpret and reflect on findings.
- Give an oral presentation.
- Write a final report.

Research begins with questions which drive the process of investigation. This sets in motion a course of action which may finally lead to greater understanding of what has been investigated (Freeman, 1996). We have observed that students soon become challenged in the drive to answer the research questions that they themselves have defined. However, they struggle with the new concepts, with disagreements within their groups, and also with acquiring the conceptual understandings needed to push the process forward.

We describe what is taught in each phase and how students' progress is assessed, mediated and monitored. We focus on teaching issues and reflect on the extent of student learning. Our key concerns relate to languages and to cognitive and academic development.

Language development to promote learning

Halliday and Hasan's (1985) notion of the interacting relationship between language, context and text is particularly helpful in defining the nature of the language that needs to be taught and learnt in the project. This is a 'functional' approach which shows how 'language ... is doing some job in some context' (Halliday & Hasan, 1985:10).

An interesting paper by Derewianka (1990) entitled *Rocks in the Head* describes how Halliday and Hasan's (1985) concepts of 'field', 'tenor' and mode' are used as a framework for putting into practice a whole thematic unit on the study of rocks with a class of seven- year olds. Within any context of situation, the 'field' (the content and subject matter), the 'tenor' (the relationship between the participants in the discourse) and the 'mode' (the form of the language, whether it be spoken or written) interact to produce text. Each phase of Derewianka's project produced language appropriate to that phase. In terms of the 'field', her students became familiar with the technical language relating to the study of rocks. Children produced different forms of written and spoken texts ('modes'). These moved across a range of genres, from simple recounts, personal narratives and field notes to more demanding tasks, such as classification, structuring a written report, writing a 'big book' and giving a final oral presentation. Her description takes the reader through the process: from a class excursion into the countryside to examine rocks, to the presentation of a final report on the project. This helped us to understand some aspects of the language learning taking place in our foundation research course and of the potential of Halliday and Hasan's concept for recognising and advancing the multiplicity of linguistic competencies students need to develop in order to complete the project effectively.

In our project, the 'field' is language study – language issues in South Africa. In terms of 'tenor', learners and tutors take on different roles throughout the project, with each role producing different kinds of language and reflecting different power relations. At various phases, students are learners, researchers, team workers, presenters or 'experts', as were the tutors. In terms of 'mode', students have to learn to use the different genres of spoken and written language required by the range of situations they have to engage with (proposals, abstracts, reports, graphics, questionnaires, interviews, oral presentations, etc). As with Derewianka's project:

> The adopting of these roles aim[s] at empowering the children, encouraging them to see themselves as responsible learners, apprentice learners of the discipline, moving from a tentative grasp of the field towards a more definite, more confident control. (Derewianka, 1990:200)

In this sense, the research project enables our students to move 'beyond skills' both in terms of the genres they need to control, the independence as well as the interdependence they need in order to work with peers, and the responsibilities they must assume in order to compete the project.

Topics and texts that matter

The course lectures include topics relating to language policy issues, language use in different South African contexts, naming practices, literacy practices, code-switching, multilingualism, and language attitudes arising from various factors such as gender, power and ethnicity. These topics lead to questions, such as, 'Is Tsotsitaal a real language?' 'Are names important?' 'Is South Africa's eleven languages language policy viable or feasible?' These and other questions are intended to open up the 'field' for our students so that they recognise their own interests in language in order to draw on their own 'rich and full histories' (Zamel, 1993:35).

Zamel (1995:519) has used the phrase 'strangers in academia' to describe the sense of cultural and linguistic alienation felt by her ESL students at the University of Massachusetts-Boston. We attempt to take this seriously by introducing topics that matter to our students. The fact that students live with multilingualism in their daily lives means that they have greater insight and experience from which they can draw. They too can become *producers* of knowledge.

In the first lectures, we use examples to demonstrate the extraordinary multilingualism that exists – sometimes around 20 languages are spoken in a class of 100 students. These include not only South African languages but also languages from other parts of Asia, Africa and Europe. Their multilingualism gives these students access to languages, communities and cultures not usually available to monolingual English speakers.

Tutorials are devoted to the close study of extracts from a number of research texts. For example, Kay McCormick's (1986) paper entitled *Children's use of English in District Six*, which provides an excellent introduction to authentic research conducted in a South African community. Students are asked to look for questions that motivate the investigation, examine the kinds of data that were collected and analysed, and consider how conclusions were reached. These tasks provide opportunities for intensive and careful reading and the recycling of skills, such as textual annotation, taught previously in their academic literacy module. The topics introduced in this article (attitudes to the relative status of English and Afrikaans in District Six, code-mixing and switching, standard languages, linguistic repertoires, etc.) engender much discussion and debate. The students are not only introduced to sociological terminology but also to research terms (qualitative and quantitative data, research respondents, interviewees, research samples, research findings, etc.).

Other topics include naming practices in their communities. Here students become 'knowers', who are able to relate with confidence the practices in *their* communities, and practices related to *their* social identities and contexts. Another topic, which is based on work in the 'New Literacy Studies' (Street, 1984), focuses on 'literacy practices'. Students read the literacy biographies written by other students and talk and write about their own childhood literacy practices, both oral and written. During this time, students are encouraged to think about possible topics that might be chosen for their own research projects.

Research processes

The proposal

The first major task for students is to produce a proposal that must include a research question, aims, a rationale and reference to the methodology to be used. Sets of questions (taken from Freeman, 1996) have proved useful in providing guidelines for the writing of a new and challenging genre.

> **WHAT?** What is the enquiry? What are the researchable questions? What are your resources? (people, material, cost, equipment).
>
> **WHY?** Why is this topic important? Why is it interesting?
>
> **WHERE?** Where will the research be done?
>
> **WHO?** Who will be the participants?
>
> **HOW?** (research method) How will you collect the data? Will you use interviews? Will you use observational studies? Will you use questionnaires? Will you use a combination of these research methods? How will you analyse it?
>
> **SO WHAT?** Why is it useful, important or relevant to do this study?

A proposal requires clear thinking and succinct, explicit writing. Each question requires careful thinking as students must *identify* the problems and the parameters around which they will want to work. They must generate hypotheses and work out ways to solve the problems they have set for themselves. This is demanding and requires high-order abstract thinking, hypothesising and reflecting (Biggs, 2003; Bloom, 1956; Perkins, 1992) and we carefully support students through the process.

Biggs and Collis' SOLO taxonomy (1982) has been used by teaching and learning practitioners at universities globally to assess how students' performance develops in relation to particular disciplinary tasks. The taxonomy describes the increasing structural complexity in the way students learn in particular contexts, where they can usually see only one aspect of the problem and the task that lies ahead. At first, the students function at a 'unistructural level' or 'multistructural level' (Biggs & Collis, 1982). However, they need to work at a more 'relational level' so as to integrate the 'Who, What, Why' issues and express these coherently and succinctly.

Topics chosen by students are fairly wide ranging. Examples include: literacy practices of street vendors; attitudes to Zulu, Xhosa, Tsonga and other African languages; naming practices in specific communities; the language of Kwaito music, and suchlike.

Designing research questions is also very challenging and tutors must get involved to make sure that the questions are do-able. A poorly-worded question often limits the students' ability to work successfully on the project. The following are examples of research questions produced by students:

> What are University of the Witwatersrand students' understanding of the Love Life Billboards?
>
> What are the attitudes of Wits students towards Tshivenda and Tsonga?
>
> Are African languages under threat as a result of the dominance of English?

Questionnaires

At the next stage, students draw up questionnaires. They learn about qualitative and quantitative forms of data collection and are expected to devise instruments for collecting both types of data. Students' difficulties concern understanding the differences between open and closed questions, categorising the sets of questions, sequencing, selecting appropriate questions, making the questions clear and concise, and so forth. They conduct pilot studies to help them test their questions and identify problems with their questionnaires.

Reading opportunities

In order to strengthen academic literacy, we expect students to read independently to support their own research projects with suitable references. Much of what was taught in the earlier skills-based academic literacy course is incorporated into the final research report, but, as we have argued, the requirements are made more meaningful as they are embedded in the learning experience of the research project. We introduce a number of suitable research articles, which all relate in some way to the field of language issues in South Africa, to supplement the reading of our students.

Working in groups

The research project is a truly collaborative programme in that each student's contribution is needed if the project is to be successful. The workload must be shared and all must help to identify which project the group as a whole can manage. Good leadership is usually required in order to steer the direction of work and to deal with conflict and indiscipline. Some groups work very successfully without clear leadership – these groups adopt a democratic and consensus-driven approach. Others thrive on strong intelligent leadership. However, malfunctioning groups occur every year and in every class, sometimes leading to the complete breakdown of the group. Groups do not function optimally because of a variety of reasons. Often this is because one or two members do not cooperate, disagree about the topic or the approach, do not attend meetings or are absent from class. This has always been a major difficulty and presents a significant challenge for tutors.

In a previous study (Granville & Dison, 2005), we looked at possibilities for getting students to use metacognitive reflection to evaluate the success or otherwise of specific aspects of the course. According to Kitchener (1983), metacognitive reflection goes beyond mere information processing; it concerns awareness of the thinking and learning; it is learning to learn, evaluate and correct the information processing. In this study we concluded that the more *task-specific* questions yielded better responses than did more general questions. One of these questions, 'How easy was it for you and your group to come to a conclusion based on the findings of your research?' yielded the following comments from two of our students (Bongi and Petunia):

> Everyone was involved and interested in the research. We had problems but we managed to overcome them because of good group work. We came

> up with many ideas, which really helped us to be critical when coming to what we had to write.
>
> For me it was difficult because in a group I was having no say. Every time my ideas were objected to by some of the members. And that put me to miss the project because we had different perspectives.

Final research report

Students are required to produce individual work for their final research report although all members of the group draw on the resources of the whole group (the interviews, the analyses and the findings). They are also required to reflect, not only on the meaning of their results, but also on their personal experiences of the research process itself.

We draw on the work of one of our fairly successful student's (Themba's) research report in order to demonstrate what learning we think has taken place and what can be done by an average to good (but not necessarily exceptional) student. The report reflects the work of his group, but the report itself is his own. It does, however, point to some of the successes that can be achieved by collaboration and shared knowledge.

Themba's research report

Research question, aims and rationale

> Our research question was 'What is the status and attitudes of students at the University of the Witwatersrand towards the Tshivenda and Xitsonga languages? The reason for choosing this topic was to find out weather (sic) Tshivenda and Xitsonga are given the same recognition as Nguni and Sesotho languages seeing that Tshivenda and Xitsonga are seen as minority languages. We would like our research to make people aware of Venda and Tsonga and to give them the same respect and recognition that they deserve.

In the example, the student has succinctly described the 'What?' (the attitudes of Wits students to Tshivenda and Xitsonga). Two reasons (the Why?) for choosing the topic are also clearly articulated. To get to this point, Themba and his group, together with tutor support, have refined this question to give clear direction to the project.

Themba's methodology

> The reason we chose the University was because it was very easy access for us to get our information and seeing that it is diverse in terms of students of different races, nationalities and languages. We would also get clear answers about our research that we wanted ... Our sample consisted of thirty-six informants and fifteen interviewees. They are students who spoke Nguni, Sesotho, Venda and Tsonga languages. They were both male and female. We were not very picky in terms of age. Our research is not biased towards any ethnic group ...
>
> ... With the qualitative methods we used questionnaires. We made sure the questions were clear and easy for the students to fill in and there

> were no questions we thought our students could not answer ... With the quantitative data, we asked students to rate the languages of South Africa on a scale of one to ten, the reason for doing this was that we wanted to see where ... Xitsonga and Tshvenda were on the graph ...
>
> We also proceeded to do unstructured interviews with students as we felt there was not enough information to write our research report. The interviews gave us in-depth views on what our students had to say about their languages and we got to understand why their languages were seen as minority languages ... we had to listen attentively so that we could understand what each student had to say ...

The decision-making process for this section makes linguistic and conceptual demands as students must make choices as to what to include or leave out. They must integrate and evaluate the various aspects of the method and make decisions about what would best serve their purposes. These include the selection of interviewees and interview questions that will best elicit the responses they need in order answer their research question.

The report also provides a rationale for choosing Wits students for their interviews. They have selected a range of students from different language groups.

The methodology section requires working with the special language of research and understanding the meaning and application of terms such as 'qualitative and quantitative methods' and 'unstructured interviews'. In the previous extract, Themba displays understanding of the different opportunities and value provided by the different forms of data.

Themba's findings

> From the data we collected and our analysis we found that a huge majority of subjects had negative attitudes towards Tshivenda and Xitsonga. In terms of the pie chart, 80.5% of the students thought that Tshivenda and Xitsonga were low-valued and 11.5% thought that Tshivenda were equally valued and 8.3% were neutral ... In the interviews one of the respondents said (that) Venda and Tsonga were low valued because most of the speakers live in the rural area ... Another said that people associated Venda and Tsonga as uncivilized languages, which shows that some respondents mindsets will not change.

Themba's findings show that he was able to work with the qualitative/quantitative distinction and draw interesting conclusions regarding the attitudes of some of their respondents. There is also further evidence of 'relational thinking' as he makes connections between the various aspects of the findings.

Themba's discussion and analysis

> We thought that peoples' attitudes towards Tshivenda had changed – but little did we know that they have not changed. Some respondents (Tsonga speakers) felt that the attitude of people towards their language was not good as people would disrespect their language and would think they are stupid ... It is sad for the Venda and Tsonga people as they have to code-switch so that they can be accepted into a group but why should they code-switch if no individual is willing to learn their language?
>
> But there were some positive respondents who said that students are proud of their languages which suggests that there is hope for the future as it takes time for people to adjust to change

Themba's discussion and analysis produced surprising findings, which are usually interesting in research, as surprises signal an alternative view on particular phenomena, 'There was little change in respondents' attitudes in the sample and there were unpleasant consequences for this'. There are some higher-order reflections about the consequences of peoples' attitudes to these languages. Themba's group have not only described their data but they have evaluated and made judgements on what they found.

Analysis of data presents a number of cognitive challenges for students. We found it useful to get students to consider their data on three different levels: First, to *describe* the findings; second, to analyse, detect patterns and counter patterns; and third, to provide explanations and interpretation of their findings. Using Biggs and Collis' SOLO taxonomy (1982) we have been able to evaluate the cognitive outcomes achieved by students. Are they simply describing or listing the data, or are they relating, comparing contrasting and seeing relationship between different aspects of the data? Have the students been able to make judgements on the meaning and significance of their data?

Reflection and metacognition

After writing the report, students are required to write reflections on their experiences of the project. This requires metacognitive understanding and produces some interesting reflections. For example, some students discussed the value of the group experience, others mentioned the difficulties experienced while dealing with their respondents in the 'outside world'. Some wrote about the pleasures and difficulties of being involved in 'knowledge production' and about the extent to which they had begun to appreciate how their involvement in the project helped them to read and appreciate the research articles they have to read in other courses. These reflections alerted us to the potential for getting students to engage in metacognition. This encourages students to replay and review what they have done well or badly giving them a conscious sense of how much they have learnt.

Themba's reflections

> We had difficulties in the beginning as we did not know what was expected of us in terms of research. We were very behind as we did not have our data for the deadline, but we got help from our lecturer ... and we were well on the way. We conducted a pilot study and realised that our questions would not work. Then we started all over and then our questions were correct. We collected our data and analyzed it ... The other problem we had was with students who did not want to participate and because of ethics we had to leave them alone ... I learnt to be patient, understanding and to listen to what others had to say ... Our sample was enough as we had many respondents and from that we gained knowledge about their views. Our strength was our sample that was mixed in terms of respondents that were of different race groups, language and countries.
>
> Our weakness were not gathering our data on time. I learned about drawing bar-graphs and pie charts ... It is up to us the youth and students to rectify this problem by implementing awareness programmes for us to ensure that languages do not get looked down upon. We still found out that Venda is more recognised than Tsonga as shown in the bar graph. I hope that our research findings will help other researchers in this field. I want to say thank you to my team members for all the hard work they have done.

Themba's reflection displays a different mode of writing and of understanding. In standing back from the whole process it moves away from the 'academic' kind of discourse to a more personal response. There is an honesty in the self-evaluation that may not normally occur in conventional reporting. Themba's reflection exhibits a different dimension of understanding about the process itself, the struggles with group and the personal learning. It is an honest appraisal of the strengths and weaknesses of the project as a whole. The meta-level reflection has helped him to deepen his understanding of what occurred during the research. This richness of response is also evident in the reflections of many of the other students in their reports. This complies with Brockbank and McGill's (1998) focus on critical self-reflection as a goal of higher-order thinking. A course of this nature constitutes an attempt to enable students to operate on this level.

Thinking and writing

From both linguistic and cognitive points of view, Themba's report displays a clear focus on the main purpose, rationale and findings of the research project. Each of these is a challenge: the abstract requires the language skill and clear thinking needed to distill the essence of the project. He understands the purpose of research and is able to use evidence to support his claims. The work displays higher-order learning and thinking in terms of the processes of research, as well as an ability to grapple with the outcomes. In Perkins' (1992) terms, he has displayed 'epistemological engagement' and enquiry levels of understanding. He understands the need for the different kinds of analyses and comfortably uses both qualitative and quantitative data to deliver justification for his findings. He controls the three levels of analysis taught

on the course, namely, description, analysis and interpretation, and has mastered the specialist language of research and language studies confidently using appropriate terminology (code-switching, respondents, pilot study, etc.). The reflective section displays meta-thinking – an ability to reflect on the process and meaning of the research project as a whole.

Conclusion

Cummins (1996:70) argues that 'language and content will be acquired most successfully when students are challenged cognitively but provided with contextual and linguistic supports required for successful task completion'. The high standard of many of the research reports produced by students reveals their growing ability to structure information from different data sources and integrate and assemble ideas for the purpose of addressing the research question. From our assessment of some of the student writing, it emerges that certain students may have mastered the skill of arranging ideas coherently, but often fall short when required to provide reasons for choosing their research topics and account for their findings. One of the key challenges in the pedagogy of the course is to place more emphasis on learning and language strategies for improving students' ability to explain and reconstruct information. Many students would benefit from a conscious attempt to develop 'language of thinking strategies' (Perkins, 1992:109).

The course set up a recursive cycle of thinking, writing and learning that propelled students into increasingly sophisticated modes of operation.

We conclude that it is possible for first-year students to engage successfully in authentic research. In arguing that a project of this nature moves students 'beyond skills', Themba's report (as well as those of others) demonstrates that the process drives students to higher levels of thinking and more sophisticated language use. As initiates into the academy, they become researchers, and thus begin to develop a new academic identity as participants in the knowledge production process.

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CHAPTER 14

INFUSING ADJUSTMENT ISSUES INTO THE CURRICULUM IN A SCIENCE FOUNDATION PROGRAMME

BETTE DAVIDOWITZ

Introduction

There is a widely held view that 'underlying factors' (National Plan for Higher Education [NPHE], 2001, Executive Summary: 3:2) contribute to retention and efficiency rates at tertiary institutions and that these include affective factors. As Hay and Marais (2004) point out, there is an educational backlog of 'millions of school leavers who are not adequately prepared for higher education'. Being ill-prepared for the higher education (HE) environment affects graduation rates which are indicators of institutional efficacy (NPHE, 2001). The National Commission of Higher Education (NCHE) Report, 'A Framework for Transformation' (NCHE, 1996:32), noted that admission and throughput rates were significantly different for historically white and black institutions. In addition, there is a demand for increased output in the natural sciences, engineering and the health sciences. South African higher education institutions need to address retention and efficiency by adding extra academic development and life skills programmes to their campus life. There are varying approaches in content, aim, outcomes and positioning of these programmes within universities which seek to 'bridge the gap for underprepared students'. Mentoring programmes, skills development programmes and orientation programmes focus on psychosocial and affective factors, while access, bridging, foundation and extended programmes focus on cognitive and academic factors. The underlying philosophy is the notion that underpreparedness is temporary and can be remediated by an appropriate intervention.

While add-on student development programmes allow for very specific skills development, some of the philosophy is criticised for further fragmenting students' experiences of the higher education environment. Instead of being integrated into students' daily lives, these programmes run the risk that the skills that are taught are only poorly connected to the students' actual academic experience. As Tinto (1997) points out, the discourse on retention is largely located in the students' realm and

de-emphasises the role that the educational context plays in promoting retention and efficiency. A further issue is that add-on programmes, focusing mainly on 'at risk' or 'identified' groups of students, may further increase the pressure on these students to assimilate to the higher education environment.

The study reported in this chapter adds to the body of research that investigates the relationship between affective factors and academic performance, including retention and efficiency rates. Several researchers, for example, Case (2007), Honikman (1982), Klagsbrun (1992), Sennett, Finchilescu, Gibson and Strauss (2003) and Woosley (2003), have emphasised the importance of addressing social and emotional factors in facilitating adjustment to the tertiary environment. Baker and Siryk (1989), Malefo (2000), Sennett *et al.* (2003) and Woosley (2003) highlight the role that initial adjustment plays in establishing a foundation for subsequent success at tertiary institutions. Poor adjustment on various levels might precipitate poor functioning in academic, social and personal activities. Honikman (1982), Sennett *et al.* (2003) and Woosley (2003) agree that improved adjustment facilitates overall functioning and that interventions aimed at adjustment, psychosocial functioning and affective improvement need to occur early in the academic career.

Tinto (1997) considered the relationship between the student and the institution and described learning communities and collaborative shared learning experiences where students engage with peers and staff to facilitate commitment to the university. Other studies (Bean, 1985; Davis & Murrell, 1993; Granger, 2002) have underscored the importance of social and academic integration as determinants of attrition. The tenuous nature of the students' relationship to the institution increases the fragile attachment prevailing in the beginning of the campus experience. Furthermore, Case (2007), Jansen (2004) and Sennett *et al.* (2003) have highlighted the sense of alienation some groups of students experience in adjusting to higher education. Students may experience an emotional void by belonging neither to the context of origin nor to the new context of higher education, which is experienced, at best, as a newly acquired pseudo-home to which they try to assimilate at a considerable personal price.

This chapter will evaluate a 'life skills development' programme which rests on the premise that the capacity for life skills, adjustment, coping, managing stress and personal development constitutes affective, and thus 'underlying factors', which can significantly impact on efficiency rates at higher education institutions. In particular, the affective factors the programme aims to develop are: improved adjustment to the tertiary environment, improved ability to cope and manage stress and academic workload, and social and personal development. The programme rests on the assumption that these factors contribute indirectly to the overall academic functioning of students.

General Entry Programme for Science and Skills for Success in Science

In 2005, the Skills for Success in Science programme (S^3) became part of the curriculum for first-year students at the University of Cape Town (UCT) who are enrolled in the General Entry Programme for Science and Skills (GEPS). The GEPS is a foundation programme designed for students identified by the institution as being from educationally disadvantaged backgrounds, and provides an alternative one-year access route for students registering for the BSc degree. GEPS offers an extended curriculum that attempts to take account of poor preparation at school, particularly in Mathematics and Science, as well as the fact that the majority of the target group of students do not speak English as their first language. The aim, over the year, is to identify, select and prepare students with the potential to succeed in one of the programmes in the Science Faculty. According to Wood and Lithauer (2005), students who perform successfully in foundation programmes tend to perform better in later degree studies than students with similar academic profiles who are admitted directly into mainstream programmes.

Courses in the GEPS have the same contact time as first-year mainstream courses. Their aim is two-fold. First, the courses aim to cover about half of the content of the first-year curriculum. Second, the courses aim to build a deep understanding of the concepts through the inclusion of aspects of the particular discipline, which are key to both understanding the nature of that discipline and engaging with it at higher levels. Students are encouraged to engage with the material rather than to depend on rote learning; a strategy which is prevalent at secondary level. The minimum time for a GEPS student to complete the BSc degree is, therefore, four years.

The S^3 programme is infused into the GEPS curriculum and aims to impart generic skills to facilitate adjustment to higher education as well as improving academic functioning. The contribution of S^3 to GEPS is similar to the role of programmes at the Nelson Mandela Metropolitan University (Wood & Lithauer, 2005) and the University of the Free State (Hay & Marais, 2004). The programmes at other universities in South Africa also rely on the assumption that improved self-concept, self-management skills and communication skills, as well as improved support systems, foster social and emotional well-being, thus enabling students to successfully engage with university life and their academic demands.

The S^3 programme is based on the notion that group work has the potential to enhance students' learning (Van Rheede van Oudtshoorn & Hay, 2004). Gatfield, cited in Van Rheede van Oudtshoorn and Hay (2004), demonstrated that group-based interventions generated higher grades for students compared with those based on individual and formal teaching situations. The interactive, participative learning process tends to contribute to improved engagement with fellow students, the academic material and the institution as a whole. Group work also forms part of the teaching practice of delivering the academic programmes, for example, in tutorials, workshops and practical sessions. Therefore, the skills developed in S^3 are essential in the disciplinary context.

The psychologists contracted for the S³ programme conducted weekly small-group sessions with about 20 students per group over the first semester in 2005. Skills were developed in the following areas: adjustment, group work and cooperative learning, coping and stress management, resources on campus, assertiveness and communications, time management, study skills and examination competence. The process of the intervention was experiential and participative, while containing didactic aspects. Students were encouraged to share their experiences, their opinions and any concerns they had. They were also encouraged to present problems and ideas and to find shared solutions using role plays to develop certain behavioural repertoires, and generally make the material as relevant as possible to their current lives.

Aims of this study

Adjustment to university is conceptualised as a multidimensional concept that encompasses four different aspects: personal-emotional, social adjustment, academic adjustment and institutional attachment. It is proposed that this adjustment is mediated by assisting students to develop necessary life skills, increase their self-esteem and motivation, reduce their stress levels, and develop their sense of belonging at UCT. Figure 14.1 represents the conceptual outline of the S³ programme.

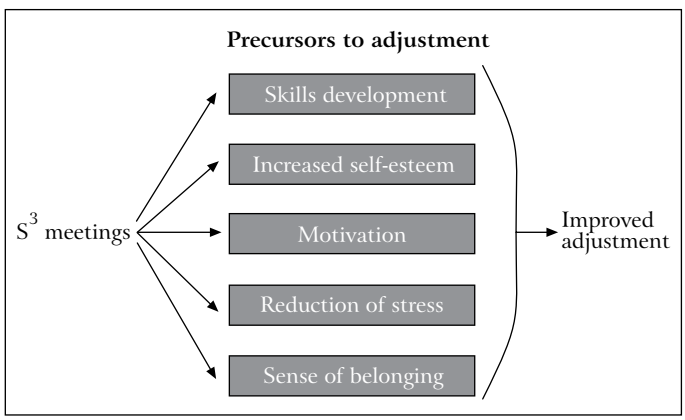

Figure 14.1 The conceptual outline of the S³ programme

The aim of this research was to evaluate the efficacy of the S³ programme in facilitating the personal and academic adjustment of the GEPS students to UCT. The evaluation of the programme took place in two phases, namely in 2005 and 2007.

Methodology

Data was collected in two stages. In the first stage, a self-report questionnaire and focus group discussions were used to evaluate the implementation of the programme in 2005. In order to ensure impartiality, an independent researcher administered the questionnaire and carried out the statistical analysis of the data. She conducted the focus group discussions and analysed the themes emerging from the content. This researcher had previously worked in foundation programmes in the higher education sector and was thus aware of the issues and sensitive to the themes. Data from the self-report questionnaire was analysed using t-tests and analysis of variance, while the discussions from the focus groups were analysed using thematic content analysis.

In the second stage, a number of students who were part of the S^3 cohort in 2005 were interviewed by a second independent researcher at the start of their third academic year in 2007. The interview schedule was piloted with two students and subsequently amended to reflect commonly understood terminology. The semi-structured interviews were audio-recorded and transcribed verbatim. Transcripts were analysed using the Grounded Theory method (Corbin & Strauss, 1990). The three components of adjustment to study in higher education (academic, social and personal adjustment) used by Sennett *et al.* (2003) provided an organising framework for the analysis of the students' views on the effectiveness of S^3 in providing study support.

Samples

The first sample consisted of students enrolled in the GEPS at UCT in 2005 (N = 119). Students were invited to join the evaluation, the purpose of which was explained and their anonymity ensured. At the end of the programme 93 students completed the questionnaire. The mean age of the group was 19 years. There were slightly more males (58%) than females (42%) and most of the group were South African. Over two-thirds (67%) indicated that their first language was an African language and about 30% indicated that English was their first language. Seven of these GEPS students volunteered to take part in the focus discussions.

GEPS students from the 2005 cohort who had successfully entered their third year of study at UCT volunteered to take part in an interview in 2007. An attempt was made to encourage gender balance and representation from different science subject majors. The sample of 20 students included eleven females and nine males.

Data collection

The questionnaire

The following psychological scales, commonly used as assessment tools in psychological practice, were used to construct the questionnaire:

1. **Adjustment**

   The Student Adaptation to College Questionnaire, SACQ, (Baker & Siryk, 1989) is a 67-item self-report questionnaire assessing student adjustment and conceptualises

it as multidimensional. The questionnaire identifies four different aspects, namely, academic, social and personal-emotional adjustment and institutional attachment.

2. **Academic motivation**

   The instrument was an adaptation of a scale used by Muller and Louw (2004) who explored the relationship between students' motivation and the academic environment. This test uses a five-point Likert scale and is standardised to the South African population.

3. **Academic overload**

   This five-item psychological scale by Muller and Louw (2004) assesses the experience of academic workload and uses a five-point Likert scale. It is based on the constructivist learning perspective and measures the match of requirements between student and academic context.

4. **Perceived stress**

   The Perceived Stress Scale (PSS) proposed by Cohen, Kamarck and Mermelstein (1983) assesses the perception of stress. It is a 14-item self-report psychological scale designed to measure the extent to which the respondents 'found their lives unpredictable, uncontrollable, and overloading' (Cohen *et al.*, 1983:387).

5. **Self-esteem**

   The Rosenberg Self-Esteem Scale (Rosenberg, 1979) uses ten items to assess global self-esteem, including depressed affect, anxiety and peer appraisal.

Focus group discussions

The aim of the focus group discussion was to obtain feedback from the students about the S^3 programme. Two focus group discussions were held at the end of the first semester of 2005. The sample was small (N = 7), probably due to the focus group discussions being scheduled close to the mid-year examinations, which created significant time constraints for students. Students were asked to speak about their experience of being first-year students at UCT, the main stressors they faced and how the S^3 programme had or had not helped them deal with the stressors. They were asked to discuss the possible skills they developed through their participation in the programme and what recommendations they might have for future programmes of this kind.

Interviews

As part of a study on graduation rates in the Science Faculty, students who registered in the GEPS programme in 2005 were interviewed about their overall experiences at UCT at the start of the academic year in 2007. It could be argued that these students are the 'success stories' of GEPS in that they have successfully completed two years at university.

Results and discussion

While the S³ programme was not compulsory, students were strongly encouraged to participate and the overall attendance was over 80% despite some sessions being held during the first lecture period of the day.

Findings from the questionnaire

The self-report instruments measured the following variables: adjustment (personal-emotional, social, academic and attachment to university), perceived stress (perception of unpredictable and uncontrollable life), academic overload, motivation (intrinsic and extrinsic) and self-esteem (depressive affect, anxiety, and peer appraisal). This chapter will report only on the qualitative aspects of the findings from the questionnaire. A full account of the evaluation of the implementation of S³ in 2005 has been published elsewhere (Davidowitz & Schreiber, 2008).

Overall, students showed high levels of intrinsic motivation, which is considered to be a central psychological construct in academic success (Graham, 1989; Granger, 2002). Intrinsically motivated behaviours are reinforced by internal consequences that are experienced as rewarding (Muller & Louw, 2004). At the same time, students' scores were particularly low on the personal-emotional subscale of adjustment. They had difficulties with intra-psychic states, resulting in emotional distress and concomitant somatic problems. The behavioural correlates are anxiety, depression, fewer coping mechanisms, a conflicting dependence on parents or the home environment and greater emotional reliance on others, and decreased mental or physical well-being (Baker & Syrik, 1989). Perhaps this cohort located any difficulties they might have experienced within their own capacities and internalised the distress, rather than locating the difficulties outside of themselves, in their relationship with the institution or in the institutional context.

The SACQ institutional attachment subscale was high, which indicates that the sample experienced a relatively high degree of commitment to their studies in general and to UCT in particular. Sennett *et al.* (2003) found similar results with students at UCT and raised questions around the development of a pseudo-identity. As suggested previously, students might tend to internalise difficulties rather than locating difficulties in their environment, thus preserving a high institutional attachment. In addition, a high score on this institutional attachment subscale is associated with reduced attrition (Baker & Syrik, 1989). Attachment to the institution is similar to the central concept in the student integration and attrition models of Tinto (1997) and Bean (1985), where concepts similar to attachment underscore overall adjustment and retention.

High levels of academic overload have a negative effect on academic performance (Agar, 1990; Muller & Louw, 2004). The results on academic overload and perceived stress indicated that students felt that there was a poor fit between their ability to cope and the demands of the higher education environment. Students reported that they felt overloaded in terms of the demands made on them, which is also reflected in the

results on the personal-emotional adjustment score and underscores this emotional distress. This finding should be seen in the context of students' enrolment in an extended programme which has a measured pace. While it has the standard lecture and tutorial time, the academic content is half of the traditional load of mainstream first-year courses. The finding on academic overload requires more investigation. It might highlight the students' experience of their courses as requiring a high proportion of quantitative work or the level of underpreparedness with which the students enter university.

The overload and stress results are in line with the low scores on the personal-emotional subscale and might indicate that, while the sample was well attached to the university and had high levels of intrinsic motivation to succeed, they found themselves in distress over the demands made on them. Studies by Hay and Marais (2004), Malefo (2000) and Sennett *et al.* (2003), suggest that underprepared students face particular challenges and experience high levels of stress at university.

In terms of correlations with adjustment, students who were well-adjusted, namely, those who indicated that they coped well with the academic demands and were comfortable with the academic environment, felt that they coped well with the interpersonal-societal demands of campus life. They felt low psychological distress and were committed to UCT. These students showed a high level of self-determined behaviours, experienced low levels of stress, showed low levels of depressed and anxious affect and enjoyed high peer appraisal. Students who felt in control of their lives also showed high self-determined behaviour, low levels of depressed and anxious affect and enjoyed high peer appraisal. In terms of correlations with self esteem (levels of depressed affect, anxiety and peer appraisal), students with high levels of self-esteem tended to have high self-determined behaviour. This is in line with other research which suggested that well-adjusted students who are satisfied with their academic adjustment present with lower stress levels and lower emotional distress (see review in Baker & Syrik, 1989). These results suggest a strong relationship between overall well-being and adjustment and it can be surmised that these factors contribute indirectly to academic adjustment, and by extension to academic functioning. It is pleasing to note that the S^3 programme appears to have long-term benefits as shown by the responses from interviews with senior students reported later in the chapter.

Focus group discussions

The focus group discussions yielded rich data and were valuable in that they allowed the students' voices to emerge.

The skills that the participants found useful were time management, dealing with stress and coping with the demands at UCT, acquiring study skills and developing competencies with writing examinations, communication and group work, and awareness in dealing with different people in group settings, such as tutorials. It emerged that many of these skills intersected and were not learnt in isolation. The following comment illustrates some of these themes:

> I used to struggle to work on my own. Like tutorials I used to try on my own, didn't want to ask others for help and ended up not finishing work or else I'd see if I could copy it from someone else and see if I can understand. Then she [the facilitator] said you must ask and form study groups ... I formed a study group. It really did help me.

Another comment illustrates the participant's experience of learning to deal with different people in a new environment:

> Adapting to the new lifestyle. You have to consider other people's backgrounds ... where they come from ... certain things you may not like because of where you come from but you have to accept.

The facilitators were described as helpful, approachable and friendly, making the students feel very comfortable and relaxed in the groups. The group members would openly share their experiences and discuss any difficulties they experienced. Participants felt that the facilitators were good listeners and were qualified to assist them with any difficulties that they experienced. They said that the facilitators:

> Made you feel like you could talk about anything; she listened even when people said stupid stuff.

All participants said that the most valuable aspects of attending the meetings were learning useful skills and the group experience. The S^3 programme gave them opportunities to share their experiences and difficulties with other first-year science students and learn from others. In the meetings their feelings were normalised, which resulted in their realising that others also had similar experiences, and were there to listen to and assist them with difficulties they experienced. Students said that they preferred to have the meetings early in the morning even though they complained about having to wake up early. Their participation in the meetings gave them the motivation and energy for attending classes the rest of the day. They could also practise what they had learnt in the meetings, in their lectures.

Participants in the focus groups agreed that the S^3 programme provided a useful service. It facilitated their adjustment to UCT and helped them cope with the daily stressors of being a first-year student, for example, managing their academic workload (identified as their main stressor). They recommended that all first years attend the meetings in subsequent years. In addition, the participants discussed how helpful it was that the sessions were integrated into their timetable and were part of their daily experience. The following comment illustrates how a student made use of the sessions and applied the experience in his/her engagement with the lecturer:

> When you are here [S^3 meeting], you get something to uplift your spirit, whereby you can go through the day. ... you learn something that you use to your advantage ... it's early and the lectures are still ahead, then (in the lectures) you are not afraid to ask questions.

In terms of the overall experience of participating in the S^3 programme, the participants said that they thoroughly enjoyed attending the meetings. They referred to the S^3 meetings as 'a break in the day' and a 'must' for all students.

Senior undergraduate students' views on the S³ programme

In addition to providing positive feedback about GEPS, the vast majority of the interviewees were positive about their S³ experiences. There were three perceived strengths of this programme. In the students' own words these strengths were: confidence building, sharing views on personal problems and strengthening of study habits.

Half of the students said it helped in confidence building:

> Initially I was not trusting myself. I thought I would not make it. One thing they were actually pushing there [S³ sessions] was the idea that no one is actually stupid.
>
> How to handle things at the university such as asking for help, attendance at lectures and tutorials, and using accepted complaints procedures.

A peer provided an example of a strategy to increase confidence when faced with a number of homework exercises:

> I still use their way of trying to do sums. They call it, "eat the smallest frog first." Try to start with sums that are easiest to sort out, to gain confidence and momentum, and then move to something else. I used to pick them randomly, and got frustrated.

A similar proportion of students emphasised the value of sharing of personal problems, being supported by the group and realising that others 'felt the same':

> It was good. She [the facilitator] got us to talk about what problems, what stresses we had. Besides school, what else do you have on your plate? It was helpful to have a chance to talk about it, and there were people who felt the same way as you, so you can discuss it and you can complain together.

Those students who were negative about the S³ experience, expressed sufficient self-confidence and an individualistic socialisation pattern, as is apparent from the following quote:

> There was the S³ course. I don't think it helped me. I thought: Am I sitting here for 45 minutes? Can this end, please? I am not a groupy person, I didn't really like the rest of the students in my class.

It is striking that even those who objected to the S³ sessions acknowledged that they were glad that these same sessions made them aware of the counselling services:

> She [the facilitator] explained that if we needed someone to talk to, some professionals, she was there, she explained all the resources available.

Some of these students did make use of the psychological assistance services.

Half of the interviewees emphasised the study habits they acquired from the S³ sessions. This involved the time planning, effective study concentration, and writing summaries. These are some illustrative quotes:

> They talk to you about that you are supposed to plan. You know, if you want to go out on Friday, do your work during the week, make sure everything is done before you go out, and don't take any crap from your friends. For me S[3] was just helping me with my schedule, not really helping with problems.
>
> I also learned about studying, about concentration. I knew that I couldn't sit down for two hours straight reading a textbook. The lady who conducted the sessions said that you can only concentrate for 30 minutes. So after 20 minutes, take a break. I used to feel bad about standing up. I thought you should be studying, come on! You can only concentrate longer when you are doing a tut, writing and practicing, or something, not sitting and studying. That is the best thing that I learned in S[3].

Several students indicated that the confidence building and strengthening of study habits, which may not have seemed immediately applicable in the first year, were put to good use in subsequent years when more of an independent study approach was expected.

> And in the second year I applied those things they [the facilitators] told me to do, like plan your schedule, go to your lectures everyday, ask for help, don't be shy. Because I was shy, I couldn't ask for help so they said ask for help if you don't understand, go to tutors, do the hot-seat, so I did that last year, and it kind of worked.

Limitations of the research

While the research instruments had been used in South Africa before, not all were standardised to South African student populations. In addition, reliability and validity always pose potential problems. The reliance on self-report scales poses potential risks regarding misinterpretation by students.

A serious limitation in the interpretation of the results is the lack of pre-intervention data. Given that numerous variables can influence the data, any comparison with aggregated academic results from previous years is fraught with difficulties. It is extremely difficult to measure the efficacy, and thus establish a direct link between the intervention and outcome of this sort of programme, as it competes with numerous other variables which could have impacted on the students' experience and performance, especially in the beginning of their first academic year.

Conclusions

The findings support the assumption that improved affective factors correlate with improved overall adjustment and academic functioning. The psychosocial variables, which the programme aimed to develop, are significant predictors of adjustment and academic performance. Thus, by improving adjustment, coping with stress and managing the workload, students improve their academic adjustment and functioning. The responses to the questionnaire suggest that the GEPS students have high levels of intrinsic motivation and are committed to their studies and attached to the goals of

UCT; nevertheless, they experience their studies as provoking anxiety with relatively high levels of perceived stress.

This study supports the notion that psychosocial development of students needs to be integrated into students' academic lives and should be located within their daily experience of themselves at universities. The evaluation of this programme generates encouraging results regarding the efficacy of the intervention which extend beyond the first year of study. This programme seems to have enhanced the students' experience of and adjustment to UCT and by extension possibly enhanced their academic functioning and performance. Further research is required to illuminate the link between affective factors and academic performance.

More programmes of this kind ought to be accessible to more students across the higher education sector. While the discourse on student retention and efficiency rates focuses largely on internal factors, higher education institutions need to reflect critically on their role in providing an enabling context. Based on this research and positive feedback from students, the original S^3 programme has been extended. Since the beginning of 2008, participation of personnel from the Centre for Higher Education Development has made it possible to introduce sessions focusing on generic skills such as language development, information literacy and career management skills. A part-time student development advisor has been appointed in the Science Faculty and will investigate ways to extend aspects of the S^3 programme to the mainstream cohort in future.

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CHAPTER 15

LECTURERS' AND STUDENTS' REFLECTIONS ON A BILINGUAL PROGRAMME

SANDISO NGCOBO

Introduction

The high failure and drop-out rates among the majority of African students in tertiary institutions in South Africa has, among other reasons, been attributed to the use of English, typically the second language of students, as the main medium of instruction. According to a report by Macfarlane (2007), this notion has been confirmed by students in a study conducted jointly by the Human Sciences Research Council (HSRC) and the Council on Higher Education (CHE) among 3,328 students who dropped out of seven universities between 2000 and 2002. An overwhelming 77% indicated that difficulty with the language of instruction at their institution was the reason for their withdrawing. These findings could suggest that the introduction of mother tongue instruction (MTI) would be useful and welcomed by both students and various stakeholders in education. Such a move might not prove difficult to implement given that the Language Policy for Higher Education (RSA. Department of Education, 2002) requires the development of African languages as media of instruction. Moreover, many institutional language policies are aimed in this direction.

Nonetheless, various studies on the role of African languages in education and higher domains of society (Dalvit & De Klerk, 2005; Makhode, 2005; Ngcobo, 2001) have revealed negative and ambivalent attitudes. For instance, Makhode reports that the ministerial committee established to advise on the development of indigenous African languages as media of instruction in higher education found that there is a strong 'preference for English instead of African languages in all the formal sectors of society, both in private and public' (Makhode, 2005:4). This suggests that in South Africa the relationship between African languages and English is diglossic. In this respect, Fishman (1977) defines diglossia as a situation in which two languages are used differently in the community; one in formal settings and the other in informal settings. The challenge is then to find a way to bring it to the society's attention that the issue is not entirely about language and that cognitive, affective and social development skills will contribute to success across a wide spectrum (Webb, 2002, 2004).

In light of the continued academic issues facing the country and the amount of research pointing to the benefits of MTI, there is a need to deepen a discussion on 'attitude change.' Various national and international studies (Cummins, 2005; Heugh, 2005; Ramani, Joseph & Modiba, 2007; Shembe, 2003; Webb, 2004) testify to the positive effects of MTI on second-language achievement and educational development. Regarding attitudes, Triandis suggests that one of the ways in which they can be changed is:

> [by] first changing the cognitive component (e.g. with new information), the affective component (e.g. by pleasant or unpleasant experiences in the presence of the attitude object) or the behavioural component (e.g. by norm or behavioural changes). (Triandis, 1971:142)

Thus intervention programmes that explore the use of mother tongue as a resource to teach critical skills in higher education seem appropriate at foundation or first-year level. Such skills would inevitably include academic literacy and communication proficiency since these have been identified as major factors that affect particularly first-year English Second Language (ESL) students' academic performance and thus retention and progression rates (Van Dyk, 2005; Weideman, 2006). It is hypothesised that the role of an African language (isiZulu) in higher education could be favourably viewed if used together with English, and particularly if the experience is considered beneficial in facilitating teaching and learning.

Such an approach addresses a weakness in previous attitudes studies in that they have not been conducted in tandem with a programme that utilises a home language as medium of instruction. This approach has the potential to enable respondents to base their assessment on practical experience rather than emotions alone. Hence, the study provides a better understanding of attitudes towards the role of African languages in education. Moreover, some of the essential partners (ESL lecturers and their students) in the implementation and the acceptance of language education policies and programmes have either been ignored or investigated independently from each other in language attitudes studies.

On the one hand, language lecturers' views are critical due to the fact that their formal and informal language learning experiences can have a powerful impact on their beliefs (Johnson, 1999, cited in Zeng & Murphy, 2007:1). If, for instance, language lecturers who are ESL speakers developed their English competency in an environment that emphasised native speaker competency and English supremacy, they are unlikely to support the use of students' first language (L1). On the other hand, university students are considered old enough to make decisions and to hold certain views about their education. For this reason their contribution is equally important. The new positive experience with a primary language in education could influence these beliefs in both groups.

Project setting

The Mangosuthu University of Technology (MUT) in Umlazi township, south of the city of Durban, South Africa, forms the site of this study. Umlazi township is a residential area historically and dominantly occupied by Africans who are mostly isiZulu speakers. MUT was initially established to cater for the tertiary education needs of African students only. Despite new policies that emphasise integration across all spheres of society, the majority of previously black educational institutions, such as MUT, tend to remain black in terms of student enrolment and language used socially. It is for this reason that the reported study sought to utilise the students' familiar or primary language (the language used most often) (Webb, 2004) to enhance the teaching of academic literacy and communication skills that are often taught only in English. IsiZulu was the only language paired with English due to its dominance on campus (at my estimation, ±90%), in the province of KwaZulu-Natal (81%) and nationally (23.8%) (Statistics South Africa, 2003).

Participants

The lecturer sample comprised ten respondents taken from the staff component of eleven lecturers who facilitated the Communication and Academic Literacy Skills module for engineers at foundation level. This was considered a significant sample since it is unusual to have so many language lecturers teaching the same group of students at one university. The student sample comprised three hundred respondents randomly selected from a group of about five hundred students registered in the first semester of 2008 for the Extended Curriculum (Degree) Programme (ECP) in Engineering.

Instrument design

In order to investigate the goal of the project I had to design and implement two research instruments. First, there was dual-language instruction (DLI) teaching and learning material (also referred to as a bilingual programme or a study guide). Second, there were two questionnaires, one for students and the other for lecturers (see Appendices 1 and 2).

Dual-language instruction material

The study developed gradually over four semesters in the period 2006 to 2008 and piloted teaching and learning materials that used both English (65%) and isiZulu (35%) to present content for a course in communication and academic literacy skills that previously had been presented in English only. The view of literacy that informs this course is that it should not be limited to what happens in classrooms; rather, it should include the social nature of literacy (Helmberger, 2006; Weideman, 2006). This view is preferred because it extends literacy to include the communication skills that ESL learners need to develop in order to be able to operate effectively in a range of formal and informal situations within the multilingual society of South Africa. For these reasons an integrated approach had to be adopted in the organisation of study

guide material. I agree with Ngwenya that the integrated approach at university level is necessary as an alternative to apartheid education in schools because it (apartheid education):

> [t]ended to leave many students' English competency grossly inadequate, through its emphasis on rote-learning such as parsing of words and sentences and memorization of facts for regurgitation in tests and examinations at the expense of understanding and critical thinking. (Ngwenya, 2006:23)

As a result, communication skills in this study were integrated with the academic literacy skills that students require in their content subjects while using isiZulu in order to determine the impact on the overall academic performance of students. Moreover, I wanted to determine whether or not the approach would be perceived favourably by the respondents.

Thus, the study investigates the sociolinguistic dimension of the DLI programme. Lee (2002) aptly maintains that the investigation of language attitudes within a bilingual programme can essentially be ascribed to the fact that on the one hand, various types of bilingual education programmes often make implicit assumptions about the kind of language situation that exists in a given community and about the kind of language situation that ought to exist in that community. On the other hand, the assessment of language attitudes provides an indicator of current community thoughts and beliefs, preferences and desires. The investigation of language attitudes, therefore, gave the participants the opportunity to verbalise their language preferences after participation in the DLI programme. Their responses were then used as an indicator of whether or not the project succeeded in its set objectives.

Questionnaire

According to Cohen, Manion and Morrison (2001), surveys are useful in gathering data aimed at describing the nature of existing conditions. More specifically, Johnson (1992) and Nunan (1992) assert that survey methods are suited to investigating a wide variety of linguistic issues including language attitudes. Therefore, in an endeavour to investigate the impact of the DLI study guide on biliteracy, bi- or multilingualism and language attitudes, two questionnaires were used – one by lecturers and the other by students.

The questionnaires contained both closed and open-ended questions. Closed-ended questions required respondents to indicate their opinions by locating their response on a rating scale, as in the Likert-type multiple-items scale (Likert, 1932). The scores for the items ranged from a minimum score of 1 to a maximum score of 5, arranged from strongly agree, agree, neutral, disagree, to strongly disagree.

In another section, open-ended questions were used to enable respondents to have maximum freedom to express their views in their own words. This was meant to offset any bias there might have been in closed-ended questions (Fasold, 1984:192).

The students' questionnaire was worded in both isiZulu and English throughout. In the same vein, students were permitted to respond in any or both languages. This was

to ensure that the questions were understood as intended, and so to give credibility to the findings. However, the lecturers' questionnaire was in English only since they were believed to have an adequate command of the language they were employed to teach.

Conducting the research

The research tool was a self-administered paper-based questionnaire. Prior to administering it, the tool was piloted using a sample of 60 participants. The teaching and learning materials were developed over a period of three semesters and underwent a number of revisions.

Some of the student questionnaires were given to lecturers to administer in their respective classes. Others were personally administered by the researcher after negotiating time with the lecturers concerned. Lecturers' questionnaires were handed to them in person.

Results and analysis

The purpose of this section is to analyse the data obtained and to provide the results of the study. The approach is to focus on pertinent themes and issues and to compare the responses of lecturers with those of students. Hence, related questions are discussed together with the focus on study goals.

Students' profile

The majority of the 300 students surveyed (69%) were in the age group 16 to 19. This is consistent with the age group that would have been in Grade 12, the last year of schooling, in the previous year. Owing to financial and other social problems, not everyone is able to start higher education immediately after Grade 12. This explains the high number of students in the age groups 20 to 24 (29%) and 25+ (2%). The aim in requesting this information from participants was to assess whether age had any influence on language attitude. It would appear that this variable did not have a notable impact.

The student sample had a fairly equal gender distribution of 59% male and 41% female. The slight male dominance could have resulted from the fact that engineering has historically been associated with males.

The majority of students (94.9%) had isiZulu as their home language, while 3% were isiXhosa speaking, 1% Tshivenda speaking and 1% siSwati speaking. Three respondents did not indicate their home language. The dominance of isiZulu-speaking students was expected and served to confirm the general dominance of isiZulu in the institution, the province and the country. The results are a true reflection of the student population of the institution.

It is because of the dominance of isiZulu as a primary language in the institution that teaching and learning materials were only in isiZulu. However, this was not favourably received by some of the respondents who felt that it was unfair to use isiZulu when there were speakers of other African languages in the programme. This feeling of

discontent is consistent with findings by Dyers (cited in Dalvit & De Klerk, 2005). It could be important to gradually add other languages in future depending on demand and the availability of resources. This would augur well for the recognition of all languages and the promotion of multilingualism in the institution and the country at large. Of the students, 86% indicated that they had completed their schooling in former black schools, whilst the remaining 14% had been to multiracial schools.

Lecturers' profile

The majority of the lecturers (8 out of 10) were over the age of 40. Of the remaining two lecturers, one was in the age group 30 to 35 and the other in the age group 36 to 40. In this small sample there were more females (7) than males (3). The home-language profile indicates that the majority (6) of respondents were isiZulu speakers while there were three English first-language speakers and one seTswana speaker.

The dominance of ESL speakers among lecturers suggests that they were able to identify with the challenges often experienced by ESL learners, whereas their home language (isiZulu) would enable them to refer to the information in the material and then to explain it to the students in the students' home language. This would ensure that students understood the subject matter presented in English. However, in the case of lecturers not proficient in isiZulu this was not expected to be a problem as students would have noted the concepts and examples on their own to facilitate their understanding. The use of an African language in the teaching and learning material was meant to facilitate students' understanding rather than to compel lecturers to teach in both languages.

Research goals

As mentioned, the goal of the research was to examine the impact of a bilingual programme on biliteracy, bi- or multilingualism and language attitudes as reported by students and lecturers. The findings that follow are based on percentages of each response on a scale of 1 (strongly agree) to 5 (strongly disagree) for the selected questions. These are discussed with reference to the open-ended responses in an attempt to assess consistency in the responses. The responses from both the students and the lecturers are discussed together to enable a comparison. Each of the three research goals is named before the analysis of findings is explored.

Biliteracy

Biliteracy is viewed as literate competencies in two or more languages, to whatever degree, for communication purposes in education and society (Dworin, 2003; Hornberger, 2003). The first four questions asked the students to assess the effectiveness of the use of isiZulu in the guide. The results indicate that the majority (86%) of students felt that they benefited from the mixing of an African language with English in the guide. They were also generally satisfied (87%) with the quality of the content provided. The lecturers' assessment (80%) regarding students' appreciation of the use of their primary language concurred with students' satisfaction with this approach (86%). These findings are confirmed in the open-ended responses:

> It helped us to develop our understanding about our mother language and other languages and we also experienced more words which we were unfamiliar with them.
>
> It improves the language of English and helped me to develop competence in the style of thinking required in my content subjects.

The students' positive responses are consistent with the study's hypothesis that students would relate to and benefit from this kind of bilingual programme. The guide provided them with a vehicle to do what they generally do during their learning: to draw from their first language in order to assimilate information presented in a second language. Moreover, during their schooling they would have been exposed to what is known as code-switching (CS), which is the alternate use of two or more languages in the same discourse, sentence, utterance or conversation (Myers-Scotton, 1993; Poplack, 2004). Moodley (2003) points out that according to research conducted in the school environment around Africa it has been demonstrated that CS is a communicative resource that allows educators and learners to accomplish many educational and social objectives. This suggests that the majority of African students who went through this type of supportive education find the transition to English-only medium of instruction at pre-university and first-year level quite sudden and traumatic. Failure to cope with the trauma leads to underachievement, low throughput rates and an alarming drop-out rate.

The students' views found support from the majority of lecturers (8) who believed that the use of students' primary language in the English class enhanced students' interest during lectures. However, when asked to indicate the effectiveness of the guide's approach in respect of their teaching, the lecturers appeared to be divided. While five agreed that the guide resulted in effective lecture delivery, two were not sure and three disagreed. It was however not surprising to discover that those who agreed as to the effectiveness of the guide in teaching were first-language speakers of isiZulu. This led to the assumption that the guide probably presented the approach they normally adopted in their classes to assist their students in that they would code-switch from time to time.

The next set of questions was meant to enable participants to indicate the effects of the dual-language programme on English acquisition. The majority of students (96%) felt that the guide enabled them to understand and use English better. They claimed that the guide developed their desire to continue learning English (84%) and also enabled them to develop their English vocabulary (87%). They were also consistent in their responses to open-ended questions:

> I learnt to understand different meanings.
>
> It helps most of the learners especially those who are struggling in English, who do not have the base on it.

Of the lecturers, seven agreed that the use of isiZulu contributed to English literacy. Their responses to the suggestion that the use of isiZulu retarded the development of students' English showed that the majority (7) disagreed. In keeping with this

response, nine of the lecturers also disagreed that the use of isiZulu during the English lecture could have resulted in language confusion. Instead, lecturers evaluated the guide positively, even in their open-ended responses:

> The translated explanations in isiZulu are useful.
>
> The learning material is relevant to students' present and likely future needs – at university and in the workplace.

The next set of questions aimed to establish whether the use of isiZulu in the guide impacted on students' participation in class. The assumption was that most students would previously not have participated in an English class for fear that they might make embarrassing grammatical mistakes. With the use of a DLI guide, an overwhelming majority (73%) indicated that they felt free to express themselves in a bilingual class.

The question on the use of language in the lecture room revealed that the majority of lecturers agreed that students tended to use more of their home language and less English. It was interesting to note that despite what lecturers might have viewed as negative (that students used their home language in the English class) nine of the lecturers believed that the use of isiZulu created a good rapport between them and their students. Moreover, as previously indicated, it contributed to the effective learning of English.

Bi- or multilingualism

The terms bilingualism and multilingualism are both understood to refer to situations, such as often found in South Africa, in which people use and are exposed to two or more languages in their everyday lives. The majority of students (80%) felt that the use of their primary language in the teaching of English and literacy skills enabled them to think critically about the relationship between different languages. They equally showed this awareness about multilingualism when they expressed their reservations about the fact that only one African language was used, as indicated in their open-ended responses:

> If you include Zulu only what about the guys who are not Zulus.
>
> It used different languages. It helps people like me who need to use this guide more in future.
>
> To speak and respect other languages.

At the same time, while most lecturers felt that the piloted DLI material broadened their perspective on bi- or multilingual education, they also had some reservations about the use of an African language during English classes. These sentiments were evident in their open-ended responses:

> It is a move in the right direction to help students understand abstract terms and concepts to enable them to improve both their English and isiZulu competence and academic achievement.

> Not all students benefit from the use of isiZulu since it is not their first language. At the same time though, the role of isiZulu to teach English cannot be overlooked. It also helps the non-isiZulu-speakers to learn the basics of the language.

The positive views with regard to bi- or multilingualism are consistent with the finding made by Gómez, Freeman and Freeman (2005) in the United States. They indicate that DLI programmes have raised the status and importance of languages other than English. Students see great value in knowing more than one language. This bodes well for the preservation and maintenance of isiZulu in South Africa.

Language attitudes

The working definition of the concept 'attitude' adopted in the current study is that it is 'a feeling, reaction or emotional disposition towards an idea, concept or phenomenon' (Batibo, 2005:97). Along similar lines, this survey of language attitudes aimed to establish whether the respondents react positively or negatively to the phenomenon of bilingual education within which an African language is used alongside English in a higher education context. To this end, there were questions that were meant to establish how the bilingual programme had enabled the participants to begin to value the role of the home language in education.

The majority (77%) of students felt that through the use of the DLI guide they learnt to value the role of their home language in education. In addition, 48% felt that the programme provided them with opportunities to develop their home language vocabulary. Upon scrutiny of respondents' school background, it was not surprising to note that 22% of the 48% had attended former model C schools where African languages could often be taken as a second or third language. The rest of the students (52%) who felt that the programme did not develop their isiZulu vocabulary were assumed to be quite proficient in isiZulu because they had developed it both at school and at home. Open-ended responses were consistent with the closed-ended responses:

> I have learnt a lot because what I did not understand in English was written in Zulu and *vice versa*.

> It prepares me for future situation and even more on my career course.

> To be able to communicate better in two languages.

The same sentiments were expressed in the lecturers' open-ended responses to the question of whether they would recommend this type of teaching material for other courses or content subjects. The majority of lecturers responded in the affirmative, while only three responded in the negative. This is a sample of their responses:

> Yes. It will help both lecturers and students respect isiZulu as a language of academia.

> No. I don't think that the return to the translation method of teaching language has benefits for mastering the target language. Of course the

teacher, if s/he knows the learner's home language can use it for illustrative purposes, but to teach a language through another may not be beneficial.

Together, the responses from learners and lecturers were taken as support for the development of and a high regard for the role of African languages in education and society.

Discussion and conclusions

The findings of the study indicate participants' positive language attitudes, as well as support for the use of African languages in higher education. The positive attitudes are attributed to the fact that the respondents based their responses on their immediate experiences and perceived benefits of the use of isiZulu in the teaching and learning of academic literacy and communication skills.

It is worth noting that the bilingual programme was made possible by the fact that the setting of the project (MUT) has one predominant African language (isiZulu) in a country with nine official African languages that all need to be developed. In the spirit of multilingualism it would have been ideal to use more than one African language. However, due to constraints of time and resources this was not practical.

Since the study was undertaken during the teaching of the English language, it was important to determine how the subjects would perceive the use of isiZulu because of the controversy regarding straight-for-English and the use of a first language as a resource. Interestingly, both students and lecturers found value in the use of a first language to facilitate the teaching and learning of a second language.

The generally positive views regarding the use of an African language in higher education are pleasing. It is hoped that they will encourage colleagues in various departments and institutions of higher learning to begin to find ways to implement a multilingual policy in education as a possible mechanism to address current problems. Further studies could also assess participants' views in relation to their academic records and even beyond first-year level.

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Appendix 1: Student questionnaire

SECTION A: OKUMAYELANA NAWE/PERSONAL DETAILS

Isigaba sokuqala semibuzo sihlose ukuthola ulwazi mayelana nomfundi ophendula imibuzo yalolucwaningo. Khombisa ngophawu oluwumbaxa(X).

The first set of questions is meant to gather some background information about a student who answers this questionnaire. Mark with a cross (X) where possible.

1. Ubudala/Age

16-19	20-24	Over 25

2. Ubulili/Gender

Male	female

3. Ulimi lwami/Home language

IsiZulu	isiXhosa	Tshivenda
SiSwati	seSotho	Other

4. Uhlanga lwabafundi esikoleni owagogoda kulo izifundo zikamatekeletsheni.
The racial composition of students from your last high/secondary school.

Multiracial	African
esixubile	Abomdabu

SECTION B: BILINGUAL LEARNER GUIDE EVALUATION

Cross (X) ONE of the options at the end of each statement that represents your most honest response to the given statement. The letters stand for:

Phambanisa umdwebo (X) ekupheleni kwesitatimende ngasinye ukutshengisa umbono wakho weqiniso ngokuthi ukhethe uhlamvu olulodwa. Izinhlamvu zimele lokhu:

A= *strongly agree/ngivuma ngokungananazi*; B = *Agree/Ngiyavuma*; C = *Not sure/Angizazi;* D= *Disagree/Angivumi*; E = *Strongly disagree/Angivumi sanhlobo*

5. I found the mixing of languages in the guide suitable for my style of learning.
Ukuxutshwa kwezilimi encwadini kuyazwana nendlela engifunda ngayo.
..... A B C D E

6. The guide enabled me to understand and use English better.
Incwadi yenze ngikwazi ukusiqonda kalula isiNgisi. ..... A B C D E

7. I experienced effective learning.
Ngifunde ngedlela egculisayo. ..... A B C D E

8. The guide helped me develop competence in the forms of reading, writing and thinking required in my content subjects.
Ngikwazile ukuthuthukisa amakhono okufunda, ukubhala nokucabanga okudingakalayo ezifundweni zami. ..... A B C D E

9. I felt free to express myself in class.
Ngizizwe ngikhululekile ukuphawula egunjini lokufunda. ..... A B C D E

10. I had opportunities to develop my English vocabulary.
Ngithole ithuba lokukhuphula ulwazi lwamagama esiNgisi. ..... A B C D E

11. I was able to think critically about the relationship between the different languages.
Ngikwazile ukucabanga kanzulu ngendlela izilimi ezihlobene ngayo. ..... A B C D E

12. I learnt to value the role of my home language in education.
Ngifunde ukuhlonipha iqhaza elingabanjwa ulimi lwami kwezemfundo. ..... A B C D E

13. I had opportunities to develop my isiZulu vocabulary.
Ngithole ithuba lokuthuthukisa ulwazi lwamagama esiZulu. ..... A B C D E

14. I would support the use of African languages in other subject guides.
Ngingaku xhassa ukusetshenziswa ko limu lwesintu nakwezinye izifundo. ..... A B C D E

SECTION C: DETAILED INFORMATION

The next five questions require detailed answers. Feel free to explain in either isiZulu or English.

15. What do you think are the strengths of this subject's learner guide?
Yini encomekayo ngencwadi yalesi sifundo?

……

……

16. What are the weaknesses of this subject's learner guide?
Yini engeyinhle ngencwadi yalesi sifundo?

……

……

17. What suggestions do you have for improving this subject's guide?
Iziphi izincomo ongazibeka ukuze isifundo sithi ukuthuthukiswa?

……

……

18. What are the most valuable things you have learnt through your participation in this type of subject that uses two languages?
Iziphi izinto ezibalulekile ongathi uzizuzile ngokuba yingxenye yalesi sifundo esixuba izilimi?

……

……

19. Any general comments?
Okunye ongathanda ukukubeka?

……

……

Appendix 2: Lecturer questionnaire

SECTION A: PERSONAL DETAILS

Even though your participation in this study is anonymous, we would however appreciate it if you could provide the following general information about yourself:

1. Age group:

30-35	36-40	41-45	46-50	Over 50

2. Gender:

Male	Female

3. First/home language: .....

SECTION B: LEARNER GUIDE EVALUATION

Please ring the response that you think is most appropriate to each statement. If you wish to make any comments in addition to these ratings please do so on the back page.

The use of isiZulu in the guide:	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
4. Encourages students to participate in classes.	5	4	3	2	1
5. Helps students develop literacy in English.	5	4	3	2	1
6. Is appreciated by students.	5	4	3	2	1
7. Develops students' interest during lectures.	5	4	3	2	1
8. Results in effective lecture delivery.	5	4	3	2	1
9. Retards the development of students' English proficiency.	5	4	3	2	1
10. Results in language confusion.	5	4	3	2	1
11. Enables students to freely use their home language in class.	5	4	3	2	1
12. Enables students to freely use English in class.	5	4	3	2	1
13. Creates a good rapport with learners.	5	4	3	2	1
14. Broadens my perspective on bilingual/multilingual education.	5	4	3	2	1

SECTION C: DETAILED INFORMATION

The following five questions require slightly more detailed answers. Use the back of the page if necessary.

15. What are the best features of the guide?
16. What are the worst features of the guide?
17. Where can improvement be made in the guide?
18. Would you recommend the style of this guide to other content subjects and English lecturers/educators? Briefly explain.
19. Are there any other comments you wish to make about the use of isiZulu to teach English?

CHAPTER 16

'TUTORING IS FUN'
A STUDY INVESTIGATING TUTOR MOTIVATION

MÉGAN BURGOYNE
ADA JANSEN
CARINA SMIT

Introduction

In the global higher education context, diminishing resources, growing student numbers, larger class sizes and a pressure on academic staff time, are cited as some of the reasons for the increase in use of tutors in undergraduate education (Park, 2002). The reality of reduced resources often requires departments to fulfil the dual requirement of improving the quality of teaching, while 'doing more with less' (Topping, 1996:321). In response to this challenge, tutorial programmes have, in many instances, become a vital part of the academic support structure of undergraduate modules (Barrington, 1999).

The tutors who work on these tutorial programmes are usually young graduate students who are enthusiastic, yet have no formal teaching experience (Brailsford, Bartlett-Trafford, Bates & Mead, 2008). Contract university tutors have been characterised as 'departmental donkeys' (Park & Ramos, 2002), are often seen to be over-worked and undervalued and often bear the brunt of the undergraduate teaching load (Brailsford *et al.*, 2008).

While the range of educational advantages for students participating in tutorial programmes is well researched, the benefits of tutoring, as experienced by the tutors themselves, should not be underestimated. Peer tutoring requires tutors to, for example, re-acquaint themselves with knowledge of their discipline they have already acquired, which may have a positive impact on their own studies (Topping, 1996). Peer tutoring, often promoted by the mantra 'teach once, learn twice', is characterised by 'specific role-taking as tutor or tutee, with high focus on curriculum content and usually also on clear procedures for interaction, in which participants receive generic and/or specific training' (Topping, 2005:632).

The pedagogical advantages of peer tutoring for the tutee include the following: 'more active, interactive and participative learning, immediate feedback, swift prompting, lowered anxiety with correspondingly higher self-disclosure, and greater student ownership of the leaning process' (Topping, 1996:325). In tutorials where the model of peer tutoring is employed, students have the opportunity to make errors and to be corrected by their peers or their tutor. Since students tend to see the tutor as one of their peers, they usually feel more confident approaching their tutor with their academic concerns than discussing these with their lecturers (McClure, 2007).

'Good tutors are worth their weight in gold' (Brailsford *et al.*, 2008:7) and sourcing good, motivated students from the pool of potential tutors is a challenge, since it is not always apparent what factors motivate students to become involved as tutors in tutorial programmes. This study therefore investigates the factors that motivate students to become tutors in the Economics Department at Stellenbosch University (SU).

Theoretical perspectives

In order to understand the factors motivating tutors to participate in tutorial programmes and how their effective involvement and level of motivation affect the success of these programmes, it is necessary to explore principles of motivation and to highlight variables that can impact on the motivation of tutors.

Principles of motivation in the tutor context

According to Greenberg and Baron (1993:114) motivation can be described as 'the set of processes that arouse, direct, and maintain human behaviour toward attaining a goal'. Although a person's motivation cannot be observed and measured directly, motivation is reflected in human behaviour (Holden, 1990).

In social psychology, motivation is often divided into two categories: either being 'extrinsic' or 'intrinsic' in nature (Bateman & Crant, n.d.; Fresko, 2001; Holden, 1990). According to Holden (1990), extrinsic motivation is influenced by factors such as the environment people work in and financial reward. Extrinsically motivated tasks are performed for the purpose of receiving some form of reward, such as monetary remuneration or acknowledgment for completing a specific task. Intrinsically motivated tasks, on the other hand, are not performed for the purpose of receiving an external reward. Instead, these tasks are performed because they are rewarding experiences in themselves (Bateman & Crant, n.d.).

In the tutoring context, intrinsic and extrinsic motives may explain why students decide to become tutors, but not all motives apply to each tutor equally. A study conducted by Dickinson (1999:223) lists the following possible reasons for volunteering to become a tutor:

- I thought it would increase my chances of getting a job.
- I wanted to do something to help the community.
- I wanted experience of teaching as I am considering it as a career.
- My friends were doing it and they said it was good fun.

- I wanted to improve my interpersonal skills.
- I thought it would help me get to grips with my own subject.

The key benefits of gaining teaching and work experience and improving interpersonal skills are echoed by Sheehan *et al.* (cited in Park, 2004) who suggest that successful tutors have, or can develop, a diverse array of pertinent skills. These include being familiar with what is expected of undergraduate (especially first-year) students, having the ability to present material in a creative, but relevant manner and being able to encourage productive class discussion. Skills that can become useful once they enter the formal labour market include gaining teaching experience, becoming more confident in public speaking, conducting small-group discussions and learning to work as a team (Park, 2002). This is particularly important because small businesses are not always able to train graduates after employment – they therefore require graduates who have already developed the necessary skills for employment (Powell-Williams, Pierce & Fry, n.d.).

Variables impacting on the motivation of tutors

A number of factors affect the motivational levels of tutors in their tutoring task. Limited work autonomy, the extent of departmental support, financial remuneration and the impact of tutoring on the tutors' own studies are aspects that will be explored next to determine to what extent they influence the behaviour of tutors.

Limited work autonomy

Drawing on earlier work, Beyth-Marom, Hapraz-Gorodeisky, Bar-haim and Godder (2006:2) speak of 'relationships between core job characteristics, critical psychological states and their impact on several affective, motivational and performance outcomes'. This work suggests that jobs where employees are able to exercise various skills and abilities, to complete identifiable tasks, to understand the significance of the job, to be creative and autonomous and who receive feedback, leads to favourable results in terms of satisfaction, work motivation and work performance (Beyth-Marom *et al.,* 2006).

Beyth-Marom *et al.* (2006) suggest that since tutors do not have much input into course material, assignments, assessments and sometimes also tutorial question sets, they have very little work autonomy. This could potentially lower tutors' work motivation which could have a negative impact on tutors' enthusiasm and the quality of their teaching (Park, 2002). Park and Ramos (2002), however, argue that although some tutors complain about having little work autonomy, being given limited responsibilities prevents tutors from becoming over-burdened with their tasks and ensures that academic quality is maintained.

The extent of departmental support

Luft, Kurdziel, Roehrig and Turner (2004) acknowledge that while tutors play a vital role in higher education, they are unlikely to achieve their potential without adequate instructional support. According to Azevado (1990) the departmental support structure that is offered on tutorial programmes consists of various elements, including

training workshops and feedback on teaching by peers and faculty. Some academic departments, however, do not provide sufficient support to tutors. In such cases, no feedback is provided on tutors' teaching skills and they do not receive an opportunity to have their tutorials evaluated by academic staff (Park & Ramos, 2002). This often leads to tutors feeling neglected and not considered a valued part of the department by whom they are employed (Whitecross & Mills, 2003). Luft *et al.* (2004) suggest that tutors should be evaluated on their teaching skills on a regular basis by both their fellow tutors and the department in which they are involved. Furthermore, tutors who are not effectively equipped to engage in teaching activities may have 'an overblown confidence' in their abilities, and departments need to help tutors develop these essential teaching skills, abilities and knowledge (Luft *et al.*, 2004:214).

The Centre for Prevention Research and Development at the University of Illinois (2005:3) states that tutors are more likely to be effective when they receive comprehensive training and ongoing support. In addition, in order to ensure that first-year students receive adequate support, it is crucial to appoint tutors who have a sound academic knowledge, are motivated to help students and have proficient presentation and communication skills. However, having sound knowledge of a discipline is not sufficient to provide tutors with confidence to fulfil their roles as tutors (McClure, 2007). It is therefore important to include an effective training course to prepare tutors for the challenges involved in their teaching[1] tasks.

Financial remuneration

While tutoring provides work experience to tutors, financial remuneration is another benefit of participating in programmes of this nature (Park, 2002:53). Concerns are raised about the rate of pay, given the workload involved as well as different payment structures used between departments (Park, 2002).

However, Park and Ramos (2002) claim that although some tutors are anxious about the transitory nature of their contract, their willingness to help students may overshadow these concerns. When tutors' decisions to become involved in a tutorial programme are driven by intrinsically motivated factors, they are generally willing to spend more hours on the tutorial programme than they are remunerated for:

> ... [i]t remains the case that many [graduate teaching assistants] are happy with their lot, because to them 'the bigger picture' (gaining useful teaching experience and transferable skills, contact with bright students, closer academic relationships with course leaders and so on) is more important than just workload payment and status. (Park & Ramos, 2002:53)

The impact of tutoring on the tutors' own studies

Tutoring tasks usually involve both contact time with students and non-contact time – time that is spent on preparing for tutorials, attending meetings and training sessions with other tutors and communicating with students after tutorials, for example. In

[1] 'Teaching' in the context of the tutorial programme refers to the facilitating role of tutors in explaining concepts and working through question sets with students.

research conducted by Park (2002), tutors expressed concern that the amount of time they spend on non-contact time exceeds the time spent on teaching the students (Park, 2002:57). This issue becomes particularly problematic when tutors believe that being involved in tutoring has a negative impact on their own studies and reduces the time available for research (Park & Ramos, 2002; Whitecross & Mills, 2003).

It is clear then that the aspects impacting on a student's motivation to become a tutor are numerous and range from intrinsic and extrinsic goals, work autonomy, the extent of departmental support offered, financial remuneration and the impact of tutoring on the tutors' own studies.

Why the focus on tutor motivation?

In the Economics Department at SU, the size of first-year lecture classes typically exceeds 200 students per class. It is therefore challenging for lecturers to provide sufficient individual support to under-performing students to help them make a success of their studies. This is especially problematic for first-year Economics students, who generally perceive the discipline to be difficult and abstract (Caropreso & Haggerty, 2000, cited in Van der Merwe, 2006). Students who are less confident in mathematics generally struggle with the subject matter (Langerlöf, 2008), which places them at a distinct disadvantage. A further challenge that is experienced by the Economics lecturers at the SU, is that students have difficulty in adopting effective study techniques in the discipline.

In response to these problems, the Department implemented a more structured tutorial programme for first-year students in 2005. Tutorial classes, in the context of the Economics Department, comprise about 30 students each. The tutorial programme targets under-performing students (those who do not pass an early assessment test) and the classes create the opportunity for students to receive individualised attention to address specific academic problem areas. Tutorial classes meet once a week to work through question sets that are of a similar standard to tests and examinations. The lecturers involved in the tutorial programme are solely responsible for setting up the tutorial question sets and the tutors assist students in understanding and applying the content of the module by working through these sets.

The programme served approximately 1,700 first-year students during the first semester of 2008 and employed 23 tutors. Table 16.1 provides a summary of the characteristics of the Economics tutors of 2008.

Table 16.1 Summary of 2008 Economics tutor characteristics

Gender	Number	Percentage
Male	13	57%
Female	10	43%
Previous tutoring experience	**Number**	**Percentage**
None	15	65%
Prior tutoring experience before being an Economics tutor	8	35%
Academic status	**Number**	**Percentage**
Postgraduate	19	83%
Undergraduate	4	17%
Average age	23.5 years	

The Department uses the 'cross-year small-group tutoring' model (Topping, 1996:327), in which final-year undergraduate or postgraduate students are employed as tutors to facilitate and strengthen the acquisition of knowledge in the students' learning processes. Tutor positions are advertised to second-year and third-year undergraduate and postgraduate Economics students during the fourth quarter of the academic year, for the subsequent year. Successful applicants receive a list of responsibilities, upon which they sign a contract with the department for one year. The main rationale for employing tutors who have recently successfully progressed through their undergraduate studies is that they are in a better position to grasp and respond to the challenges experienced by first-year students. In general, these tutors are able to identify with some of the concerns of the first-year students and may be able to explain concepts in a more relevant way (Park, 2002).

The Department acknowledges that although these tutors have acquired an extensive knowledge of Economics, the art of teaching this to first-year students requires considerable determination on the part of the tutor, as well as sustained departmental support. Consequently, the Economics Department has developed an extensive support structure for tutors. Lecturing staff involved in the tutorial programme have an open-door policy and tutors are encouraged to share any issues that arise from their tutorial classes. Tutor training is arranged before the commencement of the tutorial programme and tutors are compelled to attend these workshops. The generic training is presented by the Centre for Teaching and Learning (CTL) and covers the following aspects: the roles and responsibilities of tutors; how students learn; small group facilitation skills; and diversity and classroom management. The tutors are also expected to participate in a micro-teaching session prior to commencing with their tutoring duties. During this session each tutor has the opportunity to present a first-year Economics topic to their peers, the lecturers involved, as well as a representative of the CTL. Feedback is then given in terms of possible areas of improvement.

Workshops to address specific problems arising from tutorial classes during the course of the academic year are also arranged as required. As part of the tutors' weekly preparation, they are expected to attend weekly meetings with the first-year lecturing staff, where each tutorial question set is discussed. The involvement of lecturing staff in this manner is crucial to ensure that the tutorial programme forms an integrated part of the first-year course.

Research design

Before this study was undertaken, permission was obtained from the Economics Department to administer questionnaires during the course of 2008. Two questionnaires were administered during the data collection process. In addition to the tutor questionnaire, a student questionnaire rated students' opinion of their tutor. The questionnaire completed by the tutors focused primarily on their motivating reasons for becoming tutors and evaluated their tutoring experience. This questionnaire was administered electronically using an electronic survey tool called 'SUsurveys'. Descriptive statistical analyses were performed on the data. Table 16.2 contains an extract of some of the questions included in the questionnaire.

The tutors were required to indicate their responses on a Likert scale of 1 to 5, where 1 represents 'strongly disagree' and 5 represents 'strongly agree'. In addition to these items, there were also two open-ended questions asking for suggestions on how to improve the tutorial programme, as well as any other additional comments. Tutors were given the option to remain anonymous.

Whilst analysing the data obtained from the questionnaire, the authors became aware of limitations pertaining to certain questions posed. In particular, more detailed questions are required in order to gain a better understanding of the reasons why tutors enjoy helping students. Furthermore, two of the authors were directly involved with the tutorial programme, which created an opportunity, subsequent to completing the statistical analysis of the research, to become aware of interpretation errors made by some tutors in specific questions of the questionnaire.

The authors acknowledge that the transitory nature of the tutors' employment, which implies having a new group of tutors every year, as well as the study being context-specific to the Economics Department, is not conducive to making generalisations and drawing causal links.

Table 16.2 Excerpts from the tutor questionnaire

Factors affecting tutor motivation	
What motivated you to become a tutor?	Financial remuneration
	Work experience
	Interpersonal skills
	Improve knowledge of Economics
	Helping students
	Previous tutoring experience
	Explain the subject of Economics
An Investigation into Tutors' Experience on the Economics Tutorial Programme	
Being an Economics tutor ...	... makes me feel good about helping students
	... helps me in my studies
	... provides me with work experience that will improve my chances of getting a job
	... takes too much time
	... prevents me from focusing on my own studies
	... does not pay well
Work autonomy	Do you think it is the sole responsibility of the department to set up the tutorial questions?
Departmental support	What is your impression of the level of support (assistance with class preparation, collegial support, etc.) you have received from the Economics department thus far?
Which part of your role as tutor do you enjoy the most/least?	The teaching: explaining concepts and calculations.
	The preparation: preparing for the tutorial classes.
	The collegial part: meeting other tutors, engaging with lecturers and tutor programme coordinators, etc.
	The administration: class attendance lists, answering e-mail queries, etc.
	The students: Interacting with the students (encouraging participation).

Findings and discussion

The analysis generated a number of themes that were found to resonate with the literature and are reported in this section chronologically, as presented in the questionnaire. This section firstly analyses the factors that motivated students to become tutors, and secondly, investigates tutors' experience on the tutorial programme. This section is based on the responses from 23 tutors.

Factors affecting tutor motivation

The tutor questionnaire listed several factors that could provide motivating reasons for becoming an Economics tutor. Figure 16.1 presents the responses to these factors.

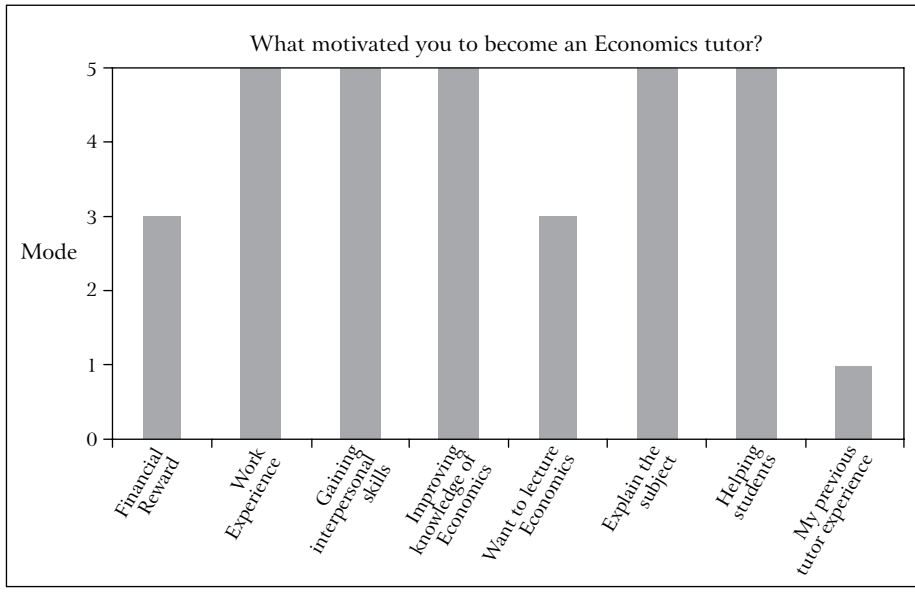

Figure16.1 Factors influencing the motivation to become an Economics tutor

The results indicate that five factors dominated as motivating reasons for becoming a tutor: helping students; explaining the subject; improving knowledge of Economics; gaining interpersonal skills and gaining work experience. This decision was driven by intrinsically motivating reasons, including helping students and explaining the subject, which corresponds with Park and Ramos' (2002) findings. Tutors also listed 'improving knowledge of Economics' as an important reason for becoming a tutor. This shows that tutors acknowledge that tutoring offers them the opportunity to revise basic concepts of the Economics discipline, which could have a positive impact on their own studies (Topping, 1996).

Work experience, including gaining interpersonal skills, proved to be another important motivating reason for becoming a tutor. It seems as though tutors recognised that tutoring offers a good opportunity to build confidence in public speaking and to acquire group facilitation and presentation skills.

Financial reward seems to have played a less significant role in motivating students to become tutors. One possible explanation for this finding is that not all of the tutors in this study financed their own studies, with 16 tutors indicating that they were financed by bursaries and their parents. The compensation received from the tutorial programme may therefore be perceived to be complementary to their allowances.

Regarding prior tutoring experience, 15 tutors indicated that they had not tutored before. Seven of these tutors did not respond to this question, as would have been expected, since the question did not apply to them. Five tutors disagreed (i.e. chose 1 on the scale), which implies that they felt that the question was not relevant. This explains why the mode shows that tutors did not consider prior tutoring experience as one of the dominant motivating reasons for becoming a tutor. A more in-depth analysis, however, revealed that of those tutors who have tutored before, most of them had indicated that their prior tutoring experience was an important motivating reason.

Tutors' experience on the Economics Tutorial Programme

The data reflects that 13 tutors strongly agreed that being an Economics tutor made them feel good about helping students. Furthermore, on the question of which aspect of their role as tutor they enjoyed the most (see Table 16.2), 12 tutors indicated that the teaching aspect, which includes explaining the subject matter, was the most enjoyable.

An investigation into the relevance of gaining work experience was also found to be important. A total of 15 tutors agreed that being an Economics tutor provides them with work experience. It is interesting to note that this result is more pronounced for male tutors, as ten of the 13 male tutors agreed that being an Economics tutor provides them with work experience, as opposed to five of the ten female tutors. The importance of work experience is also reflected in the finding on 'gaining interpersonal skills', as developing presentation and communication skills are invaluable in most working environments. Students are not always exposed to situations that allow them to practice these skills, so the act of tutoring can indeed hone these abilities.

On the question of whether the tutorial programme takes up too much of their time and has a negative impact on their own studies, the findings are not conclusive. Nine tutors indicated that the tutorial programme did not take up too much time and prevented them from focusing on their own studies. Eight tutors were undecided on this question. Some tutors, however, felt that the administration and tutorial staff meetings were too time consuming.

On the topic of financial remuneration, nine tutors indicated that the compensation for their time was too little and six of the remaining tutors were undecided on this issue. One could argue that this dissatisfaction with the compensation could be related to either the hourly rate or dissatisfaction with the amount of hours spent on preparation. The open comments reveal that some tutors were dissatisfied with the hourly rate, 'it would be nice if there was a minor increase in the hourly rate' (Economics tutor 3) and 'you could also increase the remuneration rate, a happy tutor is a good tutor' (Economics tutor 12). The time spent on preparation differs from tutor to tutor, as revealed by the comment, 'regardless of the memo that we get I still spend much time in preparation. However, I don't know if this is true for all tutors' (Economics tutor 10). It therefore seems that tutors may have underestimated the time and effort they will spend on the tutorial programme. The Economics Department remunerates its tutors at an hourly rate and the rate is determined after

considering the compensation paid by other departments at SU that also offer tutorial programmes.

Another important issue is the extent of tutors' work autonomy in the tutorial programme. Tutors who work more independently from the departmental structures are generally required to spend more time on preparation and administration. One of the questions in the questionnaire asked tutors whether they think it is the sole responsibility of the lecturers to set up the tutorial question sets. Fourteen tutors agreed, while the rest were of the opinion that the lecturers should not be solely responsible for this task. Of those who disagreed, five tutors indicated they would be prepared to be involved in setting up the questions. This was an unexpected finding as it was anticipated that the majority of the tutors would prefer more autonomy and creative license with the tutorial question sets.

In response to the question, 'which part of your role as tutor do you enjoy the least?' (see Table 16.2), five tutors indicated that they enjoyed the administrative tasks the least, and mentioned the regular meetings with fellow tutors and engaging with lecturing staff during these meetings. Although this is an unexpected finding, an open question asking for additional comments on how the tutorial programme can be improved, shed light on this issue. 'The tutors must take responsibility for themselves. In the meetings we are spoon-fed – I have never found the meetings helpful. If I have a problem, I sort it out myself' (Economics tutor 13). Although some tutors preferred to meet less frequently, others noted that the support from and engagement with lecturing staff were invaluable, 'the sessions with [lecturers] helped a lot and is a good idea because it helps with preparation and to ensure that concepts are correctly explained to students' (Economics tutor 21 – translated). The tutors' responses to their administrative tasks were contrary to the Department's expectations, since the Department takes almost full responsibility for the administrative tasks of the tutorial programme and tutors were only expected to submit weekly attendance lists and responded to e-mail enquiries. Other tutorial programmes, especially those in which tutors have more autonomy, place a greater administrative burden on tutors. This could be another reason why the tutors prefer to have less autonomy. Concerning the issue of administration, Park and Ramos (2002) and Whitecross and Mills (2003) maintain that tutors may see administrative tasks (including preparation, assessment, dealing with students and attending meetings), as a burden.

The questionnaire included a question on departmental support, asking tutors 'what is your impression of the level of support (assistance with class preparation, collegial support, etc.) you have received from the Economics department thus far?' The results indicate that the majority of the tutors were impressed with the extent of departmental support. 'I am especially grateful to the support that the department has given us' (Economics tutor 10).

Summary comments

This study found that extrinsically motivating reasons, such as financial reward, seemed not to have dominated the students' decisions to become Economics tutors.

Tutors indicated that they enjoyed helping students and explaining the subject to them. Furthermore, tutors (more so male tutors) found the tutorial programme to provide good work experience, including building confidence in public speaking and acquiring presentation skills. Tutors spoke highly of the Economics Department's extensive support structure for the tutorial programme and indicated that they enjoyed being part of it. Their experience in this regard is captured by the following comments: 'Tutoring has been an incredibly rewarding experience for myself and I have enjoyed it thoroughly' (Economics tutor 10); 'It's an awesome programme that should be also extended to second and third years' (Economics tutor 12) and 'It is fun – a good experience' (Economics tutor 17).

Conclusion

In order for tutorial programmes to be sustainable and successful, it is essential that, apart from securing sufficient funding, they should maintain a high morale amongst tutors to ensure their effective involvement. Understanding the factors motivating tutors and their overall tutoring experiences, optimises the potential benefit that exists within the tutor/student relationship. An optimally functioning tutorial programme can lead to the improvement of the first-year experience in general.

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CHAPTER 17

TEACHING EXPLICITLY THAT WHICH IS TACIT
THE CHALLENGE OF DISCIPLINARY DISCOURSES

CECILIA JACOBS

Introduction

This chapter focuses on how lecturers of first-year students can better bring the tacit knowledge and understandings they have of the workings of discourse within their disciplines, into the realm of overt and explicit teaching, for the benefit of the first-year students they are teaching. In this chapter I use the term 'discourse' to mean ways of combining words, deeds, thoughts, values, bodies, objects, tools and technologies, so as to enact and recognise specific socially situated identities and activities (Gee, 2001). Throughout his work Gee cites academic disciplines as particularly good examples of discourses, and refers to the need for lecturers (the experts) to induct students, especially at the first-year level, into these discourses through a process of participation in the disciplinary discourse community. It is through participation in the disciplinary discourse community, over the period of their studies, that students increasingly take on the discourse and develop the identity of being a member of that community.

This view is supported by a growing body of knowledge, emanating from both New Literacy Studies (Gee, 1990, 1998, 2003; Gee, Hull & Lankshear, 1996; Street, 1984, 1993, 1997, 1999, 2003) and Rhetorical Studies (Bazerman, 1989a, 1989b, 1991, 1994; Geisler, 1994a, 1994b) literature, which suggests that while lecturers 'know' the discourses of their disciplines, that knowledge has a tacit dimension, making it difficult for these lecturers to teach it explicitly, and therefore difficult for students to learn. This difficulty is especially evident in the first year of study, as students at this level are complete novices to the discipline of study they have chosen to enter. The need for lecturers to make the hidden disciplinary discourses explicit to students at the first-year level is therefore greater than at subsequent levels of study.

Background

This chapter reports on the results of a study, more fully explicated in Jacobs (2005a, 2007a, 2007b), which found that lecturers needed to work within their disciplinary discourse communities, while simultaneously having a critical overview of this 'insider' role, from outside of it. The study found that it was through engaging with academic developers, who were 'outsiders' to their disciplinary discourses, that lecturers found themselves at the margins of their own fields, and were able to view themselves as insiders from the outside, as it were. This shifting location from a purely insider perspective, to an insider perspective from the outside, shifted lecturers towards a critical understanding of the teaching of disciplinary discourses and enabled them to make explicit their tacit knowledge and understandings of their disciplinary discourses.

Theoretical framing

The study reported on in this chapter is framed by two theoretical orientations: New Literacy Studies, which has its roots in Anthropology and Linguistics, and Rhetorical Studies, which shares roots with the modern fields of Rhetoric, Composition Studies and Literary Studies. The rhetorical view of language analyses language in purposive use and concerns itself with how texts are produced, how they manifest themselves and how they are used within organised social settings. According to Klein (1996) discourse and rhetoric function as boundary concepts. Within what Klein describes as a broad 'rhetorical turn' in scholarship, rhetorical studies now exemplify the complex boundary work of interdisciplinary fields. Bazerman (1989b) describes rhetorical studies as a loosely-defined area, reflected by names such as 'composition', 'teaching of writing', 'rhetoric', 'the study of written language' and 'literacy studies'. Composition Studies redefined itself as the WAC (writing across the curriculum) movement in the early 1970s, as it took a new direction towards attempts to improve students' writing across the curriculum. In the mid 1980s the WAC movement saw itself expanding into the workplaces that students were entering after completion of their studies (Engeström, 1987; Odell & Goswami, 1985), and studies focussed on the ways writing was being used in the world of work. Samuels (2004) characterises the work of the WAC movement as an approach to higher education that 'pushes us to see knowledge as being socially constructed through shared acts of collaboration that cut across disciplinary borders.' This theoretical framing provides the basis for the approach adopted in the study reported in this chapter, namely where academic developers and disciplinary lecturers collaborate across their disciplinary boundaries, in an effort to teach the rhetorical structures of disciplinary knowledge (Bazerman & Paradis, 1991).

Although most early WAC programmes shared broad principles that linked writing and thinking, two strands with differing instructional emphases were emerging, creating what Bamberg (2000) refers to as a 'theoretical dichotomy'. One strand focussed on writing as a tool for learning, and was characterised as 'cognitive' in the literature, while the other strand focussed on teaching disciplinary conventions and genres, and

was characterised as 'rhetorical' in the literature (McLeod, 1989). By the early 1990s, these strands raised debates in the WAC movement about the role of writing and the nature of learning in the university curriculum. With a growing body of rhetorical research on writing in the disciplines, Bazerman (1991) proposed a shift in focus for the WAC movement, from generic writing workshops to the teaching of specialised disciplinary discourses. This body of research ushered in a new direction for rhetorical studies, referred to in the literature as WID (writing in the disciplines).

Most of the studies at the forefront of the WID movement are located in the disciplines of Science, Engineering and Technology (SET) (Bazerman, 1989a; Gross, 1990; Myers, 1990; Norgaard, 1999), and are centrally concerned with 'science's amazing capacity to generate solid, applicable, bridge-supporting, missile-launching, eclipse-predicting knowledge, but which happen(s) to find that such knowledge grows mostly in scientists' negotiations with each other, rather than in their negotiations with nature' (Harris, 1997:xxiii). These findings have led WID researchers to propose a rhetorical theory of literacy that sees literacy as socially constructed and argues that the linguistic resources individuals draw on to produce text (whether spoken or written) are shaped by a lifetime of interaction with others. This proposition is closely aligned to the way that the New Literacy Studies understands literacies. However, researchers in the Rhetorical Studies tradition have gone further into theorising the nature of expertise.

Bazerman (1994) argues that the discursive systems in our society are so complex that to attain a central and powerful role in any discourse requires a huge investment of energy, training and social activity. Because of this, he argues that few individuals move to the centre of discursive systems, and that those who occupy powerful positions in any one discursive system are unlikely to have such a role in any other discursive system. These propositions speak to the nature of expertise, and have implications for the study reported here. Applying Bazerman's theoretical propositions to higher education would suggest that tertiary educators who are experts in their respective academic disciplines (such as SET or Business Studies) are unlikely to be experts in other academic disciplines (such as Education or Linguistics). However, Bazerman proposes that it is much more typical that individuals have subordinate roles within a variety of discursive systems, and are guided by professional intermediaries who orientate them to those particular discursive systems. This proposition was applied to the study reported here, to establish whether academic developers in higher education should attempt to become experts in the disciplines where they teach themselves, or whether they should draw on the expertise of disciplinary lecturers to orientate themselves to the discursive systems of the discipline. This proposition was applied to the disciplinary lecturers in the reported study as well, to establish how they might draw on the expertise of academic developers to bring about awareness of their tacit knowledge of the discursive systems of their disciplines.

Bazerman contends that all teachers are concerned with socialising students into discursive systems and facilitating students' moves from one discursive system to another. He also points out that the discursive systems of disciplines remain largely

invisible. This would require disciplinary lecturers to make the discursive systems of their disciplines visible and explicit for their students; however, the New Literacy Studies asserts that understandings of the discursive systems of disciplines exist at a tacit level for disciplinary experts. Geisler's (1994a) theory on the nature of expertise within the academy would support the view that the tacit knowledge that disciplinary lecturers have of the rhetorical processes of their disciplines is not made available to students explicitly until the end of their undergraduate studies or even after. This raises the question as to how the rhetorical/discursive processes of disciplines might be made explicit to students earlier on in their studies.

One of the tenets of Rhetorical Studies is that writing takes on different forms across different disciplinary fields because of the differing social practices of particular disciplines. This view strongly opposes the notion that writing can be reduced to a set of skills transferable from one academic context to another or that texts are autonomous and naïve representations of formal knowledge. In this respect there is synergy between the New Literacy Studies and Rhetorical Studies. Although these two fields emanate from different theoretical and research traditions, the 'rhetorical turn' in scholarship (Klein, 1996), the 'linguistic turn' in social sciences (Street, 1999), and the 'social turn' in applied linguistics (Gee, 1998) all happened at roughly the same time in academia. However, while New Literacy Studies sees disciplinary 'insiders' as being in the best position to deconstruct the rhetorical dimension of knowledge, Rhetorical Studies continues to argue that teachers of writing (a type of academic developer), by virtue of being at home in the reading and writing of text, are best placed to deliver the rhetorical dimension of knowledge. The study reported here draws on both of these insights and explores how, through the interaction of disciplinary lecturers and academic developers, the rhetorical dimension of knowledge, expressed as disciplinary discourses, might be deconstructed for students. The chapter also explores how the shared expertise that each of these parties brings to higher education, might facilitate the explicit teaching of the tacit, rhetorical dimension of knowledge.

Methodology

The study reported on in this chapter examined how university lecturers across a range of disciplines, as well as academic developers, constructed their understandings of the rhetorical dimension of knowledge. The study also explored how the shared expertise that each of these parties brought to their teaching, heightened their awareness of the tacit nature of their disciplinary discourses and facilitated the explicit teaching of this rhetorical dimension of knowledge. Both narrative methodology and life history approaches, more fully explicated elsewhere (Jacobs, 2005b), were used in the study. These approaches allowed the researcher to explore the collaborative interaction between twenty lecturers (ten disciplinary lecturers and ten academic developers) retrospectively, and then analyse how the disciplinary discourses of their various disciplines were deconstructed for their first-year students. The narrated data from this group of 20 lecturers (in the form of transcribed narrative interviews and focus groups) were analysed using two levels of discourse analysis, namely, representational and presentational (Freeman, 1996).

Findings

The process of engagement, through which academic developers shifted lecturers to making explicit the rules governing their disciplinary discourses, is explicated in the data in a number of ways. A Business Studies lecturer described this process in the following way:

> We needed someone from the outside to be able to see because once you are inside, you're the player, you don't see everything. But the person, the spectator so to speak, can see the whole game as it were, and that perspective is important. Just to bring you back and say, 'Look this is what I can see', and maybe you can't because you're so focussed, you just see your own role and not how it fits into the broader picture.

In this excerpt, the Business Studies lecturer describes the academic developer as a 'spectator, someone from the outside' of the discourse community, who was 'able to see' the disciplinary discourses in an explicit way because she had the 'whole game perspective'. He sees himself as a 'player' who is 'inside' the disciplinary discourse community and as a result of this insider position he 'doesn't see everything'. Their process of engagement is described as the academic developer 'bringing him back' to seeing things the way she does, 'the broader picture' of the discipline and its discourse patterns, which he has difficulty doing as he is too 'focussed' on his 'own role' as an insider.

An Engineering lecturer articulates the tacit nature of the knowledge that he has regarding the discourses of his discipline as 'the rules of the discourse ... taking over' without his 'realising it', and he describes this process as one he 'slips into ... quite unconsciously'. He problematises his 'slipping into the discourse of his discipline' when dealing with students, as he feels this 'disempowers' them and 'makes assumptions about a knowledge base' that they do not yet have. This lecturer uses the metaphor of being inside a 'porous cocoon' to describe what it is like to be inside of a discourse:

> ... just working with [an academic developer], you suddenly realise that you're veering way into the discipline, like talking out from the discipline rather than bringing people in with you into it, that's, that's always sort of hard when you're in something because it's like sitting just in this, some kind of cocoon in a way, I suppose, and then talking through, then talking to someone outside, saying and then describing what's around you and you're very familiar with all these things and this other person can't actually see them, the person can't actually see it because you're looking at it around you and it's like talking to someone through some kind of porous cocoon, they can hear you but they really aren't sure what you're actually meaning and it's only, only when you move outside it like that ...

He compares his disciplinary community to a cocoon and the discourse of his discipline to what is inside of the cocoon. He is 'familiar' with what is inside the cocoon, and only those 'inside the cocoon' can see it, however those on the 'outside' of the cocoon, his students and his academic development partner, cannot see it. They only hear

the discourse but cannot make meaning of it. He suggests that the way to make the discourse meaningful for the 'outsiders' is for him to 'step outside of' the cocoon, but this is 'hard' because the discourse is 'so much part of him'. For this lecturer it becomes clear that it is in 'working with an academic developer' that he 'suddenly realises' that he is 'veering way into the discipline'. In the interview he describes 'veering way into the discipline' as using dense language, 'packed with jargon' and saying things that make assumptions about the knowledge base that students have.

In these extracts, the lecturers articulate very clearly the challenge they face in bringing what they already know tacitly, into the realm of overt and explicit teaching and how their interaction with an academic developer enabled them to 'step outside of' the discourse and bring their tacit knowledge to the realm of conscious understanding. They both ascribe this to the fact that their partners were outsiders to their disciplinary discourse communities. It appears to be the outsiders (the academic developers) who are able to take the insiders (the disciplinary lecturers) out of their disciplinary communities as it were, and allow them to view it from the outside, as a student would.

Discussion

The process outlined in the data took place during joint planning sessions between lecturers and academic developers, as they prepared their teaching materials for team-taught lessons. These joint planning sessions brought about a deeper awareness, especially among the lecturers, of the workings of discourse within their disciplines. This awareness was in turn applied to the classroom practices of the participants in a variety of ways. For some lecturers, this awareness translated into a greater focus on disciplinary terms and meanings in the texts used in their teaching, and a shift away from a focus on only content. This growing awareness was also applied to how lecturers assessed and how they communicated with students during classes. Some lecturers moved beyond simply explaining disciplinary terms to the students, to making the students find the meanings themselves, as a structured classroom task. An example of such a task was getting students to compile their own 'personal vocabulary notebooks' which they kept adding to as they encountered new disciplinary terms.

In their approach to assessment, lecturers showed a growing awareness that for them to assess whether students had understood the content, they needed to express themselves fully, not just give a phrase or single word answer. This led to assessment questions that shifted beyond the multiple-choice variety, to questions that explored disciplinary concepts in more depth, requiring students to apply their content knowledge in real-world contexts. The application of this awareness found expression beyond the classroom for some lecturers, who infused their developing understandings regarding the role of discourse in their disciplines, into curriculum development, 'and it's curriculated into our qualification. Communication is one of the main five outcomes for our qualification'.

Where collaborating lecturers and academic developers engaged with and questioned each other, the partnerships tended to reach deeper levels of understanding

regarding the teaching of disciplinary discourses. This combination, of discursive engagement and a questioning partner, was found to be particularly valuable, given that students, especially first-years, tended not to question their lecturers when they needed clarity:

> ... that's where I found [the academic developer] helped a lot more ... students don't tend to question ... you say: 'Do you understand that? Does it make sense to you?' And they will just say 'yes' ... whereas [the academic developer] saying to you: 'Sorry, it is not really very clear at all', that I found very, very helpful because it would test something.

The nature of the interaction with an academic developer appeared to be an important factor here. The query: 'Sorry it is not really very clear at all', enabled the lecturer to see what he needed to make overt and explicit for his students. While Gee (1990) acknowledges that non-mainstream students, who are somewhat marginal to the discourses of their disciplines of study, often have insights into the workings of these discourses that more mainstream members do not, this data suggests that academic developers working within 'other' disciplines bring these same kinds of insights, as they too are marginal to the discourses of these 'other' disciplines. These insights would include an awareness of when disciplinary language is 'dense' and 'packed with jargon', and when disciplinary specialists speak in ways that make assumptions about a disciplinary knowledge base that students or 'outsiders' do not have. However, they also bring the academic 'cultural capital', that non-mainstream students often lack, and an equal status as tertiary educators, which gives them the power to engage their disciplinary colleagues around the language practices and rhetorical processes underpinning the discourses of their disciplines. In this way, academic developers can assist in bringing to conscious awareness the tacit knowledge that disciplinary lecturers have of the discourses of their disciplines.

Another important factor seemed to be a criticality in lecturers regarding the nature of knowledge production in their own discipline. Insight into how knowledge was produced within their own disciplines, and the implications of this for teaching and learning, were important characteristics for making disciplinary discourses explicit. Where lecturers had an understanding of disciplinary knowledge as discursively constructed and disciplinary discourses as embedded within ways that disciplines constructed themselves through language, they were better able to make the tacit explicit. This has implications for the teaching and learning of disciplinary discourses.

Implications

The data in this chapter and from the broader study seem to suggest that the following strategies lead to improved teaching and learning of disciplinary discourses, especially at first-year level.

Peer classroom observation among disciplinary lecturers and academic developers

Although this process was viewed with some trepidation by a number of lecturers in the broader study, those who engaged in peer classroom observation found it an enriching experience: 'It was positive. It just shows you, the teaching, you're thinking that you're doing the right thing but the moment somebody else comes and sits in your class, they can point out certain things ...' It was also valuable to the academic developers who were able to 'see' the classroom disciplinary discourses in action.

Collaborative design of curricula that integrated the teaching of disciplinary discourses explicitly

In the study reported here, this was done through the linking of the formal credit-bearing subject 'Communication Skills', with a compulsory first-year disciplinary subject. This approach formalised the relationship between the academic developers and the disciplinary lecturers, and also allowed for the collaboratively developed curricula to be reinterpreted with a view to making disciplinary discourses explicit.

Team teaching among disciplinary lecturers and academic developers

Team teaching provided the collaborative partnerships with a context of practice, within which they could explore different approaches to making disciplinary discourses explicit. Where partnerships were open to a discursive approach to team teaching, they seemed to find synergies between their respective approaches to teaching and learning. One partnership saw their team teaching as a conversation, 'there were two people and instead of teaching a lesson in class, we had a conversation in the class. We spoke to students and they began to engage with us, and if I couldn't answer a question, she would, and if she couldn't I would attempt', while another partnership saw their team teaching as a relay, 'just almost like a relay type of situation ... if I, for example, maybe hesitate and then she would jump in, and *vice versa*, and that sort of understanding was fantastic to develop, and I think that's crucial, there needs to be that, otherwise the team teaching exercise can be a little bit problematic'. Where partnerships were not open to a discursive approach to team teaching, their experience of teaching joint lessons brought out the differences in their respective approaches to teaching and learning. In all cases, team teaching was viewed as particularly helpful in trying to understand what the explicit teaching of disciplinary discourses meant in practice.

Joint task design and assessment of projects

This involved designing assessment tasks that integrated disciplinary knowledge, as well as the principles and patterns through which such knowledge was communicated. Participants in the broader study saw joint assessment as a tangible way of making disciplinary discourse explicit to students. They also found that the planning of these joint activities provided a space where they could develop common understandings about what the explicit teaching of disciplinary discourses meant for assessment. Differences in understanding what the explicit teaching of disciplinary discourses meant for assessment, was common among the collaborative partnerships. In one

partnership, the disciplinary lecturer clearly saw disciplinary discourses and disciplinary content as two separate things, where content was about 'all the facts' and discourse was about 'is or are'. These understandings provided the basis for the way in which he approached joint assessment, where he 'marks the contents' regardless of how his students 'arrange the facts' and his language partner 'marks all the language'. In another partnership the lecturer understood knowledge as discursively constructed and the curriculum as how his discipline intersected with the world. He understood disciplinary discourses as being deeply embedded within the ways in which the various disciplines constructed themselves through language.

Collaborative development of classroom materials

The process of collaboratively developing worksheets, handouts and student workbooks, highlighted the complex (often hidden) social practices that determined the principles and patterns through which the disciplinary content communicated meaning. One of the ways in which the collaborating lecturers attempted to make disciplinary discourses explicit was to interrogate not only the words, symbols, diagrams and formulas through which their disciplines communicated meaning, but also the actions and practices underpinning these expressions of discourse.

Classroom strategies to make the tacit explicit

This involved making explicit for students the rhetorical patterns underpinning their disciplinary knowledge bases. One of the ways this was done was by bringing authentic world-of-work texts into the classroom. These types of texts demonstrate the practice of disciplines, and illustrate how a discipline 'reads and writes' itself in the real world. In working with written texts from their disciplines, lecturers encouraged students to interrogate the complex relationships between the author of a text and the intended audience, as well as the broader social context within which such a text operated. Other strategies involved making the generic structures and discourse patterns in texts clearer for students and engaging students in writing for authentic purposes, (such as participating in public Environmental Impact Assessments), linked to tangible audiences other than the lecturer.

Creating and sustaining transdisciplinary 'communities of practice'

This involved establishing discursive spaces within and across faculties, where lecturers could operate outside of their discourse communities and explore their educator (rather than disciplinary) identities. One lecturer described the process that occurred in such a discursive space as a:

> ... chance to interact with so many different personalities, different experiences, different knowledges and so on because – like you're walking in a garden and so many different species of flowers there – you want to savour from each one and you do enjoy each one. ... and that is what I compared it to. You must take your time, don't rush, you know. ... And I say well, this is a beautiful room here, for a few seconds, linger, take it in, move, next one, and so on, and that was really marvellous.

Another lecturer found that this type of transdisciplinary space brought about a focus on educational issues rather than disciplinary ones, and made him 'really think about the way you teach, what you teach and are you making sense, you know, you really think about it'. For him, what was learnt through the discussions within the transdisciplinary discursive space was directly applicable to his classroom practice. He valued the focus that these discussions brought to issues of teaching and learning:

> Coming from an industrial background without teaching experience, it's really taken me back to my roots. Original, basic teaching principles, it's just awakened that again. Although initially I was very apprehensive but it really excited me as the project developed. It just brought the focus to the student, for me, much more and it just changed my whole perception of teaching as a whole.

The above strategies appeared to improve the teaching and learning of disciplinary discourses by promoting understandings of knowledge as discursively constructed, and discourses as embedded within ways that disciplines construct themselves through language practices.

Conclusion

The collaborative partnerships between academic developers and disciplinary lecturers provided the spaces where lecturers could explore their roles and identities as discourse teachers and expand their disciplinary identities to include that of discourse teacher. In higher education, where a number of lecturers have limited knowledge of, or experience in, matters of teaching, their academic identities are framed in terms of their disciplinary affiliation rather than their role as professional educators. This construction of a discipline-based identity in many ways militates against the incorporation of an identity as a discourse teacher. If one accepts that the identity of discourse teacher can be developed through interaction with colleagues from 'other' disciplines, then bringing academic developers and disciplinary lecturers into dialogue with each other should facilitate the development of an expanded identity, that of discourse teacher, in disciplinary lecturers.

This chapter raises the need for both academic developers and disciplinary lecturers to own the 'burden of rhetorical persuasion' (Geisler, 1994a:253) and redefine their respective roles within the process of making explicit the 'invisible' rhetorical processes underpinning disciplinary knowledge. I have argued that that it is through the interaction of disciplinary lecturers and academic developers that the rhetorical dimension of knowledge, expressed as disciplinary discourses, can be critically deconstructed for students, from as early as the first year of study.

The findings suggest that higher education needs to create sustainable discursive spaces for the collaboration of academic developers and disciplinary lecturers, which will facilitate the explicit teaching of disciplinary discourses, and where, through dialogue and collaboration, both academic developers and disciplinary lecturers can reshape how they construct their roles and identities within higher education. This speaks to a new role for academic developers, that of sustained collaboration with disciplinary

lecturers through engagement in such hybrid spaces that cross disciplinary boundaries and in which multiple identities can flourish.

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OPENING PERSPECTIVES ON THE FIRST YEAR • First-Year Experience as Terrain of Failure or Platform for Development? Critical Choices for Higher Education IAN SCOTT Small Steps to a Big Idea: Personalising the Postsecondary Experience PETER DIETSCHE Making Sense of First-Year Student Life: Transition as Ethnographic Process PAUL GREEN, ANNETTE CASHMORE, JON SCOTT, GEETHA NARAYANAN Weaving the Invisible Tapestry: Managing Diversity Through Orientation Innovation FRANCOIS STRYDOM, MELODY MENTZ Assessment of Students' Strengths: The First Step to Student Success LAURIE SCHREINER, EILEEN HULME • INSTITUTIONAL APPROACHES • Building a Case for Integrative First-Year Experiences at the University of Cincinnati PAMELA PERSON, GISELA ESCOE, MARIANNE LEWIS The First-Year Student Experience at the University of Botswana MICHAEL GREGORY Bringing the University to the User: Student and Staff Portals as Support Channels for the First-Year Academy ANTOINETTE VAN DER MERWE, RALPH PINA Access with Success: A 3-Tier Model for Supporting Reading-to-Learn CARISMA NEL, CHARL NEL • CASE STUDIES • Student Perceptions of the Factors Influencing their Success in First-Year Accounting LEN STEENKAMP, ROELOF BAARD, LIEZEL FRICK Introducing Law to Commerce Students: A Case Study AVINASH GOVINDJEE Student Assessment: Factors Influencing the Learning Process in First-Year Chemistry HANELIE ADENDORFF, MARIETJIE LUTZ Research and the First-Year Student: Opportunities for Learning STELLA GRANVILLE, LAURA [illegible] Infusing Adjustment Issues into the Curriculum in a Science Foundation Programme BETTE DAVIDOWITZ Lecturers' and Students' Reflections on a Bilingual Programme SANDISO NGCOBO 'Tutoring is Fun': A Study Investigating Tutor Motivation MÉGAN BURGOYNE, ADA JANSEN and CARINA SMIT Teaching Explicitly that which is Tacit – The Challenge of Disciplinary Discourses CECILIA JACOBS • CLOSING PERSPECTIVE • What Makes a 'Good' First-Year Lecturer? BRENDA LEIBOWITZ, SUSAN VAN SCHALKWYK, ANTOINETTE VAN DER MERWE, NICOLINE HERMAN, GERT YOUNG

SECTION FOUR

CHAPTER 18

WHAT MAKES A 'GOOD' FIRST-YEAR LECTURER?

BRENDA LEIBOWITZ
SUSAN VAN SCHALKWYK
ANTOINETTE VAN DER MERWE
NICOLINE HERMAN
GERT YOUNG

Introduction

The first year is an important stepping-stone in the career of the undergraduate student. Lecturers of first-year students play an important role in guiding students into this new phase of their lives. Much research has focused on the challenges facing new students, especially struggling, or non-traditional students. However, to our knowledge, little has been written about the attributes of the lecturers who actively promote student learning during this phase. The contribution of lecturers of first-year students has tended to be downplayed, especially at 'research-led' universities.

Our work in Stellenbosch University's First-year Academy (FYA), an initiative to promote the holistic learning experience of all first-year students at the University, gave us an opportunity to explore this issue. The exploration was based on a sub-activity of the FYA, which aimed to encourage the academic achievement of first-year students and to acknowledge the work of lecturers of first-year students. The activity involved inviting the 30 top-performing students across the University to a dinner hosted by the University's Rector. These students each nominated the lecturer who, in their view, made the most significant contribution to their academic success. The students were required to write a letter to the lecturer, explaining why he or she had had an impact on the student's academic performance. The lecturer, in turn, was required to write a letter of support and encouragement back to the student. These letters were then exchanged during the dinner. This initiative was extremely successful and well received, particularly among the academic community. The conversations that emerged during and after the event served as a catalyst for the study. These focused on the question 'what makes a good lecturer?' Our research, therefore, set out to explore the following questions:

1. What are the attributes of 'good' lecturers, as described by a group of academically successful students, and by the lecturers themselves?
2. How do the lecturers account for their development and continued performance as 'good' lecturers?

Before describing the research that we undertook, we present some of the key findings from the literature that guided the study, and illuminated our own understanding of what emerged from the data gathered during the empirical phase of the research.

Conceptualising 'good' lecturers

What *are* the attributes of successful lecturers of academically successful students? What qualifies one lecturer to be categorised as 'good' and another perhaps not? The literature on this topic spans several decades, and provides interesting responses to these questions. Yet it would appear that clear consensus as to a suitable definition remains elusive (Trigwell, 2001:65). Schön's seminal work on teachers suggests that '[A]s we consider the artistry of extraordinary practitioners and explore the ways they actually acquire it, we are led inevitably to certain deviant traditions of education for practice – traditions that stand outside or alongside the normative curricula of the schools' (Schön, 1987:15). Importantly, Elton (1998:3) suggests that '[T]eaching excellence is not a simple concept and, as a concept, lacks precision'. A further complexity is added when one recognises that simply listing a set of characteristics may be less useful unless consideration is given as to how such attributes might be acquired and grown (Kane, Sandretto & Heath, 2004:285).

Lists of attributes can be synthesised from the work of a number of recognised academic development practitioners. Citing work by Ramsden and others, Trigwell (2001:66) highlights that good teachers should:

- be good learners, prepared to learn from their own practice, through reflection;
- be enthusiastic about their subject;
- be aware of context, and teach accordingly;
- facilitate 'learning for understanding' by focusing on critical thinking and problem-solving skills;
- show that they are able to 'transform and extend knowledge';
- present clear goals, apply fair assessment methods and offer 'high quality feedback'; and
- demonstrate respect for their students.

This list also encapsulates the work of Chickering and Gamson (1991) whose principles of good practice in undergraduate education highlight a focus on student-centred learning. Good teaching is about student learning and about creating places and spaces for engagement between the teacher and the student and between the students themselves (Carpenter & Tait, 2001:193). However, the Trigwell summary moves beyond these principles and hints at the need for a more reflective approach towards one's teaching. Elton (1998:6) offers a clearer distinction discerning between what he terms, dimensions of competence (e.g. organisation, presentation, relationships

with students, assessment and evaluation), and dimensions of individual excellence (aspects of reflection, innovation, research with respect to one's teaching and 'being scholarly in one's discipline'). Here Elton (1998:6) suggests that while 'teachers should be competent in a number of these (dimensions of competence), but not necessarily all', teaching excellence should move beyond such competencies to include those of individual excellence. Wood and Harding (2007:940) caution that when defining good teaching one must not idealistically assume that any single lecturer would excel in all areas. Their study led to a comprehensive list of 'ten areas of excellence in teaching' focusing on the importance of acting as facilitator in the classroom, being innovative and scholarly (which they describe as 'publishing teaching ideas ... [and being] part of a community of teaching') and having an enthusiastic attitude. Their list also includes aspects of classroom practice, planning, organisation and course development.

The notion of dimensions of good teaching has been taken up in the work of other scholars. In a study that, like this one, drew on responses from academics, Kane *et al.* (2004) developed a five-dimensional wheel-like model that places subject knowledge, teaching skills, interpersonal relationships, the research/teaching nexus and the personality at the wheel periphery, with the hub being represented by 'purposeful reflective practice as a means to integrate the different dimensions' (Kane *et al.*, 2004:292). Although the context for their model is that of teaching in the sciences, it echoes Trigwell's earlier list to some extent, drawing out the importance of relationships more strongly. Again, like Elton, it highlights the role of scholarliness and research. The Kane model (Kane *et al.*, 2004:292), as shown in Figure 18.1, has influenced the framework used in this study.

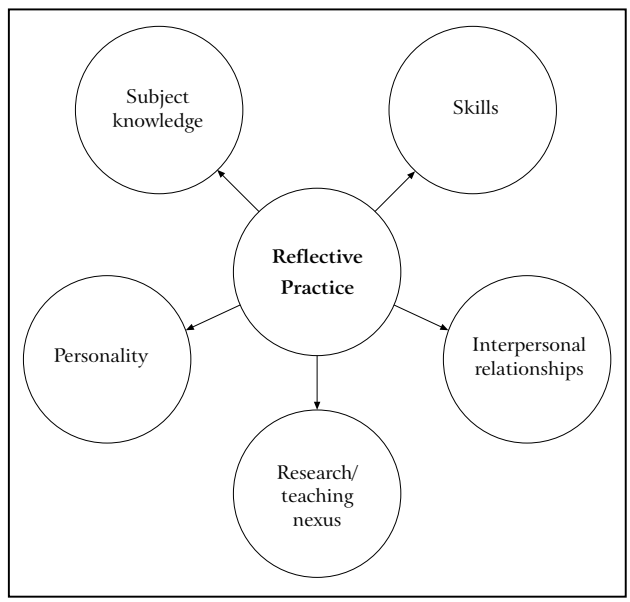

Figure 18.1 Dimensions of tertiary teaching (Kane *et al.*, 2004:292)

The descriptions of the different dimensions that Kane *et al.* provided are in many ways congruent with the attributes that other researchers have proposed. The importance of 'subject knowledge' is uncontested, having 'long being identified as a prerequisite of effective teaching ...' (Kane *et al.*, 2004:293). Similarly, the importance of 'interpersonal relationships' between lecturer and student has long since been acknowledged. Writing in the seventies, Hildebrand (1973:46) provided five components of effective teaching, two of which – establishing a rapport with the class to facilitate engagement and interaction, and the 'one-to-one' response – speak directly to this aspect. A third dimension, which encapsulates earlier and other understandings, is that of 'personality'. Kane *et al.* (2004:299) suggest that this dimension speaks to the 'person' of the teacher and echoes traits such as 'enthusiasm' (Hildebrand, 1973:46; Trigwell, 2001), dynamism (Hildebrand, 1973:46) and ability to inspire (Wood & Harding, 2007:944).

The notion of 'skills' in this model relates to pedagogic skill – what others have termed being able to 'put it across' (Hildebrand, 1973:46). This dimension encapsulates aspects of presentation, communication, formulation and methodology. Finally, the idea of the 'research/teaching nexus' completes the extremity of the wheel. This fifth dimension is both pivotal and complex. In the context of their model, Kane *et al.* would appear to be suggesting that being able to balance the relationship between teaching and research is what makes a 'good' lecturer. However, in their discussion of this dimension they themselves acknowledge the 'complex and idiosyncratic nature ...' of it. They argue that '[t]here is increasing support for the notion that university teachers do perceive there to be a definite link between research and teaching' (Kane *et al.*, 2004:298).

Simply listing the attributes of a 'good' lecturer is of limited value if the process of growing into and becoming such is not considered. Thus a second question must be posed: How does one *become* a good lecturer? In addition, one might argue, a desire to be a good lecturer ought to be implicit in such becoming. Thus it is necessary to explore factors that might motivate lecturers to adopt the attributes and behaviour patterns of a 'good' lecturer. In the Kane *et al.* model, 'reflective practice' is seen to be the hub around which the different attributes of good teaching arrange themselves and we would agree. Common (1989:385) points directly to the role of the teacher in shaping his or her own teaching excellence – 'Master teachers are not born; they *become* [our italics]. They become primarily by developing a habit of mind, a way of looking critically at the work they do; by developing the courage to recognise faults, and by struggling to improve'. It was Schön who gave life to the term 'reflective practitioner,' which describes 'the expert who is awake to, and aware of, their practice, not just immersed in it' (Mason, 2002:15). In seeking to theorise his understanding, Schön posited the notion of 'reflection-on-action' and 'reflection-in-action' where the former suggests thinking back on something that has already occurred, and the latter refers to being pointedly aware while engaging in a practice (Schön, 1987:26). However, is being a reflective practitioner an attribute, or is it a process that ideally leads to the enhancing or development of appropriate attributes? The answer to this may lie

in the response of a participant in the Kane *et al.* study: 'It's a continuous process of reflection and trying to do what you're doing as well as you can' (Kane *et al.*, 2004:300). Schön (1987:31) contends that 'reflection on our past reflection-in-action may indirectly shape our future action.'

Is reflection sufficient to shape good teaching? Supporters of the scholarship of teaching and learning (SoTL) movement would suggest that the need for a more scholarly understanding of that upon which one is reflecting ought to be of greater value (Kreber & Cranton, 2000). In addition, one might read a level of inevitability in Schön's understanding of reflection, in that it appears less focused and directed than is desirable to effect *appropriate* or *useful* future action. It is here where the notion of 'reflexivity' offers an additional dimension as it acknowledges the role of reflection '... but takes things further. Specifically, it problematises issues that reflection takes for granted' (Taylor & White, 2000:198).

It is also necessary to consider what leads an academic to become and to remain a good lecturer. Boyer (1990:xii) has stated that academics are 'drawn to the profession precisely because of their love for teaching ...' and other studies have argued that intrinsic motivators, such as interest in the work, the opportunity to interact with students and a sense of purpose in one's work, emerge strongly as indicators (McInnes, 1998). In fact, McInnes' study showed a high percentage of his academic respondents acknowledging that they were motivated 'almost solely by intrinsic interest in their work' (McInnes, 1998:165). The cycle of 'becoming' is important here, particularly as we see that one's love for the discipline and the desire to interact with students to share this passion provides space for establishing a social learning system or 'community of practice' (Wenger, 2000:226). The 'good' lecturer is the one who facilitates the student's progression towards becoming an 'insider'. This is of particular relevance for more vulnerable students. Importantly, however, interaction in this sphere can be meaningful for both the newcomers and the 'insiders', who themselves may change through being exposed to the knowledge and competence of the apprentice (Northedge, 2003; Wenger, 2000).

What about extrinsic motivators? Internationally and in the South African context, recognition for good teaching remains problematic, particularly at 'research-led' universities. Extrinsic rewards for teaching are few and far between, such that adopting a scholarly approach to one's teaching often has to make way for discipline specific research activities (D'Andrea & Gosling, 2005). As will be seen in the section that follows, the tension between teaching and research may inhibit the process of becoming. In this volume, Scott (Chapter 1) makes the point that if teaching and its outcomes are to be improved, it is necessary for a university's recognition and reward system to overtly acknowledge and value good teaching. Writing from a socio-cultural perspective, Trowler (2008) identifies the department, and within that the 'workgroup', as the most significant site for communicating what is valued and hence for offering such recognition. At the same time, however, Becher (1989) points to the intersecting influence of disciplinary cultures.

Our reading of the literature, mediated by our discussions after the initial set of interviews, led us to posit an adapted version of the Kane *et al.* model, in which we saw the notion of becoming as more encompassing and comprehensive than that of reflection. In this instance, becoming is influenced both by the individual attributes (being) as well as the socio-cultural contexts including the department, institution and disciplinary cultures. The importance of the influence that contextual factors (i.e. the socio-cultural context) have on becoming cannot be overstated. Disregarding the contextual influences severely limits the value of systematic reflection (Lea & Callaghan, 2008) thus inhibiting the process of becoming. Figure 18.2 depicts the revised model on which our research design was based.

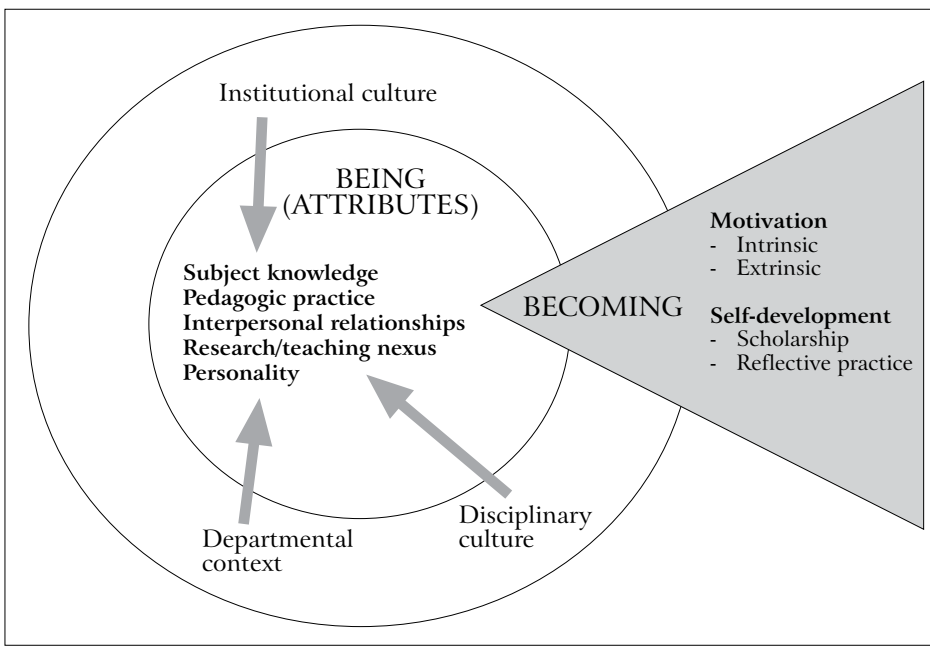

Figure 18.2 The 'good' lecturer

Research design

The research, conducted by a team of educational developers, was motivated by the need to answer various questions pertinent to our educational setting. In the first instance, we wanted to know how top-performing first-year students describe a good lecturer, and secondly, we wanted to know how the lecturers understand what they do to motivate and sustain their becoming and remaining good lecturers.

The approach is thus primarily qualitative, and emic, directing attention to specific cases in their natural settings (Denzin & Lincoln, 2005). It is 'interpretive' (Holstein & Gubrium, 2005), in that we sought to understand the phenomenon of being and

becoming good lecturers, as this is perceived and described by key actors: the lecturer and the student. It should be stressed that the participants were not selected according to a definition of a 'good lecturer' as defined by the research team or the literature, but rather, as perceived by the students who were asked to nominate the lecturer who made the most impact on their studies.

The research project utilised the following data sources:

- the written descriptions of their lecturers by 30 students from ten faculties; and
- transcribed audio-recorded semi-structured interviews with ten of the nominated lecturers, chosen according to predetermined criteria.

The criteria for selection were that the interviews should cover a range of categories, including: gender, levels of seniority, language and disciplinary clusters (Science and Technology; Humanities; and Business and Management). The list of interviewees and the interview questions are provided in Appendices 1 and 2. The data was analysed using content analysis. The interpretation of the data was more grounded and intuitive than deductive.

While coding the data from the interviews with lecturers, we noted that while there were evident trends amongst the views of interviewees, there were instances where lecturers stated opposing points of view. One example of this is the statement made by many of the lecturers that confidence and enthusiasm are important personality attributes. One even went so far as to say that 'if you are not confident, you should at least act as if you are' (Marcia).[1] In contrast, another lecturer stated categorically that it was important to 'be yourself' (Soo n), and that if you fake it, students will easily pick this up. Most of the pronouncements on good teaching made by the lecturers could be shown to confirm what is considered good practice in the literature and the University's policy on student-centred teaching, but there were also statements that could be shown to be in direct contradiction to this.

Findings

What was clear from the data was that notions of being (attributes) and becoming are interlinked. However, in the interest of clarity, we discuss these issues separately when reporting on our findings.

'Being' a good lecturer

According to our sources, what does the good lecturer look like? Our interviews displayed all the elements of good teaching outlined by Kane *et al.* (2004). However, it became immediately apparent to us that one cannot treat attributes of good teaching as isolatable elements. An example comes from the interview with Arnold, in which he was describing his disciplinary knowledge of Physics and at the same time, the value of Physics problems for pacing sequences, and for making the interaction appropriate for students with different levels of ability:

[1] All names are pseudonyms.

> Physics lends itself brilliantly towards problem solving, and the whole discussion about the how to approach a problem and how to solve it. Then you can proceed from a reasonably easy problem to a complex one, so I always try to achieve a balance between the two, that you provide challenges for the good student where you combine different concepts, and I must go back to things I did five weeks ago, and incorporate that in order to solve the problems. (Arnold)

Students also perceive the attributes as interrelated. This is demonstrated in the following extract from a letter from one of the top-performing students, whose comments contain evidence of appreciation for his lecturer's subject knowledge, pedagogic practices (high expectations) and personality attributes (enthusiasm and accessibility):

> Thank you very much that Professor handled the work so thoroughly that I never doubted what was expected from me in the module, that you never minded to help me out of class times. With Prof's thorough explanations and unquenchable passion for Prof's subject, you could do none other than to encourage my love for studies and awaken an intense interest in mathematics. ... In conclusion, can I say with gratitude that your accessibility, enthusiasm and excellent subject knowledge opened doors for my future and played a key role in my first year success.

Many comments by lecturers as well as students were devoted to the issue of personality and interpersonal relationships. For students, humour was an important attribute. There was also an acknowledgement that positive personality attributes alone are necessary, but not sufficient attributes of a good lecturer:

> But you can be as charismatic as you like, if you are not prepared and you're making it up as you go along, students ... pick it up immediately, 'we miss this here' and especially in mathematics, you must be so accurate and precise, but you must get beyond accuracy and precision, it must be there, the technique must be there, you must be able to relax out there, while you already have it, ... (Soon)

A facet of pedagogic practice which stood out in many of the interviews was the effort that the lecturers went to in order to prepare their lectures, or to produce coherent and comprehensible learning resource materials which would often be stored directly after the lecture on the electronic web system used at the University (WebCT).

The concept of the research-teaching nexus was also shown as linked to that of pedagogic practices. Welma provided an interesting account of research-rich teaching at first-year level, where she used data obtained from her research as resources in her teaching, and in so doing, promoted interaction in the lecture:

> The research I do, I make many videos, and I ask permission from the patients to use the video material in my teaching, and I always use practical examples, of babies and patients, and out of these video materials I can involve the class beautifully, with a good discussion session and I find it was more interactive.

Soon's participation in the broader mathematics disciplinary community provided him with a greater degree of understanding of the essentials of mathematics as a discipline, and hence, a better idea of how to teach the subject to first-years:

> See that you have a research trajectory in your field ... and do active research in it. Try to recruit postgraduate students, go to conferences, talk at conferences, hear what others say about your subject. I feel that if you do that, then you will be a better lecturer at first-year level. The deeper you get into mathematics, the better you would, as they say, see the wood for the trees.

These indications of the benefits of the research-teaching nexus are useful in guiding the lecturer of first-year students away from the notion that first-year teaching can be divorced from research or scholarship in general.

Focus on first-year issues

Our interviews suggest that the attributes of good lecturers of first-year students are not that different from the attributes of good lecturers in general, but that specific attributes and practices are emphasised in relation to the challenges generated by this context. The first challenge to which first-year lecturers need to respond, is that the classes are often large and the environment can appear impersonal and daunting. The students benefit from empathy and understanding from the lecturers. Some lecturers reported building bridges with students by pedagogic practices, such as learning students' birthdays and congratulating them in lectures (Christelle), as well as by encouraging and even instructing students to come and see them to discuss matters affecting them in their offices. This contact is also enhanced by lecturers' insights into the first-year experience:

> You are still struggling to find your balance between all these new things in your life, so I think a first-year lecturer must have sympathy with a student's steps on this journey to find balance in your life, so be very sympathetic with them in this regard. (Soon)

Several of the lecturers indicated that they were aware how important the beginning of the first year is and that they had to steer students towards facing this positively:

> It is their first meeting point with university life, that first year, especially the first lecture, but the first class, and what will happen there, will determine what will happen in the future. (John)

A second challenge responded to positively by many of the lecturers, was to teach groups who are varied, either in terms of ability level, or in terms of cultural, educational or geographic backgrounds. The interviews provided examples of lecturers acquainting themselves with the biographical details of their students, such as their matric results, or using problems in the class that refer to particular students' home contexts. John makes reference to the cultural heritage of his class, with examples of interactive learning techniques in the mathematics classroom. During the rugby world cup he used the example of a rugby ball and two students with rope in front of the class, to show how an ellipse is created.

In addition to making links with students' prior learning and contextual cultures, many lecturers made links to their professional futures, and in so doing, gave them a sense of direction, vision and of agency. Welma's students were shown research clips demonstrating phenomena the students would experience as professionals. The significance of linkages between a learner's past and future in order to enhance meaningful learning is underscored by Wenger:

> As trajectories, our identities incorporate the past and the future in the very process of negotiating the present. ... they provide a context in which to determine what, among all the things that are potentially significant, actually becomes significant learning. (Wenger, 1998:155)

The need to convey strong expectations, an attribute of good lecturers in general, was found to have strong purchase in the first-year context (Chickering & Gamson, 1991). One student wrote: 'Especially in my first year I was still inclined to be slack and just get through, but you awakened my ambition and pride, so that I finally spurred myself to greater heights.' Nicoline was one of the lecturers who specifically mentioned the importance of clear expectations. She said, 'It is important to state the privileges and expectations clearly at the beginning of the year.' This message was conveyed to the stronger students as well as to those who were struggling, as Christelle spent several hours counselling weaker students in her office, telling them that they, for example, were not working hard enough.

A final challenge to which these lecturers responded, was the need to induct their students into the discourse of their discipline, and into the practices required for successful study at university. Christelle used her awareness of the students' learning needs to integrate learning approaches directly into her first-year classes:

> [First-year students] do learn differently. I've had several students in my office here, who tell me it is so different for them to sit in class and take down notes, they never did that at school ... because they received the set of notes and that was all they had to study ... so the first thing is, how to take down notes, so you need to be aware of that, especially the first semester, ... so you have to teach them ... how to manage your time ... you have to teach them confidence, to be critical of issues, especially the Afrikaans-speaking students ... they are not accustomed to being critical.

Even top-performing students appreciated this guidance on how to learn, as this student wrote:

> You didn't only teach me the French language and culture, but also how to go about studying effectively, how to be persistent even when it looked as if success was unobtainable.

Thus, in addition to the general attributes highlighted earlier, with specific reference to the first-year lecturer, what emerged was the notion of the lecturer as guiding to the student into the new community of practice, and the idea of the lecturer as providing students with a bridge or stepping stone from one community into another.

Becoming a good lecturer

Our framework presents 'being' as if it were a stable component, whereas it actually is in a state of flux, interacting with 'becoming' a 'good' lecturer. During the analysis of the interviews, various forms of 'becoming' emerged.

Self-development

According to the lecturers, being a good lecturer comprises an element of innateness and talent: 'It's in your blood', Arno said. It is also partly learnt and hard work, as Soon says, 'It is to an extent instinctive and innate [and] you give yourself in-service training'. The interviews provided many examples of how and why the lecturers improved their own practice. Marcia, who had recently left the accounting world to become a lecturer, provided a reason for wanting to improve:

> And then I decided to come and teach here and then I realised, I don't know everything about teaching, I don't know what to do, I know my subject, but I don't know how to present this, and then I decided to go further with this.

A great deal of evidence was provided in the interviews of how the lecturers gave themselves 'in-service' training. These examples could all be clustered together as reflective practice. Lecturers were able to conduct reflection-in-action. For example, Christelle would see from students' body language whether they were getting tired and that she perhaps needed to change tack midway through the lecture. They also conducted reflection-on-action, using various sources at their disposal, for example student feedback. Two lecturers indicated that they cultivated a special relationship with the class representative, so that this student would be able to give immediate accounts of how the students were responding to the lectures. Patrick practised reflection in a particularly disciplined and systematic way:

> I work even harder to master, and to try and work out, after every lesson I go and think, okay where could I have done better, and where did I lose them, and where did I go too fast, and I try to make notes for myself, and I try to think how I could do it differently ...

Lecturers also deliberately sought out social opportunities to learn more about teaching. Christelle learnt a lot from chatting to colleagues and senior students in the tea room. John got an idea from an economics lecturer at a workshop, to invite guest lecturers to his classroom, and had already implemented this idea.

While most of the lecturers engaged extensively in various forms of reflective practice and self-in-service training, few engaged directly with the discourse of pedagogy as a means to become a better lecturer. Christelle and Soon expressed elements of embarrassment or frustration in the interview, because they could not articulate what they do well in theoretical terms. Christelle concluded her interview with the words, 'I think my frustration with a discussion like this is often that I can't give you anything scientific'. Only two of the lecturers, Marcia and Patrick, indicated an interest in

pursuing the scholarship of teaching by wanting to study further in this area. Marcia, for instance, said 'maybe I can become a guru in teaching accountancy'.

Andrianetta felt she had until recently taught instinctively, and began to become more reflective after engaging with an advisor in the Centre for Teaching and Learning:

> The moment that you become conscious that it is a good idea to reflect, and you involve your class, it unleashed new energy for me, to ask the class how it works, ... not only my teaching style, but in the end it has an effect on your method, your whole approach.

The fact that Andrianetta taught instinctively (and well) without being reflective, but really enjoyed becoming more reflective, suggests that good teaching can occur without reflectivity, reflexivity or the scholarship of teaching, but that these various forms of 'self in-service training' add value to the classroom experience, as well as to the motivation and energy of the lecturer.

Motivation

Most of the forms of motivation mentioned in the interviews were intrinsic, including a passion, even a 'love', for the discipline (Rowland, 2000). Another was interest or enjoyment of working with students. Marcia said she 'can't wait' to give her lectures, 'It is such fun for me' and she said about her students, 'I'm crazy about them'. A second and most compelling form of intrinsic motivation described in the interviews was a sense of commitment or vocation. Andrianetta explained that although her first love was for research rather than teaching, she felt that she owed it to her students to give them her best: 'Of course the strongest motivating factor for me is that I can't live with myself after I gave a lecture and if I don't feel that I truly gave them what is their due'. According to Biesta and Tedder (2006:27), sense of agency is related to situations in which 'people experience a calling, have a sense of vocation, or more generally feel that there is a certain 'theme' or 'direction' in their life to which they should respond'. Thus sense of vocation or commitment can play an extremely important role in motivating lecturers to become good, or in helping them to sustain their efforts in this regard.

Three extrinsic forms of motivation were mentioned: support, for example, from the Centre for Teaching and Learning; awards, for example, the Rector's Award for Teaching Excellence; and the prevailing departmental and institutional culture, and acknowledgement (or lack thereof) of the value of undergraduate teaching. Many of the lecturers we interviewed had received one or other teaching award in the past. Four out of the ten had received the Rector's Award for Teaching Excellence itself, and some had received other awards in addition. They indicated that this nomination from the students had more significance for them, as it came from students rather than staff, and presumably because of what the top-performing students said about them in the letters. Marcia echoed the sentiments of other lecturers:

> This is for me one of the biggest compliments that I have ever received from this university, it is worth more than sending my portfolio to the Dean for the Teaching Award, ... but to get it unasked for from a student

> and then even more so from a top student, shocked me, ... I often feel I do not do enough for the top students, because you focus so much in the class on the struggling students.

With regard to support – for example, workshops on teaching – lecturers did express appreciation for this, but almost as many indicated that they do not take up this support because of time constraints and pressure to publish in discipline-related forums. This pertains to the third form of extrinsic motivation, which was described as a negative by many of the lecturers: the relative absence of a pervasive culture of valuing the teaching and teachers of undergraduate students. This was given as a reason why some did not attend teaching-enhancement workshops or conferences. Lack of recognition of undergraduate teaching was attributed to the institution in general, as well as to the prevailing norms and attitudes in the faculty or department. Trowler and Knight (1999:185) point to the importance of this matter in supporting good teaching when they write 'HEIs seeking to improve their socialisation practices ought to look not so much to the provision of formal learning opportunities, (although they have a part) as to the cultures of academic departments'.

Conclusion

The interviews have allowed us a powerful glimpse of how lecturers understand their strengths and perceive their value. In seeking to understand what lies behind these conversations, however, one must be aware of the difficulty of 'capturing the impalpable ... the tacit and knowing and feelings' (Trowler, 2008:162) and translating this into hard and fast data. The interviews have demonstrated that what is described as good teaching by lecturers of first-year students is not untypical of good teaching in general, but it also suggests that certain challenges and needs are accentuated at this level. It does not appear that addressing the needs of top-performing students occurs at the expense of other students, but in fact, the converse might apply. For the lecturers, becoming and remaining good lecturers, is both innate and intuitive, as well as learned. It is also a combination of an internally, or intrinsically motivated process, as well as a socially situated phenomenon, influenced most powerfully by the social contexts beyond the borders of the classroom. This process of becoming is further mediated by the expectations and challenges generated by the students themselves.

A note of optimism and encouragement provided by the interviews is the idea that it is indeed possible to teach well to large, and diverse classes, and that one can establish elements of contact in these settings. What remains of concern, however, is how to support good lecturers, and how to share what they do with other lecturers. The interviews indicate that aspects of the prevailing culture require attention, so that the ecology within which lecturers work, allows them to flourish.

Our research suggests that, as argued in our introduction, teaching is not a simple concept, and it is not something that one can capture with a static or unvarying set of characteristics. The characteristics can however, be clustered according to the dimensions provided by Kane *et al.* (2004). The understanding of becoming presented here differs from 'reflective practice' in that we have understood 'reflective practice'

to be a more all-encompassing phenomenon that we have labeled as 'becoming'. Our understanding of 'becoming' is that it comprises motivation, as a powerful drive, as well as what we have called 'self in-service development'. Our understanding of becoming differs in that becoming is not solely an individual trajectory. It is strongly situated within the social settings in which a lecturer lives and works. Our model of becoming, therefore, incorporates the social and cultural influences both the lecturer and the student bring to the teaching and learning situation, as well as the pervasive contexts of culture of the department and faculty, institution or discipline.

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Appendix 1: Lecturers interviewed

Pseudonym	Cluster	Seniority	Gender
Christelle	Humanities	Professor	Female
Nicoline	Humanities	Senior Lecturer	Female
Andrianetta	Humanities	Senior Lecturer	Female
Arno	Economics and Management Sciences	Lecturer	Male
Marcia	Economics and Management Sciences	Lecturer	Female
Patrick	Economics and Management Sciences	Lecturer	Male
Welma	Science, Technology and Health	Lecturer	Female
Soon	Science, Technology and Health	Professor	Male
Arnold	Science, Technology and Health	Senior Lecturer	Male
John	Science, Technology and Health	Senior Lecturer	Male

Appendix 2: Interview questions

1. What makes you a successful lecturer (of top-performing first-year students)? *Prompt*: focus on the lecturer in the learning context; how are you different from other first-year lecturers; what do you do; what do you do outside of the actual lecture situation?
2. What steps have you taken, over the years, to enhance your teaching (of top-performing first-year students)? *Prompt*: focus on the lecturer's own professional development, whether they have changed over the years, and how they manage the teaching role in relation to work-related and other pressure.
3. What is particular about teaching first-year students and how they learn?
4. What was the significance of your nomination for you?

INDEX

The importance of the first-year experience is now well recognised. This collection of papers makes a fascinating and important contribution to our understanding of students' transition to higher education. This is a scholarly, engaging and illuminating text, that is relevant not only in the context of South Africa, but for anyone interested in student learning in the first year of university education.

David Gosling, Plymouth University

The book will have immense value for all curriculum and teaching and learning specialists in higher education, those based in national agencies, in the centralised teaching and learning-related units of universities, and in particular faculties, departments and developmental projects.

Terry Volbrecht, Cape Peninsula University of Technology

I see it serving as an important resource for those who are concerned with the significance of the first-year experience for the diverse groups of students who enter South African universities for years to come.

Chrissie Boughey, Rhodes University

[T]his is an important contribution to the debates on the first-year experience and will be of interest to practitioners, university managers and policy makers.

Nasima Badsha, CEO: Cape Higher Education Consortium

This work provides a theoretical and practical vision for how to improve South African and all nations' first-year university student learning, success, retention and ultimately degree completion rates: a must read for the higher education reformer.

John N. Gardner, President, John N. Gardner Institute for Excellence in Undergraduate Education

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