ENGAGING STUDENTS

Using Evidence to Promote Student Success

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The Editors

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PREFACE

What would a transformed higher education system look like? What is the contribution of higher education institutions to a country? How do we create institutions that are ready to welcome a diverse range of students? How do we create institutions that challenge our students to develop the next big idea and address 21st century challenges while providing them with the support that enhances their chances of success?

The Department of Higher Education and Training (DHET) supports the contention of

> the true meaning of transformation – when all students entering the system have a reasonable chance of success and access to powerful forms of knowledge and practices that will enable them to enter the productive economy and improve their life chances and that of their families (DHET 2016:92).

During a student success conference in 2016, a vice-chancellor from a South African university observed that the higher education system has always had low success and graduation rates. The necessity to identify a key contributing factor to student success, which could be measured and used in conjunction with other data sources to guide interventions, put student engagement on the South African radar.

The journey for the study of student engagement in South Africa started a decade ago with the first full institutional survey in 2007 at the University of the Free State (UFS) to change this track record. From its inception, the focus was on supporting and developing the talented students of South Africa through the use of evidence, and the project aimed to create deeply contextualised measures that were globally benchmarked. The intention of the original United States-based student engagement survey of countering an obsession with rankings by refocusing the quality of higher education debate on students and their learning resonated strongly with the South African team.

In 2007, the concept of student engagement was not well known in South Africa, even though it was firmly established in the United States. Interest in this field of research came into national focus after the Council on Higher Education commissioned a national project on student engagement to better understand what it is that students do while they are at university and how this might impact on their success. This initial project ran from 2008-2009 and included 11 institutions. After a review of the student engagement measure internationally and nationally, the Kresge Foundation provided funding to take the project into its next level of development, which currently involves four surveys adapted for the South African context administered in 15 public higher education institutions, with a growing number of private higher education institutions participating and showing interest.

The project provides a data-driven depiction of student experiences, which could be used by institutional leaders, academics and support staff to create conditions that impact student development and success. In some cases, institutions have used the data to facilitate change, and in other cases operational demands and changing institutional priorities have overtaken the importance of the use of the data.

Throughout the development of the project, being a student in South African higher education has not become easier, with increasing financial pressure, decreasing state expenditure and increased accountability on how state resources are spent and how they are contributing to the development of the country. The #MustFall campaign of 2015 and 2016 highlighted the need for a realignment of students and their institutions. We believe that knowing what and how students learn, and what they are able to do as a result of their higher education experience, are critical for the success of the North American as well as South African higher education systems. Student engagement data represent the student experience in our institutions and classrooms today. By using the data institutions empower students as agents of change and involve them in obtaining a quality education that will transform not only the institution but also their lives.

PURPOSE OF THIS BOOK

This publication has the dual aim of contributing a South African perspective to a rich history of conceptual and empirical research on student learning and success, while also showing how student engagement data form a bridge between academic research and professional practice (McCormick, Kinzie & Gonyea 2013). To achieve the dual aims, evidence from the South African surveys of student engagement and leading international experts have been integrated to:

- introduce student engagement as a field and a key to success;
- further a systemic understanding of the student experience;
- illustrate how entering students can be better understood and supported;
- facilitate the development of academics through student engagement;
- stimulate the development of South African high-impact practices;
- illustrate how student engagement evidence can be leveraged for institutional change and improvement;
- explore the role of student affairs in student engagement and learning;
- highlight the role of institutional leadership in advancing student engagement;
- promote pedagogical practices that matter for student success; and
- demonstrate how we are using engagement data for change and empowerment at course level.

We close by taking stock of student engagement in South African higher education and sharing the plan moving forward with the variety of stakeholders who are committed

to improving student success and the effectiveness and efficiency of higher education. They include governmental, public and private institutional stakeholders, as well as intra-institutional faculties, departments and individuals. The content will also be of interest to both researchers in higher education as well as leaders and practitioners who would like to integrate evidence into their institutional roles.

HOW TO READ AND USE THIS BOOK

The book consists of three parts, complemented by an introduction (Chapter 1) as well as the summary chapter (Chapter 11) that includes some reflections and recommendations.

Part I provides a status report on student engagement in South Africa. Chapter 2 shares data from the South African Survey of Student Engagement (SASSE) to provide a systemic perspective on the experiences of students in higher education. Chapter 3 shares data from the Beginning University Survey of Student Engagement (BUSSE) on the expectations of first-year students and contextualises the data using the financial stress scale introduced in SASSE 2016. The next chapter explores lecturers' perspectives on student engagement using data from the Lecturer Survey of Student Engagement (LSSE). The chapter considers similarities and differences between student and staff perspectives and discusses the implications for staff development. This section of the book closes with Chapter 5, which introduces the development of high-impact practices in the South African context, and shares SASSE data on the prevalence of these practices.

Part II of the book presents perspectives about how to create institutional conditions that matter for student success. Chapter 6 shares strategies for leading evidence-based improvement through student engagement by using different 'roles' or designations as an international vehicle for engaging people in evidence-based change. Chapter 7 addresses the role engagement data can play in assisting student affairs to advance student learning. The critical importance of learning and involving managers at all levels in promoting student engagement, as well as practical suggestions on how to do this are explored in Chapter 8.

Part III shifts the focus to teaching and learning and how conditions for success can be created in the classroom. Chapter 9 explores the potential impact of effective or high-impact pedagogical practices on student success. Chapter 10 demonstrates how student engagement data from the Classroom Survey of Student Engagement (CLASSE) can be used to promote evidence-based improvement in pedagogy at the course/module level as well as evidence-based academic staff development.

NOTES ON TERMINOLOGY

Because this book has been authored by South African and United States scholars, some terms or concepts might need clarification:

- In pre-democratic South Africa, racial groups were divided into "Indian", "black", "coloured" and "white". To track transformation and equity interventions, these groupings are still used in research circles. However, during the contextualisation process to adapt the engagement surveys to the South African contexts, students were given a choice which racial classification categories they would prefer to have in the surveys. The options they selected include "black African", "coloured", "Indian", "white", "other", "mixed-race", and "I prefer not to answer". Analyses throughout the book primarily rely on comparisons between black African and white students. This is because samples representing the other groups are small in comparison to black African and white groups who participated in the surveys.
- The term "first-generation" refers to whether students are the first in their immediate families to graduate from university.
- US references to "colleges", "courses", "faculty" (academic staff) have for the most part been changed to jargon more familiar to a South African audience, however, some references to these terms have been left unchanged to preserve the intended meaning the authors tried to convey.
- In the United States, reference to "sample" indicates the whole population from which respondents were selected/volunteered. However, when using the word "sample" in this text it refers to the respondents participating in the survey, and not the broader population which the sample forms part of.

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1 STUDENT ENGAGEMENT: A KEY TO SUCCESS

Francois Strydom

May your choices reflect your hopes, not your fears – Nelson Mandela

INTRODUCTION

Expanding access to higher education and increasing students' chances of success are two of the critical challenges facing global higher education. Of the many access challenges, affordability of higher education has taken centre stage in many countries, with large-scale protests taking place in South Africa. The protests are complicated by the fact that higher education researchers acknowledge that students are among the groups least informed about higher education (choices, outcomes and processes) (Mahat & Goedegebuure 2014). Therefore, it is vital that higher education institutions understand how students think, behave and learn as well as what they are able to do after higher education (Coates & McCormick 2014; Kuh *et al* 2015).

This book aims to show how student engagement data can further an evidence-based understanding of the time and effort students expend in using the resources that institutions provide for their learning and personal development and how institutions can use student engagement data to improve conditions that support student success. The chapters provide university leaders, academics, support staff and policy makers with insights on how to promote student engagement. Focusing on student engagement promotes student agency by bringing a data-informed student perspective to institutional planning and higher education policy development. In addition, student engagement data allow institutions to promote effective educational practices aimed at enhancing the chances of success for all students and reducing the inequalities in our societies.

THE CASE FOR STUDENT ENGAGEMENT

This section offers some reasons for promoting student engagement at all levels.

Student engagement facilitates success

Higher education research indicates that some of the best predictors of whether or not a student will graduate are academic preparation and motivation (Pascarella & Terenzini 2005). Unfortunately, the only possible way to control these two variables is to employ more stringent admission and/or selection policies. This is, however, not a viable alternative in a century where, internationally, higher education institutions are obligated to enrol more students from increasingly diverse backgrounds to meet the skills needs of the knowledge economy. Nor is it a fair alternative in highly unequal societies such as South Africa, where access to university could have life-changing consequences for those who have been excluded from such opportunities in the past. Years of research into effective higher education institutions in the United States point to a third factor that, at least marginally, can enhance the prospect that students will survive and thrive after entering higher education. Several decades of evidence suggest that after controlling for student background characteristics, student engagement (i.e. students devoting their time to educationally purposeful activities) is also a significant predictor of their satisfaction and success (Kuh, Kinzie, Schuh & Whitt 2010; Mayhew, Seifert, Pascarella, Nelson Laird & Blaich 2012). Student engagement also benefits underprepared students to a greater extent, thereby enhancing their chances of success (Kuh, Cruce, Shoup, Kinzie & Gonyea 2008).

Student engagement research and practice is a global interest

Figure 1.1 illustrates how focusing on student engagement has spread across the globe.

The major source of engagement measures come from the National Survey of Student Engagement (NSSE), which has been contextualised in different countries. The dark shading represents established and cross-institutional data collection. The lighter shading indicates a one-time trail of emergent implementation that involve a smaller number or in some cases individual institutions (Coates & McCormick 2014). The broad use of this assessment tool has facilitated the development of an international network and has also created a bridge between conceptual and empirical research on student learning and development, as well as practical demands of assessment and improvement to enhance the quality of undergraduate education (McCormick, Kinzie & Gonyea 2013).

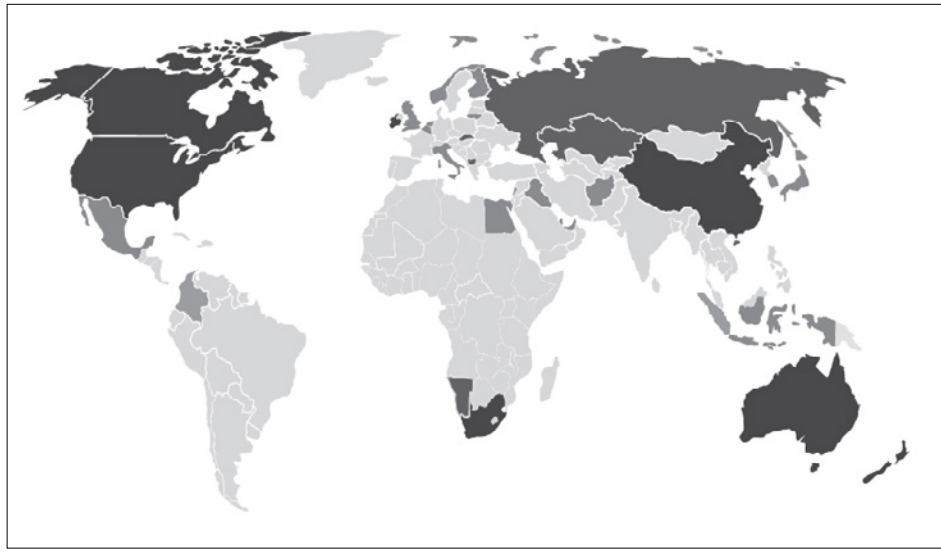

FIGURE 1.1 Mapping student engagement across the globe

Student engagement provides reflection and accountability on education processes

For better or worse, rankings are firmly ensconced in perceptions of the quality of higher education across the globe. The shortcomings of these rankings have been laid bare from philosophical and methodological perspectives (Gladwell 2011); a common thread in these critiques is that ranking emphasises reputation and input measures rather than teaching and learning (Kuh 2001, 2003). The NSSE was developed in response to ranking in order to intentionally focus on process indicators, or 'good practices' that prior research has related to desirable student outcomes (McCormick *et al* 2013). Student engagement measures provide data from the field in the form of an actionable evaluation of the institutional environment and the quality of student learning, which can be used to address accountability pressures and assess educational quality at institutional level and concerns about student success while contributing to the development of the scholarship of teaching and learning (McCormick *et al* 2013). In the South African context, the South African Survey of Student Engagement (SASSE) has been cited as a tool that can be used to enhance the quality of teaching and learning (Council on Higher Education [CHE] 2015, 2016).

DEFINING STUDENT ENGAGEMENT

Student engagement is defined in terms of two key components. The first is the amount of time and effort students spend on academic activities and other

activities that lead to the experiences and outcomes that constitute student success. The second is the way that institutions allocate resources and organise learning opportunities and services to induce students to participate in and benefit from such activities (Kuh *et al* 2010). Put differently, student engagement can be defined by two key components: first, what students do (the time and energy they devote to educationally purposeful activities), and second, what institutions do (the extent to which they employ effective educational practices to induce students to do the right things academically) (Kuh 2001).

THEORETICAL AND EMPIRICAL FOUNDATION OF STUDENT ENGAGEMENT

What differentiates student engagement measures from other measures is its laser-like focus on activities and experiences that have been empirically linked to desired outcomes in higher education (NSSE 2000). Student engagement spans the fields of psychology, sociology, cognitive development and learning theory, and is linked with a long tradition of impact research (McCormick *et al* 2013). The roots of student engagement can be traced back to the educational research that emerged as early as the 1930s with Tyler's focus on the importance of the amount of time spent on academic tasks (Merwin 1969) and later longitudinal research by Pace (1980, 1984, 1998) into the effect of quality of effort on desired student outcomes (Kuh 2009) underlining the importance of student agency. This is shown by the following quote:

> We have typically thought of educational processes in terms of what they contribute to the product; but we know that some processes are qualitatively better than others, just as some products are better than others, so perhaps we should give more thought to measuring the quality of the processes. One motivation for my desire to measure student effort was the recurring rhetoric about accountability that always blamed the institution for outcomes ... This assumes that the student is buying a product when actually the student, at a later point in time, is the product. So, the other side of accountability is the quality of effort students invest in using the facilities and opportunities the college provides (Pace 1998:28).

Over the course of more than 30 years, Astin's research on student involvement (1984, 1977, 1993, 1999) has confirmed that any form of student involvement (the amount of physical and psychological time and energy the student invests in the educational process) is positively associated with a wide variety of academic outcomes. In fact, one of the primary findings in *How College Affects Students* (Mayhew *et al* 2016), is that the time and energy students devote to their own educational experience relates directly to student success. Student engagement scholarship places a strong emphasis on student involvement in learning in terms of

the quality of effort, as well as time spent on tasks. It is important to mention that in addition to pointing to behaviours, students need to engage in both. Astin and Pace both emphasised that institutions play an important role in creating environments that enable students to induce these behaviours (McCormick *et al* 2013). Vincent Tinto's theory on academic and social integration was one of the first theories to emphasise that both the student and the institution had a role to play in keeping students from early and voluntary departure from higher education (Tinto 1986). In short, Tinto highlighted the role positive academic or social experiences could play in creating a sense of belonging within institutions, while negative experiences in these areas might lead to a sense of disconnect or isolation for the student.

However, Kuh (2009) explains that student engagement extends beyond students' time and involvement in their studies towards examining the extent of student participation in effective educational practices, as outlined by Chickering and Gamson (1987) in their landmark publication *Seven Principles for Good Practices in Undergraduate Education*. In this publication, Chickering and Gamson present seven principles that encompass what students should be doing during their undergraduate education to optimise their personal development and to promote effective learning. The primary premise of their work is that when students and staff take the responsibility to devote time and effort to tasks related to these principles, student learning and success will improve (Kuh & Vesper 1997). The principles are: student-staff interaction, cooperation between students, active learning, prompt feedback, time on task, high expectations of students, and lastly, respect for diverse talents and ways of learning. These widely researched principles continue to influence teaching and learning practices globally (Kuh & Vesper 1997) and recently published national longitudinal projects in the United States have confirmed the continued importance of implementing them (Blaich & Wise 2011).

Recent developments in higher education highlight the importance of 'high-impact practices'. Involvement in these practices or activities has been shown to advance capabilities in areas such critical thinking, solving real-world problems and working effectively with others regardless of the background from which students come. Examples of these activities in the United States context include community service learning, being part of learning communities, undergraduate research, internships, capstone/culminating projects, and study abroad opportunities (Kuh 2008). These activities are explored in greater detail in Chapter 5.

Having reflected on the theoretical and empirical foundation of student engagement, our focus moves to how student engagement facilitates the development of a conceptual framework to put together the puzzle of student success.

PUTTING TOGETHER THE STUDENT SUCCESS PUZZLE

Figure 1.2 presents a framework for understanding student success as a wide path or perhaps a direct path in which students work, but where there can be many twists, turns, detours, roundabouts and occasional dead-ends (Kuh, Kinzie, Buckley, Bridges & Hayek 2007:10), instead of the usual pipeline understanding of students entering and exiting education systems. Students can therefore enter at a specific time but exit, due to financial pressure or employment opportunities and return later to study further.

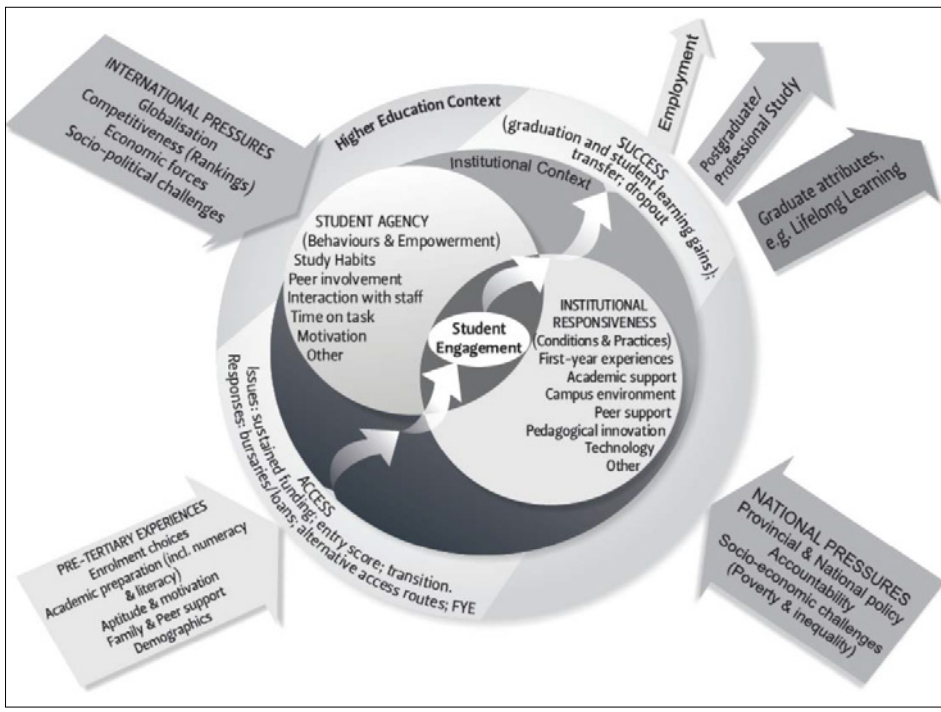

FIGURE 1.2 Contextualised student success framework

The arrow (left-bottom corner) summarises some of the many pre-university experiences students enter higher education with, such as family background, academic preparation, attitudes to university readiness, family and peer support, and motivation to learn. Within the South African context, addressing the low levels of

language and numerical competence of learners exiting the secondary school system is a critical challenge leading to proposals for flexible curricula and programme structures, such as the four-year degree, to allow for innovative solutions.

Some of the issues related to access to higher education include affordability and sustained funding, entry requirements and challenges associated with the transition into higher education. In South Africa, responses to these issues or challenges have been bursaries or loans, National Student Financial Aid Scheme (NSFAS) support, and now the Ikusasa Student Financial Aid Programme (ISFAP), as well as alternative access programmes. Also in the South African context, alternative access routes such as bridging and foundation programmes (extended degrees) as well as Recognition of Prior Learning (RPL) have helped to broaden and mediate entry into higher education. If learners are able to navigate these transitions successfully, they enter the 'traditional' higher education environment.

The next part of the educational journey consists of a student's university experience, namely: student behaviours and institutional conditions. Student behaviours include study habits, peer involvement, interaction with staff, time on task and motivation. Institutional conditions include resources, educational policies, programmes, practices and structural features. Student engagement, at the intersection of these behaviours and conditions, represents aspects of student behaviour and institutional conditions that universities have influence over, at least marginally. All the factors are intertwined and affect what students do during their time at university. Research into student retention shows the need for creating a more supportive mainstream environment for students rather than through access programmes, which underlines the importance of a focus on student engagement (Letseka, Cosser, Breier & Visser 2009).

The arrows at the top-right hand corner represent successful student progress and the outcomes that higher education aims to deliver, namely, employable graduates, professional and/or postgraduate study and graduate attributes such as leadership and citizenship. By focusing on student engagement and using student engagement data, institutions can assess the prevalence of student behaviours and institutional conditions related to success use the data to develop interventions that can channel student energy to activities that matter to their success.

Having reflected on the importance of student engagement within the success puzzle, the next section provides a more in-depth discussion on the measurement of student engagement.

MEASURING STUDENT ENGAGEMENT

Since student engagement incorporates behaviours and perceptions, the 'measures' items gauge both these dimensions. Figure 1.3 shows how they are manifested in the specific measure.

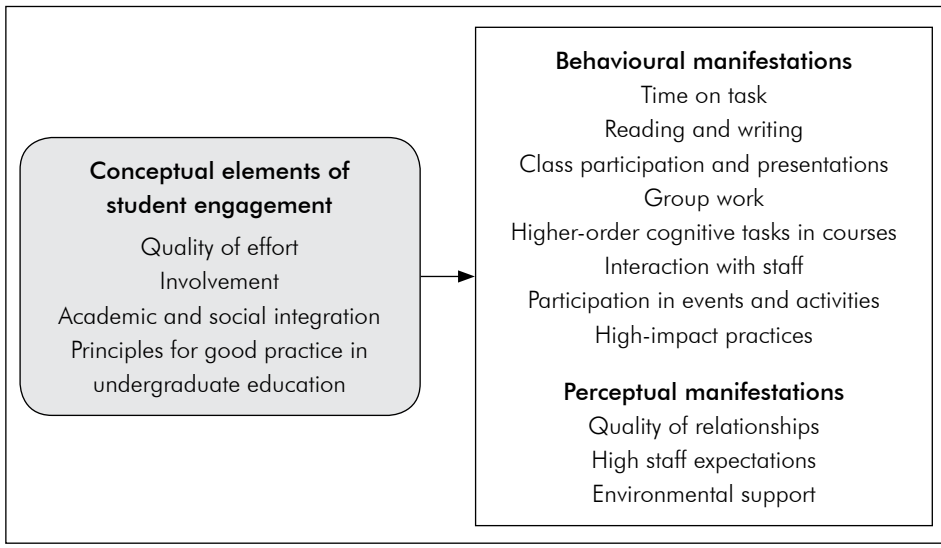

FIGURE 1.3 Conceptual elements of student engagement and selected manifestations

The strong focus on measuring student behaviour differentiates the student engagement survey from other student experience measures, which tend to focus on values, attitudes or student satisfaction. The focus on behaviour allows for institutions to develop concrete and actionable interventions to target and change students' behaviour. Additional strengths of the student engagement measures, which also promote quality research, include: the standardisation of survey sampling and administration to facilitate comparability between institutions; and providing participating institutions with comprehensive reports detailing their own students' responses relative to those at comparison institutions, plus an identified student data file to permit further analysis by the institution.

Developing the South African Survey of Student Engagement

The piloting and development of the first version of the South African Survey of Student Engagement (SASSE) took place in 2006. The first full administration took place during 2007 with 752 students responding (Strydom, Kuh & Mentz 2010). The initial contextualisation of the measure included only slight adaptations from the NSSE.

This was to ensure that the vocabulary used was applicable to the local context. For example, words such as "college" were changed to "university"; "faculty" changed to "lecturer", and so on. The original NSSE instrument is only available in English and to optimise its use in the South African context it was translated into Afrikaans. Back-translation was done to ensure the content validity of the Afrikaans version. Afrikaans was selected as an alternative language for this instrument since it is a formal language of instruction at several other South African universities, including the University of the Free State (UFS), where the administration of the South African engagement surveys takes place.

Two of the items in the NSSE were changed entirely in the SASSE 1.0. They were:

1. "Which of the following have you done, or plan to do before leaving your institution? Participate in a learning community or some other formal programme where groups of students take two or more classes together."

   This item was changed to:

   "Which of the following have you done, or plan to do before leaving your institution? Participate in academic student societies (law, psychology, and so on) where students engage on topics related to their subject."

   This change was proposed due to the more structured nature of degree programmes in South Africa. The proposed item attempts to measure student involvement in enriching academic activities.

2. "Which of the following have you done, or plan to do before leaving your institution? Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, and so on)." This item was changed to "Which of the following have you done, or plan to do before leaving your institution? Develop a community project in which you use your university knowledge to address a problem in your community."

   The rationale for this change was that the South African higher education environment does not have culminating senior experiences. A community project would provide the student with an integration and application opportunity and would also align teaching and learning with the important South African higher education policy objective of community engagement (Strydom *et al* 2010).

As with all self-report measures, the questions or items in these measures must be formulated in a way that enables the participants to respond to the survey designers' intent. Based on research into self-report data – and used as a guideline to track

validity of the contextualised surveys – researchers identified the following conditions that are conducive to the validity of self-report measures:

- The information requested is known to the respondents.
- The questions are phrased clearly and unambiguously.
- The questions refer to recent activities.
- The respondents think the questions merit a serious and thoughtful response.
- Answering the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways (Kuh, Hayek, Carini, Ouimet & Kennedy 2001:9).

SASSE 2.0: Deeply contextualised and globally benchmarked

Following a national study sponsored by the Council on Higher Education in 2009-2010, the SASSE instruments were subjected to an extensive review. This was to:

- ensure continued contextual relevance of the measure for the improvement of teaching and learning;
- maintain alignment with international review of measures;
- refine problematic items;
- enhance the quality of data collection, analysis and reporting processes;
- maximise the collection of 'useful' data in the South African higher education context; and
- broaden our knowledge and understanding of the student experience in the South African context.

The SASSE review process included inputs from institutional representatives who participated in the study and analysis of data from national administrators of the survey. It incorporated experiences of the research team that worked on the project, as well as the inputs of eight South African higher education experts and an international expert. To facilitate deep contextualisation, qualitative research was conducted at five institutions, in four provinces. In total, 68 students participated in individual interviews and 80 students in focus groups.

The review processes resulted in sets of new, updated and continuing items. These were rigorously tested and grouped within several Engagement Indicators, organised within themes adapted from the former Benchmarks of Effective Educational Practice. Therefore, indicators focused on important aspects of educational quality, making them specific and actionable.

RANGE OF UPDATED STUDENT ENGAGEMENT SURVEYS AVAILABLE IN SOUTH AFRICA

A range of student engagement surveys has been developed and contextualised for use in South Africa since 2007. These instruments enable institutions to monitor and develop capacity at an institutional, as well as individual course or module level, as shown in Figure 1.4.

Institutional-level measures	
Beginning University Survey of Student Engagement (BUSSE) The BUSSE measures entering first-year students' pre-university academic and curricular experiences and their expectations regarding participation in educationally purposeful activities during their first year at a tertiary institution.	
South African Survey of Student Engagement (SASSE) The SASSE gathers comprehensive information relating to the extent of student participation in effective educational practices as part of the teaching and learning experience.	
Lecturer Survey of Student Engagement (LSSE) The LSSE measures lecturer expectations regarding student engagement in educational practices that are empirically linked with high levels of learning development.	
Modular/Course-level measure	
Classroom Survey of Student Engagement (CLASSE) The CLASSE measure was developed to provide institutions with a diagnostic tool with which they are able to intervene in courses with high dropout and failure rates and creates an evidence-based approach to academic staff development. • $CLASSE_{Lecturer}$ asks the lecturer of that module/course how important the various educational practices are for facilitating student success. • $CLASSE_{Student}$ asks students how frequently they engage in various educational practices within a specific course.	

FIGURE 1.4 Contextualised student engagement surveys available in South Africa

BENEFITS OF USING STUDENT ENGAGEMENT SURVEYS AND DATA

This section explores what institutions can learn from student engagement surveys and how the data can be used to empower students, academics, support staff and management.

Facilitates better understanding of contemporary students

Understanding students has become essential to 21st century higher education. Kuh *et al* (2015) point out that understanding what students know and are able to do are fundamental to student success and to the quality and effectiveness of higher education. In South Africa, student protests have emphasised the need for more research to understand students. With vital contributions from national and institutional student engagement data, we have been able to identify areas where we need to understand students better. These include:

- The need for greater academic differentiation between first-year and senior students.
- Determining appropriate levels of academic challenge.
- Understanding the financial stress students are under.
- Understanding student expectations.
- Scrutinising how students learn, use support, and are taught.
- Identifying and implementing high-impact practices for co-curricular learning and development.
- Impacting academic staff development and pedagogical practices through data-driven conversations (Strydom, Oosthuysen, Hen-Boisen, Henn & Posthumus 2015).

Provides actionable data for improving student retention and progress

More than a decade of research shows that in the United States student engagement "has significant positive, though modest, relationships with grades and persistence for students from different racial and ethnic backgrounds, even after controlling for a wide range of key precollege variables" (McCormick *et al* 2013:65). These positive effects are stronger for first-year grades and persistence to the second year for underprepared and historically underserved students (Kuh *et al* 2008).

In the case of senior students, increased participation in effective educational practices exercises a small yet positive impact on the academic performance, while higher levels of engagement in the early years of college have a compounding effect on students' grades at a later stage of their higher education experience (Kuh *et al* 2007).

In the South African context, studies have started to find a positive relationship between academic achievement and student engagement. Swart (2014) found a positive relationship between 22 items associated with high-impact pedagogical practices and academic achievement amongst commerce students. Schreiber and Yu (2016) found that student engagement patterns are reliable predictors of academic performance.

Helps to identify constraints in the teaching and learning environment

Student engagement surveys provide student self-report data on the extent to which students engage in educationally effective practices and the extent to which the institution makes use of these practices. Analysis of the data provides an institution with information about the extent to which students are engaged in effective educational practices such as studying, reading, tutoring, asking questions in class, to name a few. The same student engagement data set could be used to provide feedback on the extent to which students experience the institution as supportive, and their classroom as providing active and collaborative learning opportunities. Therefore, student engagement data can be used to develop interventions at either the student or staff levels to address practices that might constrain teaching and learning. When combined with data from the Lecturer Survey of Student Engagement (LSSE), the data provide institutions with a student and staff perspective on engagement as well as information on how staff say they are spend their time. This helps to provide a richer picture of possible constraints to good teaching and learning at the institutional level and across the higher education sector. Chapter 4 explores the staff perspective in greater detail.

Facilitates the creation of high-impact curricula

As mentioned earlier, the identification of high-impact practices is one of the more recent empirical contributions from the field of higher education. Examples of these activities in the United States context include community service learning, being part of learning communities, undergraduate research, internships, capstone/culminating projects, and study abroad opportunities (Kuh 2008). The 2007 Annual NSSE report, *Experiences that Matter: Enhancing Student Success and Learning*, documented a number of outcomes associated with participation in these high-impact practices. Amongst other things, the NSSE found that:

- Learning communities are significantly associated with numerous personal development and learning gains.
- Students conducting research with staff members are more likely to persist, gain more intellectually as well as personally, and choose a research-related field as a career. These students also participate more frequently in deep learning approaches and report greater personal growth and learning.
- Study abroad was moderately related to deep learning and self-reported gains, even after controlling for various institutional and biographical characteristics.
- Students reported that their culminating experience contributed substantially to their abilities in a number of areas, depending on the type of culminating experience (NSSE 2007).

At a time when there is increased focus on curriculum in the South African higher education the integration of high-impact practices offers a way to transform how undergraduate students are educated. Chapter 5 explores these practices in greater detail.

Promotes evidence-based pedagogical innovation

In addition to the identification of high-impact practices, the analyses of specific items the NSSE related to classroom teaching and learning practice have been found to have a positive impact on retention and persistence (Kinzie, Gonyea, Shoup & Kuh 2008). Specific items have been identified as high-impact pedagogical practices based on an analysis of their impact on students' academic achievement and perseverance. The 19 pedagogical practices include items such as:

- Asked questions in class or contributed to class discussions.
- Made a class presentation.
- Prepared two or more drafts of a paper or assignment before turning it in.
- Worked with other students on projects during class.
- Worked with classmates outside of class to prepare class assignments.
- Participated in a community-based project as part of a regular course.
- Received prompt feedback from faculty on your academic performance (written or oral).
- Worked harder than you thought you could to meet an instructor's standards or expectations.
- Had serious conversations with students of a different race or ethnicity than your own.
- Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values.

By monitoring the use of these teaching and learning practices institutions can enhance the quality of teaching and learning and create more engaging learning experiences for students. Chapter 9 considers the 19 items identified in the United States context and performs a broader analysis in an attempt to identify practices that will contribute to retention and success in the local South African context.

Enables systematic approaches to quality enhancement

The NSSE and other surveys of student engagement were developed in part in reaction to the media ranking systems of higher education institutions in the United States. The aim with these surveys was to refocus the discussion of quality in higher education on

students and their learning (NSSE 2009). Similarly Coates (2005) indicates that in the Australasian context, student engagement data have the potential to strengthen quality assurance systems in higher education. He criticises the use of progress rates (success rates) for assessing quality on two levels. First, progress rates are an inadequate indicator of the student's perception of institutional quality, and secondly, progress rates do not provide an objective measure of quality as they are relative to courses and/or modules. Coates maintains that high progress rates through a system might in fact be an indication of the lowering of academic standards. He suggests that student engagement focuses the discussion of institutional quality on student learning (an essential, if not the most important aspect of education) instead of the quality debate being monopolised by resources and institutional reputations (Coates 2005).

McCormick (2009) expands on the value of student engagement surveys for the systematic monitoring of quality by indicating that the use of these measures promotes critical, internal self-reflection or reflective accountability. Because student engagement measures provide institutions with information about aspects that institutions can do something about, systematically gathering data on student engagement allows institutions to develop interventions within the parameters of their own mission.

McCormick *et al* emphasise the importance of student engagement for monitoring quality by highlighting that it

> integrates what has been learned about quality of student effort, student involvement, and principles of good practice in undergraduate education into a broad framework for assessing quality and guiding its improvement. In this regard, it represents precisely what some leading scholars have argued has been lacking in higher education research (McCormick *et al* 2013:81).

Promotes the development of desirable graduate attributes or higher education outcomes

Various studies in the United States have linked student engagement to the development of graduate attributes on desirable higher education outcomes. The most prominent of these studies is the Wabash National Study of Liberal Arts Education (WNSLAE), which was a large-scale, longitudinal study (2006-2009) to investigate factors that affect liberal arts education outcomes. The WNSLAE and other research identified the following list of attributes promoted by student engagement:

- *Persistence*: As stated earlier, student engagement leads to better academic performance and therefore persistence in higher education (Kuh *et al* 2008).
- *Critical thinking*: Student engagement promotes the development of critical thinking since it measures academic challenge, amount of reading and the emphasis institutions place on academic support and the promotion of interaction between students of different cultural backgrounds (Carini, Kuh & Klein 2006).
- *Moral reasoning*: An analysis of the WNSLAE data shows that deep approaches to learning as measured by the NSSE has a modest, positive effect on the development of moral reasoning in first-year students (Mayhew, Seifert, Pascarella, Nelson Laird & Blaich 2012).
- *Need for cognition*: The analyses in the WNSLAE show that interaction with staff as well as meaningful discussion with peers from diverse backgrounds helps to satisfy student desire to engage in cognitive activities (McCormick *et al* 2013).

Having reflected on the benefits of using student engagement surveys and data, I end this chapter by providing an overview of the book.

OVERVIEW OF CHAPTERS

The book is structured in three parts. Part I provides an overview of engagement work in South Africa. The second part focuses on creating institutional conditions impacting student success, and Part III focuses on how we can create conditions within the classroom that are conducive to student engagement and success. The book's outline is as follows:

Part I: Student engagement in South Africa: A status report

Chapter 2 introduces the South African Survey of Student Engagement and provides an overview of what the student engagement landscape looks like in South Africa. The chapter also illustrates how student engagement data can be used to develop a systemic level understanding of the student experience. Intersectional analysis is used to map the learning experience of students by race, gender and generation status. The chapter raises important questions stemming from the data and concludes with suggestions of systemic level interventions that should be considered to enhance student learning and performance.

Chapter 3 focuses on how student engagement data can help us understand and support students as they enter higher education institutions. Intersectional analyses from the Beginning University Survey of Student Engagement (BUSSE) data, as well as complimentary data from a recent financial stress scale added to the SASSE, help to highlight important challenges these students face. From the analyses, the chapter

makes certain recommendations on how institutions could intensify a data-driven focus to help first-year students succeed.

Chapter 4 highlights the urgent need to develop the next generation of academic staff. The chapter considers how student engagement data can provide a data-driven insight into how more and less experienced staff approach teaching and learning and how their perspectives differ from the students. The chapter draws on data from the LSSE and gives recommendations on how academic staff development could be enhanced to build capacity in the system.

Chapter 5 aims to unpack the conceptualisation and impact of high-impact practices (HIPs) implemented in the United States and discusses the potential of developing and measuring HIPs to contribute to the development and success of students in the South African context. The chapter shares data on the prevalence of HIPs as measured through the SASSE in an effort to contribute to the national debate on these practices.

Part II: Creating institutional conditions that matter for student success

Chapter 6 outlines strategies for leading evidence-based improvement of student engagement. The first part of the chapter uses the role or designation as an international vehicle for engaging people in evidence-based change. It explores perspectives of quality assurance professionals, institutional researchers, department chairs, librarians, first-year experience coordinators, academic advisors, and careers advisors. The second part of the chapter takes a broader quality-improvement perspective and explores several ways in which institutions can use survey results to prompt change.

Chapter 7 considers the role engagement data can play in assisting student affairs to advance student learning. The chapter begins with understanding the philosophical origins of student affairs in both the United States and South Africa and then discusses the evolution of student learning as a central tenet in the work of student affairs practitioners. The chapter gives examples of how student affairs educators could make use of student engagement data for improvement of student affairs. The authors also propose how a focus on student engagement can create new collaboration opportunities between curriculum learning, student affairs and academic development in the South African context.

Chapter 8 addresses the key role of postsecondary leaders and managers at all levels in using information about student engagement to help promote and realise higher levels of student performance and institutional effectiveness. The authors

briefly describe how the conceptions of the role of educational leadership and management have changed over past decades. This backdrop is important because as it alters the nature of the responsibilities leaders have to their institution and students. This description is followed by a discussion of what leaders and managers can do to enact student engagement as an institution-wide strategy to induce students to take part in activities inside and outside the classroom that will help them attain the essential 21st century learning outcomes.

Part III: Creating conditions for success inside the classroom

Chapter 9 outlines the student engagement practices that matter for student learning, and focuses on those that instructors can influence. The chapter then explores the foundational background and concept of student engagement within teaching and learning spaces. This is followed by a summary of research findings highlighting 19 student engagement and instructional practices that positively contribute to success. The chapter also explores how effective pedagogical practices could be contextualised in South Africa, and how or whether such practices impact academic achievement. Finally, the chapter considers the implications for pedagogical practices.

Chapter 10 illustrates how student engagement data at the course/module level using the Classroom Survey of Student Engagement (CLASSE) can be used to create effective teaching and learning environments and promote evidence-based improvement in pedagogy. The chapter illustrates how the data can give students a voice (agency) in how they are taught, how the data can be used to empower academics to be better at teaching and how evidence can help to facilitate more collaborative relationships between students and their teachers. This chapter gives an in-depth exploration into why students and staff tend to generally 'miss' each other and highlights the use of the CLASSE measure for an evidence-based approach to academic staff development.

Chapter 11 reflects on what we have learnt from student engagement data to date. The chapter provides recommendations on how institutions could further foster a culture of evidence; create, implement and evaluate interventions to support and develop students; contribute to a growing knowledge base on engagement and student success in general; as well as contribute to the development of engaging teaching and learning spaces.

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2 DEVELOPING A SYSTEMIC UNDERSTANDING OF THE STUDENT EXPERIENCE

Francois Strydom & Cheryl Foxcroft

There can be no peace without understanding – Senegalese proverb

INTRODUCTION

The Department of Higher Education and Training (DHET) emphasises the vital role that higher education plays in the development of a country and in changing peoples' lives by helping them to break free from poverty. This should also be interpreted within the context of the *National Development Plan: Vision for 2030*, which was developed by the National Planning Commission (NPC) in collaboration and consultation with South Africans from all walks of life (NPC 2011). NDP 2030 views higher education as a critical stakeholder in creating a virtuous cycle of growth and development to eliminate poverty and to sharply reduce inequality.

These aspirations of the NPC stand in stark contrast with the realities of the inefficiencies plaguing the undergraduate education system. A DHET cohort analysis from 2000 to 2008 of first-time entering undergraduate students in public higher education institutions (HEIs) revealed that 20% of students entering in the 2005 cohort in contact mode had graduated after three years of study, 57% after six years of study, and 64% after ten years of study. In comparison, only 9% of students entering in the 2005 cohort in distance mode had graduated after six years of study, and 15% after ten years of study (DHET 2016).

From an equity perspective, this cohort analysis found that black African and coloured students fared very poorly when compared to their Indian and white counterparts and that females outperformed males (DHET 2016). Moreover, the DHET (2017) reports the average graduation rate for undergraduate degrees at 17%, and the Council on Higher Education (CHE 2013) estimate that only half of students gaining access to higher education will ever graduate.

These sobering statistics, as well as the gap between aspirations for a better life higher education could provide for families, and the harsh reality of students struggling to succeed, urge us to find better ways to help students succeed. Our contribution to this urgency is to advocate for the potential of using evidence-informed analyses and interventions to develop the higher education system. Whereas Chapter 1 provides a conceptual introduction to student engagement and introduces the different measures that are used in the South African context, this chapter also demonstrates how student engagement data can be used to develop a comprehensive understanding of the student experience. The chapter gives an intersectional analysis to map the learning experience of different student groups by race, gender and generation status. It concludes by suggesting systemic level interventions that should be considered to enhance learning and performance.

WHAT IS THE VALUE OF A SYSTEMIC PERSPECTIVE ON STUDENT ENGAGEMENT?

The previously mentioned cohort analysis is an example of why increased accountability demands are being placed on higher education institutions. Internationally, public accountability demands increasingly expect HEIs to find ways of providing evidence in concrete, observable, and measurable ways about what they are doing to ensure and enhance the quality of undergraduate education and student success (McCormick 2009). Higher education planning, policy and practice are also increasingly focused and reliant on how students think, behave and learn (Coates & McCormick 2014).

The #FeesMustFall campaign and similar campaigns in the United States, United Kingdom and Europe have emphasised the importance of recognising and including student voices in decision-making and challenging how higher education is financed. Students, and providing them with a 'data-driven' voice, lie at the centre of student engagement research.

Student engagement integrates theoretical and empirical higher education perspectives stretching back to the 1930s to inform contemporary good practices in undergraduate education and focuses on improving the quality of undergraduate education (Coates & McCormick 2014; Kinzie, McCormick & Gonyea 2016). From a systemic perspective, surveys of student engagement provide:

- a more nuanced data-informed understanding of how different groups of students' experience and engage in higher education;
- data on educational behaviours and practices that are associated with desirable and more equitable outcomes for higher education systems, such as better

throughput and success rates, but also with quality graduates who are able to gain employment and contribute to economic development;

- a perspective that is focused on student and staff behaviour instead of their satisfaction or attitudes and beliefs;
- an opportunity for comparisons across different institutions as a result of the use of largely representative samples and standardised administration protocols;
- information that bridges the gap between research and practice and allows system-wide and institutional leaders to develop action plans to enhance effective education behaviours by students and effective educational practices by institutions; and
- a common language that can be used to further intra-and inter-institutional conversation and collaboration on how to address challenges relating to quality undergraduate education and to share possible solutions relating to these challenges (McCormick & McClenney 2012).

Student engagement data have the potential to give us a snapshot of what is happening in universities with regard to students' educational behaviours, enabling us to create a common language about what should be happening in our universities. This includes: to ensure quality education; to benchmark between institutions; and to generate targeted, systemic interventions based on the diagnostic results of the student engagement data.

TOWARDS A DEEPER UNDERSTANDING OF STUDENTS

To contribute towards the DHET's idea of true transformation of South African higher education new ways of interpreting and using data need to be promoted. In this section, the results of the South African Survey of Student Engagement (SASSE) will be used to provide insights into the experience of different groups of students. The sample will first be described before presenting the results. The results have been disaggregated by generation status, gender, race and year of study to allow for a greater focus on intersectional analysis, which is a fairly new field in higher education research but has the potential to provide:

- a more accurate reflection and understanding of the growing diversity of students in higher education;
- a means of acknowledging voices and realities on the margins that may be silenced when we only focus on one-dimensional categories without consideration for the impact intersecting factors have on these students;
- a means for uncovering how converging identities contribute to inequality (Griffin & Museus 2011) and this has implications for how we target institutional interventions; thus, intersectional analyses can enable higher education researchers to make prudent decisions about where to invest their energy; and

- richer understandings of how multiple social identities interact helps to avoid the challenge of advancing equality in one area while perpetuating inequalities in other areas (Wilson-Strydom, Strydom & Hen-Boisen 2016).

When undertaking an intersectional analysis of survey data it is important to continue to ask questions about the meaning of the findings. This opens the possibility of further analyses being conducted to explore possible answers to the questions or even to conduct further studies. The sections that follow present the SASSE findings and pose possible questions that emerge from the findings. The sections also give reasons for posing these questions. It is hoped that this will provide some ideas of how to enrich our understanding of the SASSE findings and their meaning, which could assist in planning effective strategies to enhance student engagement.

The results reported in this chapter are based on the SASSE 2014 survey, which included 12 306 respondents enrolled for a degree at nine institutions across South Africa. Four of these were traditional universities, two were comprehensive universities and three were universities of technology. The sample comprised 2 946 first-year students and 9 360 senior students. A total of 47% of the respondents were males and 53% females. The average response rate per institution was 5.7%.

The racial demographics of the respondents were 69% black African, 6% coloured, 4% Indian/Asian, 16% white and 1% chose "other".

In the SASSE 2014 survey the faculties were grouped into four categories:

- Business, Economics and Management
- Human and Social Sciences
- Sciences, Engineering and Technology
- Education

Approximately 34% of the students who completed the survey were enrolled in Business, Economics and Management, 16% were enrolled in Human and Social Sciences, while the majority (45%) of the sample were enrolled in Sciences, Engineering and Technology. Only 5% were enrolled in Education.

THEMES AND INDICATORS

The purpose of the themes and indicators, like the benchmarks reported for previous versions of the SASSE, is to provide a more manageable and digestible overview of the survey, which consists of 104 student engagement items (McCormick & McClenney 2012). The advantage of the themes and indicators in the updated version of SASSE is that they provide a more coherent framework and specific,

psychometrically robust measures for improving teaching and learning. These themes and indicators (Table 2.1) can be displayed in a dashboard that can be used to catalyse conversation between different stakeholders and institutions.

TABLE 2.1 Themes and engagement indicators in SASSE

Themes	Engagement indicators
Academic Challenge	• Higher-Order Learning • Reflective and Integrative Learning • Learning Strategies • Quantitative Reasoning
Learning with Peers	• Collaborative Learning • Discussion with Diverse Others
Experience with Staff	• Student-Staff Interaction • Effective Teaching Practices
Campus Environment	• Quality of Interactions • Supportive Environment

To produce an indicator score, the response set for each item is converted to a 60-point scale. For example, Never = 0; Sometimes = 20; Often = 40; Very often = 60. Thereafter, rescaled items are averaged. Thus, a score of zero means that a student responded at the bottom of the scale for every item in the engagement indicator, while a score of 60 indicates responses at the top of the scale on every item. First-year and senior students' mean scores for the different indicators were compared by first-generational status, gender and race using Independent Samples t-tests. It is important to mention that although differences might seem subtle, it is important to keep in mind that we are working with aggregated averages and that student engagement comparisons are used to catalyse conversation and to highlight areas for further exploration. The mean scores of all indicators differ significantly between first-year and senior students ($p = 0.000$). A complete list of statistical and practical significance of all analyses in this chapter is included as Appendix A at the end of the chapter. Each of the themes and indicators will be examined next, followed by a discussion on the implications of the data for student development and success.

Academic Challenge

Challenging intellectual and creative work is central to student learning and academic quality. In particular, having high expectations is critical to motivate students and to

create an institutional culture that values academic achievement. To create more equitable outcomes it is vital that institutions create appropriate support to help students to reach these expectations (Kuh, Kinzie, Schuh & Whitt 2010). Universities promote student learning by challenging and supporting students to engage in various forms of deep learning that requires more than the mere memorisation of information. Four engagement indicators are part of this theme, namely: Higher-Order Learning, Reflective and Integrative Learning, Learning Strategies, and Quantitative Reasoning.

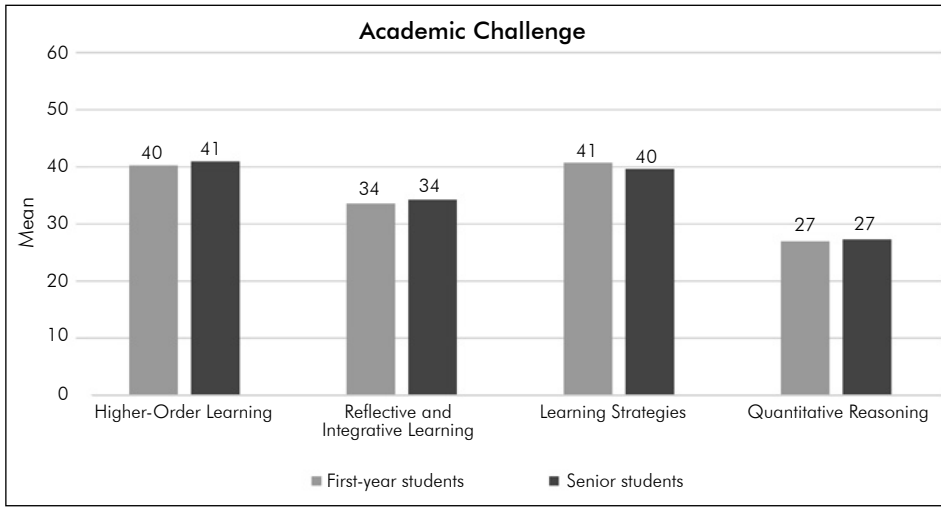

FIGURE 2.1 Engagement indicator mean scores for first-year and senior students regarding Academic Challenge

Figure 2.1 shows that in terms of academic challenge, the experiences of first-year and senior students are very similar. It also shows that students engage more in Higher-Order Learning and Learning Strategies than Reflective and Integrative Learning, with the lowest mean scores indicated for Quantitative Reasoning.

Higher-Order Learning

The Higher-Order Learning indicator describes how much students' academic work places emphasis on challenging cognitive tasks such as the application, analysis, judgment, and synthesis of information learned instead of just mere memorisation of facts (Kuh *et al* 2010). First-year and senior students' mean scores for the Higher-Order Learning engagement indicator were compared by first-generational status, gender and race (Figure 2.2).

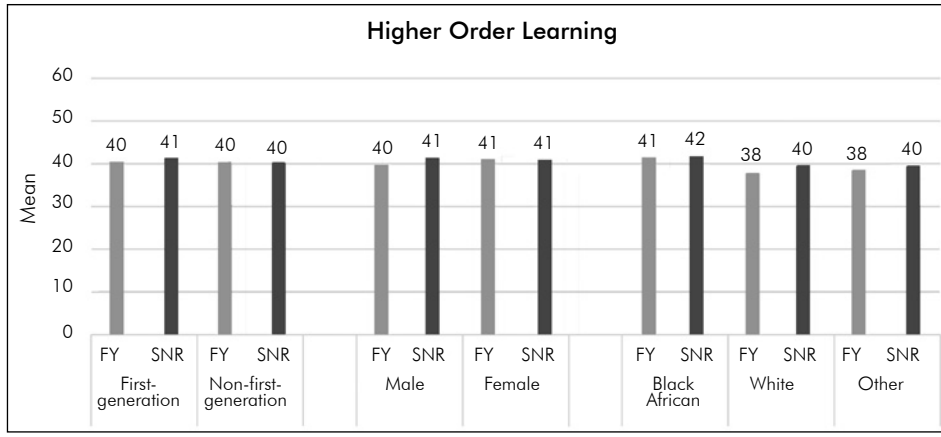

FIGURE 2.2 Higher-Order Learning mean scores for students by first-generational status, gender and race

The disaggregation by race, gender and generational status shows only slight differences in the levels of higher-order learning. These differences are slightly more prominent for comparisons by race. The results indicate that black African students were slightly more engaged in higher-order learning than the other races. In addition, first-year white students and first-year "other" (representing a combination of racial classification options besides black African and white) students reported less emphasis on higher-order learning in challenging cognitive tasks than first-year black African students. Similarly, senior white students and senior "other" students reported less higher-order learning taking place than senior black African students.

From an intersectional perspective, these findings highlight the need for a deeper interrogation of why the experience of first-year and senior students related to higher-order learning are so similar. A further question is whether analysing the data through the lens of other variables and using item level data instead of aggregated data might yield more meaningful information. For example, a post hoc item level analysis was undertaken using the level of challenge posed in subjects/modules, the extent of class preparation, and the extent of writing assignments required and how this impacted on the level of high-order learning emphasis experienced. This analysis showed that students who felt challenged by their subjects/modules experienced more emphasis on higher-order learning than students who experienced low levels of subject/module challenge. Furthermore, when students spent more time reading and preparing for class in modules/subjects where they felt challenged, they experienced more emphasis on higher-order learning. For senior students, higher levels of higher-order learning were associated with higher amounts of assigned writing they were

allocated. Overall, the more writing senior students were assigned, the more they perceived that their subjects/modules emphasised higher-order learning.

Reflective and Integrative Learning

Students are more likely to deepen and derive meaning from their studies if academic modules are structured so that the students can connect the content to their personal experiences and societal concerns. Lecturers who emphasise reflective and integrative learning motivate students to make connections between module content and various real-world examples. Helping students make these connections requires that they re-examine their beliefs and consider different perspectives and viewpoints other than their own. Consequently, this encourages reflective and integrative learning. Students who engage in reflective and integrative learning will also participate in deep approaches to learning (Laird, Shoup & Kuh 2005), which enrich their understanding of their academic subject/module content (Huber & Hutchings 2004).

To determine students' participation in reflective and integrative learning, first-year and senior students' mean scores were compared by generational status, gender and race (Figure 2.3).

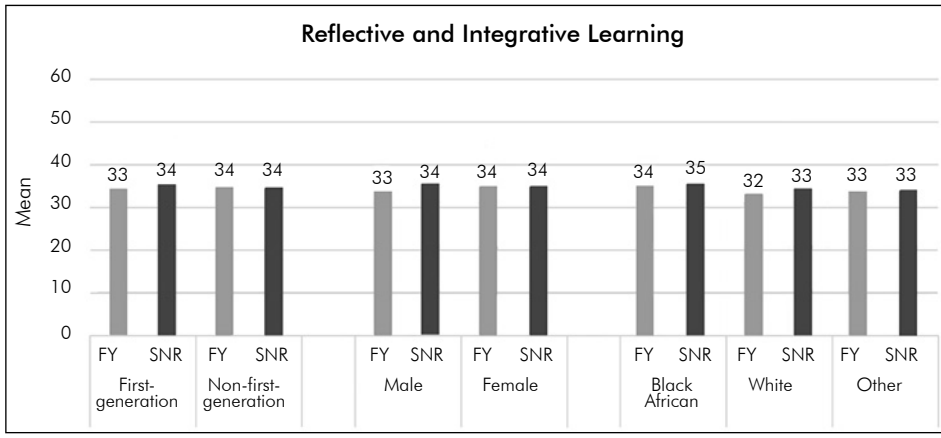

FIGURE 2.3 Reflective and Integrative Learning mean scores for first-year and senior students by first-generational status, gender and race

Although Figure 2.3 displays significant differences between the reflective and integrative learning levels of first-year and senior students, in practice these differences are small. Senior students connect or combine module content to personal and prior experiences slightly more than first-year students. This shows that there is a difference between the experiences of first-year and senior students in the direction

we would expect – although one might ask whether the difference should be more substantial. Furthermore, the relatively low mean scores lead us to question whether the majority of students, and especially senior students, connect their learning to personal experiences and societal contexts. A post hoc analysis of the items in this scale shed some light on this question as it revealed that only 38% of first-year students and 46% of senior students reported that they regularly connected their learning to societal problems or issues. So, while a greater percentage of students could connect their learning to societal issues, it is worrying that not even half of the senior students experienced such connections. One possible reason for this was uncovered in the analysis in that only 37% of students indicated that diverse perspectives, where differing political, religious, racial/ethnic, gender and economic views could be offered, were raised or elicited in subject/module discussions or writing assignments. The post hoc analysis of the items also revealed that senior students experienced higher levels of reflective and integrative learning when they were required to write more and when they felt challenged to do their best work in the classroom.

Learning Strategies

University students improve their learning and retention when they actively engage with their subject material by analysing information as opposed to only memorising information. Effective learning strategies include summarising subject material, reviewing notes after class, and identifying key information in readings. Knowing how frequently students apply effective learning strategies can help universities target interventions to promote student learning and success and make a positive difference in many students' degree attainments (e.g. Dumford, Cogswell & Miller 2016).

Figure 2.4 shows that first-year students reported more frequent use of effective learning strategies than their senior counterparts. Similarly, senior non-first-generation students tend to use such learning strategies less frequently than senior first-generation students. Also, first-year females tend to make slightly more use of learning strategies than first-year males, but at senior level the same levels of learning strategies are reported for both the genders. Racially, first-year black African students reported more use of effective learning strategies than first-year white and first-year "other" students. Finally, senior "other" students reported the lowest use of learning strategies, while senior white students obtained the second lowest mean.

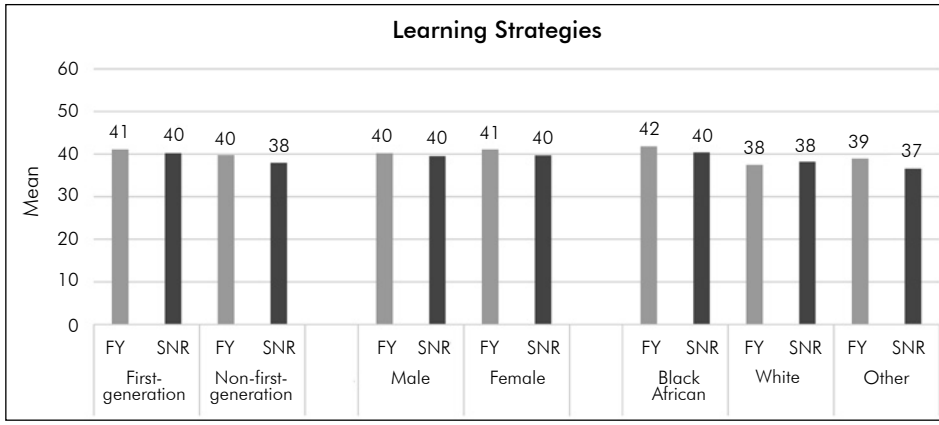

FIGURE 2.4 Learning Strategies mean scores for first-year and senior students by first-generational status, gender and race

These findings raise interesting questions. For example, it is puzzling to understand why, if black African students report more frequent use of effective learning strategies than their white counterparts, differences in achievement levels between black African and white students persist? The DHET (2017) reports an 8% difference in student success between white and black African students, favouring the former (calculated as module passes divided by module enrolments and applying weighting according to race in this instance). Further research beyond just the use of learning strategies is clearly needed to better understand why the greater use of effective learning strategies by black African students compared to their white counterparts do not translate into more equitable outcomes in terms of performance.

A post hoc item level analysis showed that most students (80%) reported that they regularly identified important information from reading assignments. Furthermore, most students described that they reviewed their notes after class, with 67% of first-year and 62% of senior students replied that they did so "Often" or "Very often". These results point to a potential avenue of investigation, namely whether the academic success skills training in note-taking and academic reading is effective in changing the ways student learn. The analysis also identified that there is potentially a link between the use of learning strategies and academic performance. For example, students' use of learning strategies was higher when their self-reported grades were also high. First-year students who reported their marks to be above 50% used effective learning strategies more often than those with lower self-reported marks. Senior students who reported marks of 80% or higher used learning strategies more frequently than those students with self-reported marks of 50-79%.

Quantitative Reasoning

The ability to use and understand numerical and statistical information in day-to-day life is referred to as "quantitative literacy". It has become increasingly important for university students to develop this ability through evaluating, supporting and critiquing the use of numerical and statistical information in real-life situations (McCormick, Gonyea & Kinzie 2013). With vast amounts of information available, much of which is in numerical form, through technological advancements, one cannot afford not to invest in the ability to make rational judgements about the credibility, use, and impact of this information. First-year and senior students' mean scores for the Quantitative Reasoning engagement indicator were compared by first-generational status, gender and race, as presented in Figure 2.5.

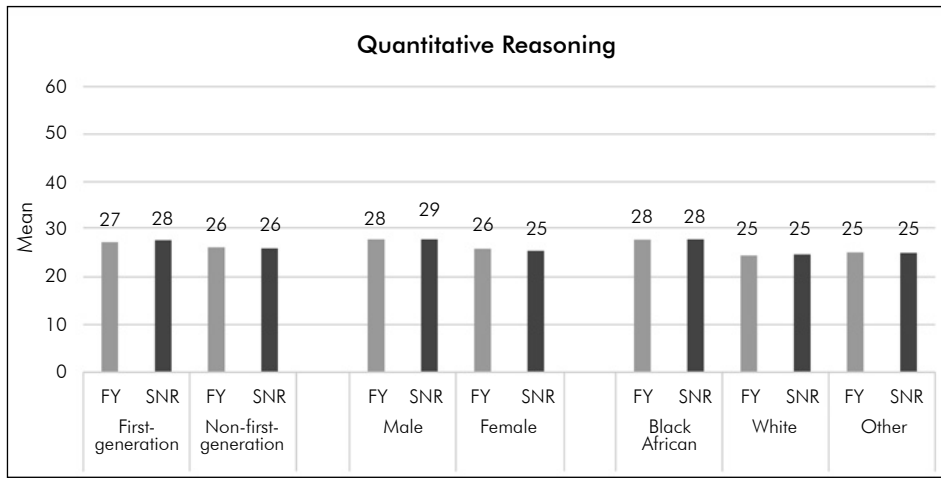

FIGURE 2.5 Quantitative Reasoning mean scores for first-year and senior students by first-generational status, gender and race

Figure 2.5 shows that comparisons by race point towards a slight difference between black African students' reported quantitative reasoning skills when compared to the other races. White students and "other" students reported making less use of quantitative reasoning than black African students. Similarly, female students reported making less use of quantitative reasoning than male students. Senior male students reported the highest mean score for use of quantitative reasoning skills in this indicator when compared to the other groups. Interestingly, first-generation students reported a slightly higher mean for quantitative reasoning than non-first-generation students.

Learning with Peers

Collaborating with others to master difficult material and develop interpersonal and social competence prepare students to deal with complex, unscripted problems they will encounter during and after university (Kuh 2007). Two engagement indicators comprise this theme: Collaborative Learning and Discussion with Diverse Others. Students' reported learning with peers' mean scores were somewhat different when compared by first-year and senior level (Figure 2.6). These differences will be teased out in the next two sections where each indicator is analysed in greater depth.

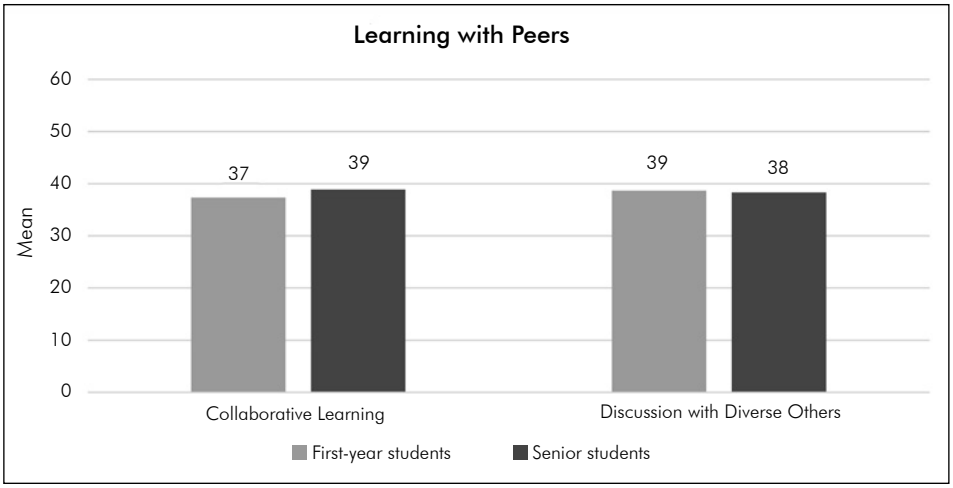

FIGURE 2.6 Learning with Peers engagement indicator mean scores for first-year and senior students

Collaborative Learning

Collaborative learning activities may include people working on group projects, asking peers for help with challenging subjects or explaining it to others, and going through subject material in preparation for exams within a group context. When asked how frequently students collaborated with other students, it was evident that not all students have equal engagement in collaborative learning. First-year and senior students' mean scores for the indicator were compared by first-generational status, gender and race.

Figure 2.7 shows that for all the comparisons performed, the mean for senior students was slightly higher than that for first-years. Furthermore, first-generation students reported a slightly higher mean than non-first-generation students. Of interest is that first-year male students reported less collaborative learning activities than first-year female students, but the mean scores for the senior males and senior

females were similar in terms of the collaborative learning opportunities engaged in. Additionally, white students and "other" students reported the lowest engagement in collaborative learning activities when compared to the higher mean score for the black African students.

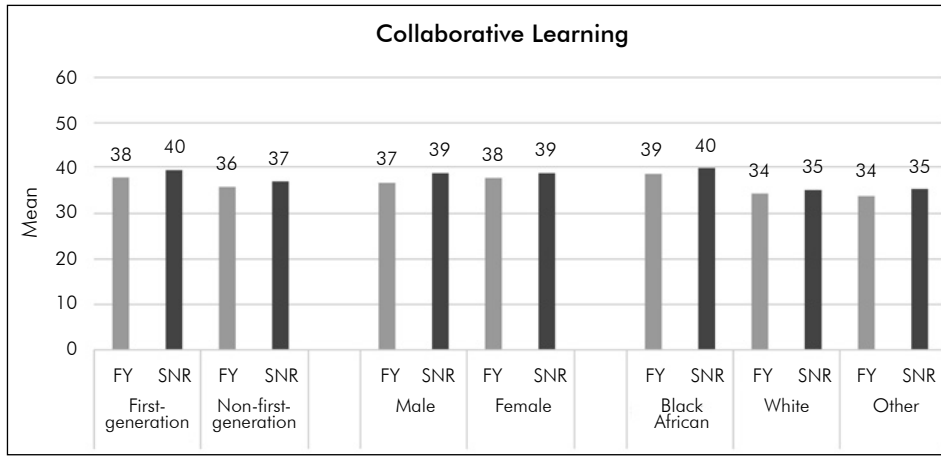

FIGURE 2.7 Collaborative Learning mean scores for first-year and senior students by first-generational status, gender and race

An important finding is that first-years are slightly less involved in collaborative learning than senior students. This finding suggests that first-year students might take a while to perceive the value of collaborative learning (i.e., the value only becomes clearer when they are in their senior years when they practice collaborative learning). First-years thus need to be intentionally reminded and involved in initiatives that allow them to learn collaboratively so that more of them develop an understanding of the value of such engagement to enhance their learning.

Discussion with Diverse Others

Universities have become places that offer students from various backgrounds and life experiences an opportunity to meet and engage with each other. These interactions are of mutual benefit to students and prepare them for personal and civic participation in diverse working and social environments (Crutcher, Corrigan, O'Brien & Schneider 2007). Student responses indicate that most students reported moderate levels of interactions. First-year students reported somewhat more frequent discussions with diverse others than their senior counterparts.

Figure 2.8 shows that first-generation students are likely to interact less with diverse others than non-first-generation students. Also, first-year and senior males describe

a little more interaction with people from various backgrounds than females, while first-year and senior females have the same level of reported interaction with diverse people. This is the only engagement indicator where black African students obtained a lower mean score than the other racial groups. Black African students reported less contact with people from various backgrounds than white and "other" students.

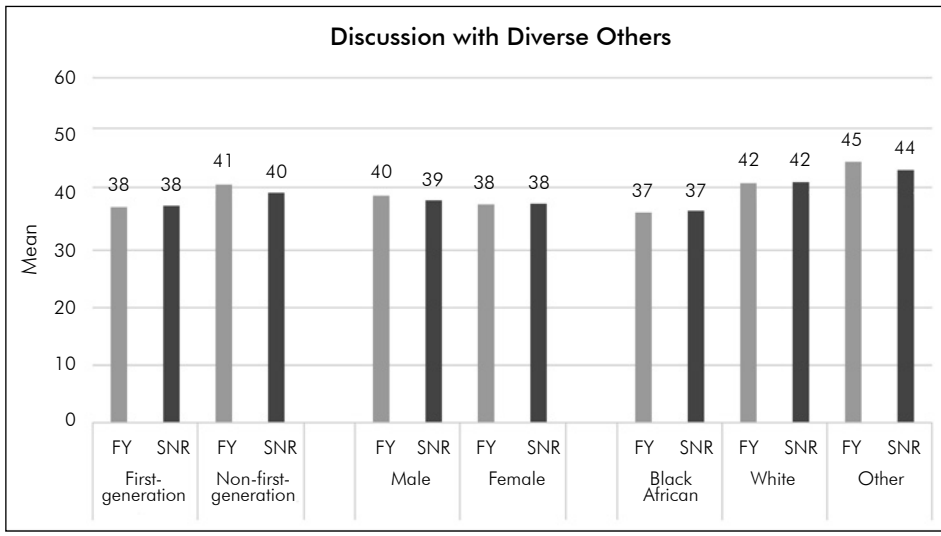

FIGURE 2.8 Discussion with Diverse Others mean scores for first-year and senior students by first-generational status, gender and race

A more fine-grained analysis of the items for this indicator revealed that 63% of students reported interacting regularly with people of a race or ethnicity other than their own. Furthermore, most first-year students (70%) and senior students (68%) stated that they "Often" or "Very often" had discussions with people from a different economic background than their own. Most students (65%) reported that they interacted regularly with people from different political and religious beliefs than their own. In terms of creating more equitable outcomes and the importance of facilitating diverse interaction, the analysis showed that both first-years and seniors who more frequently interacted with diverse peers also perceived their campus environment to be slightly more supportive and had more positive interactions with students, lecturers and staff. These more nuanced findings provide pointers to building a greater sense of social cohesion among students in that a more inclusive, holistic approach is required.

Experience with Staff

Students learn first-hand how experts think about and solve problems by interacting with staff members inside and outside of instructional settings (Kuh *et al* 2010). As a result, staff become role models, mentors, and guides for lifelong learning. In addition, effective teaching requires that staff deliver course material and provide feedback in student-centred ways. Two engagement indicators investigate this theme: Student-Staff Interaction and Effective Teaching Practices. Students' reported experience with staff mean scores varied somewhat when compared by first-year and senior level (Figure 2.9). These findings will be more fully unpacked in the two sub-sections dealing with each of the engagement indicators linked to this theme.

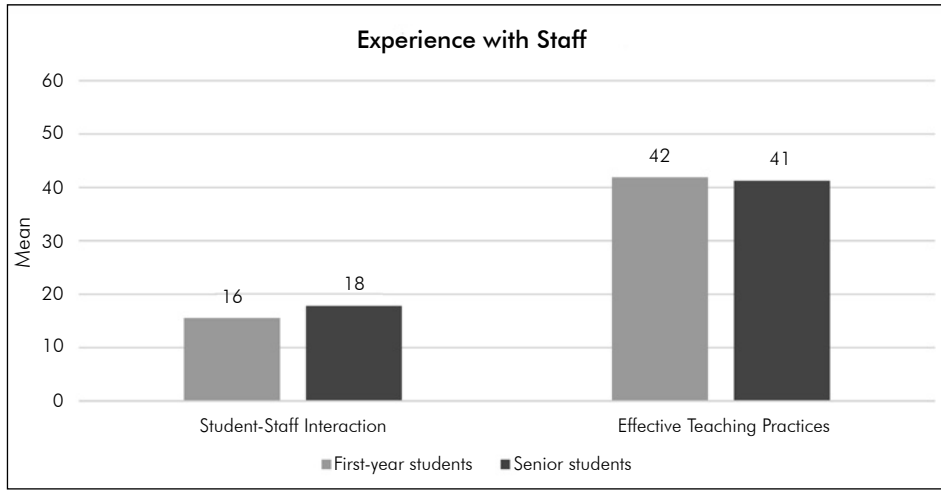

FIGURE 2.9 Reported mean scores for first-year and senior students concerning Experience with Staff

Student-Staff Interaction

Evidence suggests that students who have regular contact with lecturers and support staff are positively influenced by increasing students' cognitive growth, engagement, development and academic success (Pascarella & Terenzini 2005). University staff have informal and formal roles as mentors, advisors and teachers, which models intellectual work, the effective use of knowledge and skills, and assist students to make conclusions regarding their studies and their future plans. As shown in Figure 2.10, the Student-Staff Interaction engagement indicator mean scores reported by first-year and senior students were low.

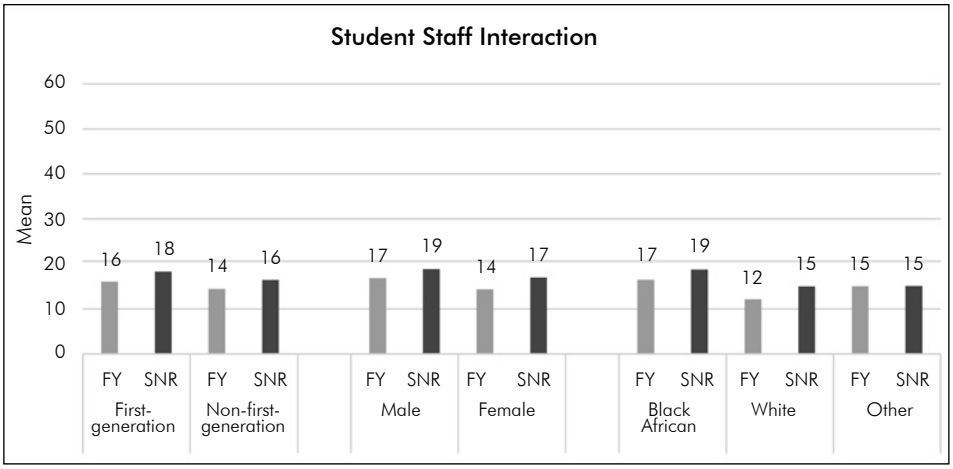

FIGURE 2.10 Student-Staff Interaction mean scores for first-year and senior students by first-generational status, gender and race

The results were somewhat different when first-year and senior students were compared, as senior students tended to interact more with staff than first-year students. Furthermore, first-year and senior first-generation students reported higher student-staff interaction than first-year and senior non-first-generation students. Likewise, first-year and senior male students appear to be more comfortable interacting with staff than first-year and senior female students. Of everyone surveyed, black African students described more frequent contact with staff when compared to the other races. First-year white students obtained the lowest mean score for interacting with staff, while the first-year and senior "other" students did not differ in terms of their level of interaction with staff.

An instructive question raised by these findings is what do students interact with staff about? An analysis of the items showed that only 21% of students "Often" or "Very often" discussed their career plans with a lecturer. Very few first-year students (18%) and senior students (21%) indicated that they work with a staff member on activities other than academic work, such as on committees, projects and student groups. Slightly more students reported discussing their past academic performance with a lecturer, with 26% of first-years and 24% of senior students doing so. Not surprisingly, the analysis showed that first-year and senior on-campus students were more likely to interact with lecturers than students living off campus.

In general, students reported very low interaction levels with staff, with a mean of 15.56 (out of a possible maximum score of 60) for first-year students and a mean of 17.82 for senior students. Considering the research on the important role that

academic and other staff play in the lives of student as role models, especially for first-generation students, these results beg the question of how interaction between staff and students can be improved. In addition, could facilitating greater interaction between staff and students help to attract more students into postgraduate studies and an academic career, thereby helping to address the capacity constraints in the system? Answers to these pertinent questions need to be grappled with.

Effective Teaching Practices

Effective teaching practices play an important role in facilitating student learning (Ambrose *et al* 2010). These practices promote student learning and skills and include the following activities: clear explanations, organised teaching, illustrative examples, and quick feedback regarding tests and assignments. First-year students reported that their lecturers made more frequent use of effective teaching practices than the senior students did (Figure 2.11).

The figure shows that first-year and senior first-generation students' mean scores for effective teaching practices were similar, but were higher than those for first-year and senior non-first-generation students. The mean score for first-year female students was higher than that of senior female students, while, first-year and senior male students had the same mean scores for this indicator. However, results indicate that black African students' mean score was much higher than those of white and "other" students.

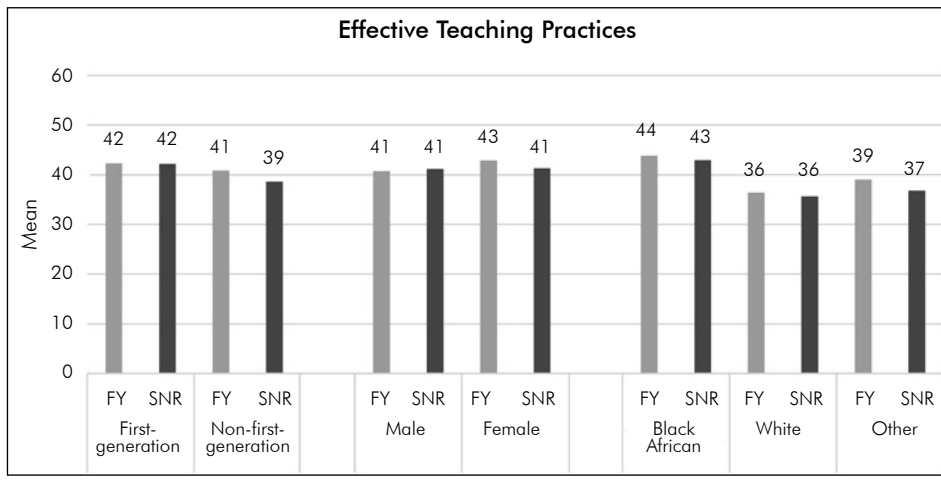

FIGURE 2.11 Effective Teaching Practices mean scores for first-year and senior students by first-generational status, gender and race

Subsequent analyses revealed that most students (78%) indicated that their lecturers clearly explained subject/module outcomes and requirements "Quite a bit" or 'Very much.' Most students (81%) reported that their lecturers regularly presented subject/module sessions in an organised way. Fewer students (64%) indicated that lecturers provided feedback on a draft or work in progress. In addition, 66% of students stated that detailed feedback was provided in a timely manner. These findings provide insight into what aspects can be worked on to enhance the use of effective teaching strategies.

Campus Environment

Students benefit from and are more satisfied by supportive campus environments that cultivate positive relationships among students, lecturers, and staff (Kuh *et al* 2010). Two engagement indicators investigate this theme: Quality of Interactions and Supportive Environment (Figure 2.12). This will be explored further when the findings for the two indicators are presented in the sub-sections below.

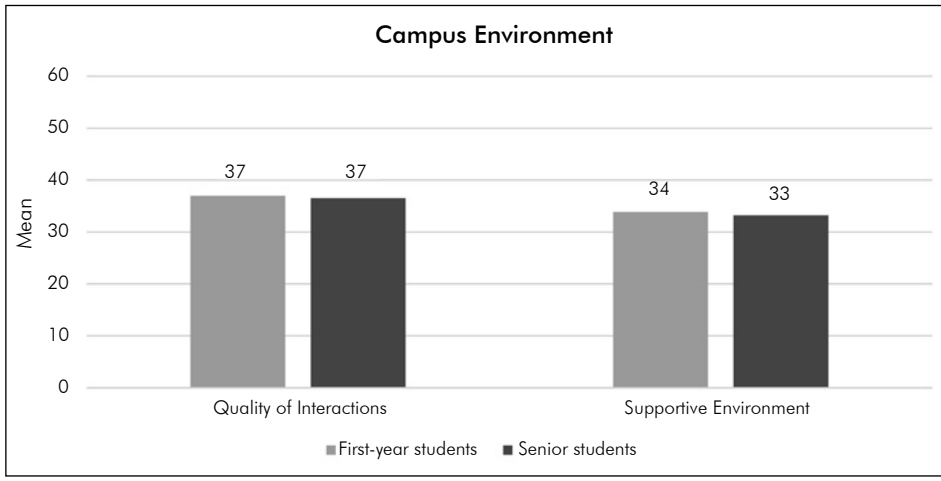

FIGURE 2.12 First-year and senior students' engagement indicator mean scores regarding their Campus Environment

Quality of Interactions

Positive interpersonal relationships support student learning and success, but the campus environment influences both the students' relationships as well as their learning and success at university. Students who seek support from peers, advisors, lecturers and support staff are more equipped to find assistance when needed, and learn from those around them (Kuh *et al* 2010). The Quality of Interactions

engagement indicator was compared by first-generational status, gender and race (Figure 2.13).

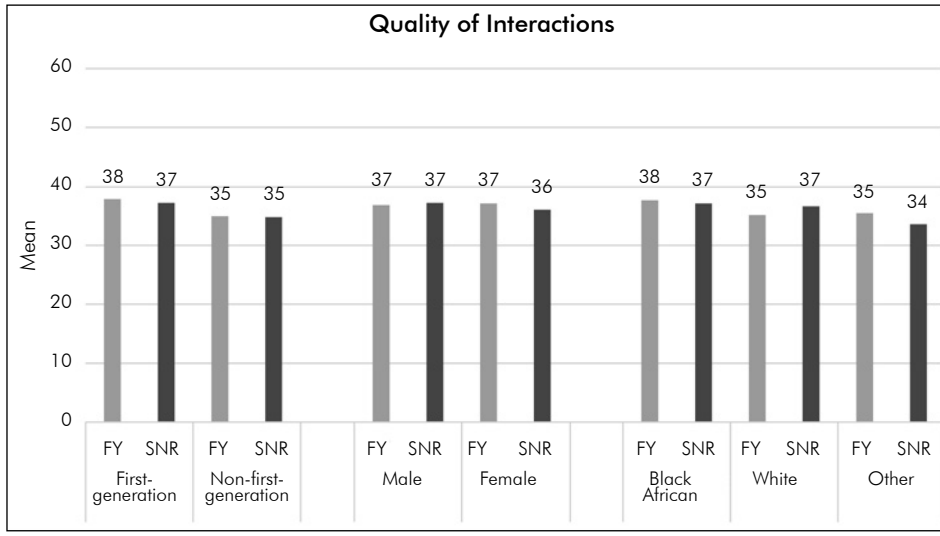

FIGURE 2.13 Quality of Interactions mean scores for first-year and senior students by first-generational status, gender and race

First-year students experienced a slightly higher quality of interactions at university than senior students reported. It is encouraging to see that first-year and senior first-generation students' mean scores for Quality of Interactions at university were higher than the first-year and senior non-first-generation students, who obtained the same mean score. Furthermore, first-year and senior males, as well as first-year females had the same mean score for Quality of Interactions, while senior females obtained a slightly lower mean score for this indicator. When compared by race, first-year white students and first-year and senior "other" students had a lower mean score for Quality of Interactions at university when compared to the black African students. In contrast, first-year first-generation students and first-year black African students obtained the highest mean for the Quality of Interactions with students, peers and staff.

With whom do students have quality interactions? The item level analysis showed that most students (88%) rated the quality of interactions with other students as "Good" or "Excellent". Additionally, students' interactions with academic staff and lecturers, as well as peer learning support providers such as tutors, mentors and facilitators were appreciated, with 71% of students reporting the quality of these interactions as "Good" or "Excellent".

However, students reported a lower Quality of Interactions with staff in student support services and administrative services when compared to the other stakeholders. In addition, only 53% of first-year students and 51% of senior students rated the administrative services, such as registration and financial aid offices, as "Good" or "Excellent". At a systemic and institutional level this finding provides an opportunity to reflect and possibly develop interventions to capacitate administrative and support service staff regarding how to work with students but also to find ways to help students understand the complexity and pressure that staff in these roles face within higher education.

Supportive Environment

Institutions that are dedicated to enhancing student success should aim to provide support to students across a variety of areas that include the cognitive, social and physical, and should encourage a high level of student performance and satisfaction (Pascarella & Terenzini 2005). This engagement indicator summarises students' perceptions about the institution's efforts regarding their learning and development. Figure 2.14 compares the Supportive Environment engagement indicator by first-generational status, gender and race.

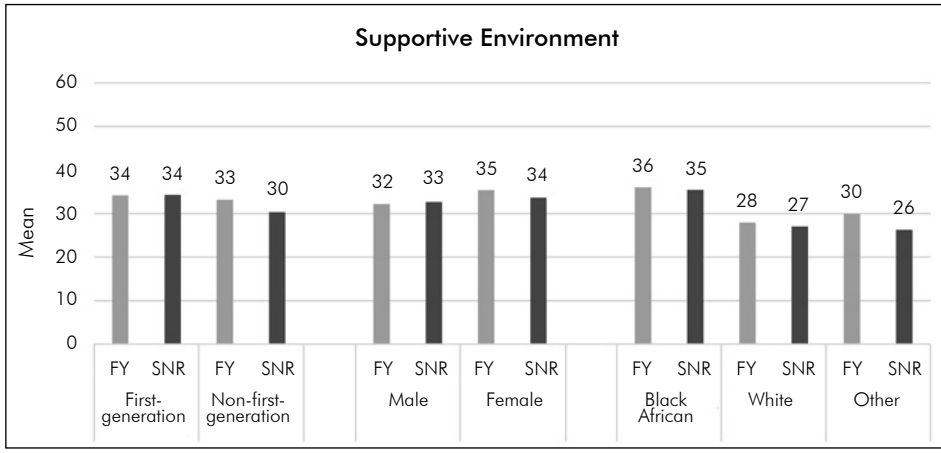

FIGURE 2.14 Supportive Environment mean scores for first-year and senior students by first-generational status, gender and race

First-year students reported a slightly more supportive environment than senior students. This suggests that a focus on the first-year experience has a positive impact. It also suggests that more focus is needed on senior students to help them deal with their academic and non-academic responsibilities and their ongoing development as learners.

In general, first-generation students perceived a higher level of support from their institution than that of non-first-generation students. Similarly, first-year females experienced more institutional support than first-year and senior males and senior females. Moreover, when compared by race, first-year and senior black African students experienced higher levels of support at their universities than white and "other" students did. Students living off campus found the environment less supportive than on-campus students did.

What aspects of the institutional environment did students view as being supportive? Item level analysis indicated that students felt that their institution stressed the use of learning support services such as tutoring services, peer mentoring, writing centres and the library "Quite a bit" or "Very much", with 81% of first-years and 77% of senior students endorsing these categories. Most first-year students (64%) and senior students (59%) felt that their institution encouraged contact among students from different backgrounds (such as on social, racial/ethnic, religious, and economic levels).

Further, it was evident that very few students (37%) believed that their institution emphasised helping them to manage their non-academic responsibilities, which included family and work matters. Less than half of first-year students (43%) and senior students (47%) stated that their institution encouraged them to attend events that addressed important economic, political, or societal issues "Quite a bit" or "Very much".

The findings reported in this sub-section provide much food for thought regarding how to address challenges to the campus environment and culture ranging from the need to provide a more supportive environment for senior students, to the need to train administrative and support service staff to effectively interact with students, to how to assist students to manage family and work-related matters. Greater innovative thinking is required to rise to these challenges so that the chances of attaining success can be enhanced for the majority of students.

WHAT PICTURE IS FORMED ABOUT WHAT IS HAPPENING IN HIGHER EDUCATION?

The data presented here allow us to gauge our progress in creating educational environments conducive to student success and development. From an equity perspective, black African students seem to engage more than their other racial counterparts in all indicators, except for Discussion with Diverse Others. Similarly, first-generation students seem to find the campus environment supportive, and engage more with staff and peer learning. First-year students also indicate more than

seniors that they experience a supportive campus environment, apply more learning strategies, and experience effective teaching practices, which could be attributed to a widespread movement to increase transitional support for first-year students.

While these findings are encouraging, others point to concerns which need to be addressed. For example, only slightly more than half of the general student sample indicated that they engage in reflective and integrative learning, and 32% do not engage in higher-order learning. Both indicators are essential learning practices to master if we were to educate students according to the type of graduates or learning outcomes expected of higher education nationally and globally. Furthermore, less than half of students indicated that they engage in quantitative reasoning. This indicator extends beyond whether students are able to do math and incorporates drawing conclusions from analyses, linking numerical information to real-world issues and evaluations of others' numerical conclusions – all of which are important transferable skills. A final noteworthy finding is the lack of interaction between students and staff, which is measured through noting the frequency in which students have discussions with their lecturers about career plans, academic performance, subject topics outside of class, and working with staff members on different projects. Since lecturers could be viewed as the primary academic (and sometimes non-academic) contact between students and the institution, we need to find ways to encourage these interactions.

In sum, what we can learn from the findings reported and subsequent questions posed in this chapter, is that South African higher education needs to reflect on the issues raised in the following paragraphs.

Raising the level of challenge and quality of support

The level of academic challenge that students, especially senior students, experience has to increase. The results support the positive relationship between reading and class preparation and higher-order learning. For senior students in particular, including more writing opportunities facilitates the development of higher-order learning, as well as reflective and integrative learning. To help students meet the increased academic challenge demands it is important that institutions provide students with high-quality academic skills development and support to enable them to develop and apply effective learning strategies. However, SASSE findings suggest that although certain groups apply useful learning strategies, the effectiveness of these strategies could be questioned if the academic performance of these groups does not show substantial increase. Alternatively, it might be that the generic strategies provided by academic development facilitators need to be embedded in disciplines and be reinforced in class by lecturers.

Facilitating diverse collaboration to expand support

The analyses suggest that institutions need to be more intentional about encouraging and creating opportunities for students to participate in collaborative learning opportunities. Collaborative learning helps students to become part of learning communities, which is one of the high-impact practices linked to improving student success. By creating collaborative learning opportunities, institutions can facilitate student conversations with diverse others. The findings show that discussion with diverse others increases students' perceptions of their campus environment as being supportive. Therefore, an intentional focus on creating these opportunities will not only further social cohesion, but also enhance students' chances of success.

Encouraging effective teaching practices and interactions with staff

The findings show that senior students report experiencing less effective teaching practices. Students perceive effective teaching as being directly related to developing higher-order learning. Conscious efforts to encourage reflective and integrative learning should also accompany consideration of effective teaching practices. The very low levels of student-staff interaction point to the need for innovative approaches in current resource constrained environments. The use of more effective teaching practices, such as the flipped classroom approach, blended and online learning, peer-facilitated learning (Supplemental Instruction and tutorials) and the use of technology to assist in more effective feedback and marking, could create opportunities for more frequent and high-quality interactions during class time and outside of class in the online environment. This could also create space for the development of undergraduate research and community engagement initiatives which would further promote student-staff interaction. One could also question whether getting academics to participate in discipline-linked co-curricular activities would help to facilitate interaction between staff and students?

Optimising resources to create success-oriented campus environments

There appears to be a consistent negative perception of the relationship between students and administrative staff. The quality of these relationships poses a strategic opportunity for institution-specific reflection on what the drivers are behind this persistent perception. Does having survey findings available offer an opportunity for conversations between administrative staff and students about how communication and interaction could be improved? Could these conversations help create a more supportive environment despite resource constraints?

Redesigning the senior experience for more equitable outcomes

Throughout the analyses it became clear that senior students experience less academic challenge and support. As these students comprise the majority of students in higher education, finding innovative approaches to support them in a resource constrained environment has the potential to create a significant shift in throughput rates.

Deepening data analysis to enrich understandings of student engagement

While there is a strong argument for gathering data on student engagement in learning through *inter alia* using the SASSE, an equally strong argument has been made throughout this chapter that the resultant data need to be comprehensively 'mined'. While high-level analyses of trends using summative variables (e.g., the engagement indicators of the SASSE) are useful, such analyses can be enhanced through the following:

- Adopting an intersectional approach to compare groups of students within and across institutions using a range of grouping variables (e.g., race, gender, field of study, generational status, and year of study) and applying univariate and multivariate analysis techniques.
- Asking questions about the meaning of the findings and conducting post hoc (i.e., further) analyses to explore these questions.
- Drilling down to item level data as this provides nuances and very useful information that guide the development of both a meaningful understanding of the findings and effective intervention strategies.
- Triangulating other institutional data (e.g., academic performance) with survey data which can validate and enhance findings.
- Conducting further studies to explore questions that arise from the findings that can't be answered based on existing data (e.g., why do black African students use more learning strategies than students from other groups and yet we still find that there is not equity of outcomes in terms of academic success across race groups?).

CONCLUDING THOUGHTS

The chapter initially raised the question of the critical role higher education should play in helping to address historic inequalities and furthering economic development. Higher education policy and efficiency indicators such as dropout, success and throughput rates indicate that South African higher education needs to do better. It was argued that student engagement data provide an important link between higher education research and practice through providing institutions with actionable data and information. The most important driver behind student engagement is to improve the quality of undergraduate education. The value of providing institutions

with reports and data files is that the data can be used as a catalyst for conversations by allowing institutions to make relative comparisons between groups of students and between different institutions. The relative nature of these comparisons is because survey data are not perfect and therefore the results always need to be carefully and contextually interpreted. These comparisons enable institutions to identify how resources can be deployed based on evidence, ideally where student engagement data is considered along with other institutional data, instead of making strategic decisions based on anecdotal information.

As has become evident in this chapter, the use of student engagement and other institutional data to develop targeted support for specific students could offer a solution that could help to transform the outcome of South African higher education. Yet the data also unearthed pertinent questions that need further examination, for example, is higher education failing in a key task to encourage a sense of social justice, diversity appreciation and social cohesion? What could these and other data sources tell us about addressing achievement gaps? And how could we build on creating a culture of evidence which would ultimately contribute to higher education policy and systemic prioritisation of interventions to promote student success and development?

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APPENDIX A

Statistical significance of indicators between first-year and senior students

Indicator	Mean	Standard Deviation	t	Significance	Cohen's d
Males					
Higher-Order Learning	FY: 39.60 SNR: 41.42	FY: 12.618 SNR: 12.867	-19.117	0.000*	0.13
Reflective and Integrative Learning	FY: 32.99 SNR: 34.43	FY: 10.442 SNR: 10.592	-20.746	0.000*	0.14
Learning Strategies	FY: 40.24 SNR: 39.55	FY: 12.505 SNR: 13.310	8.089	0.000*	0.05
Quantitative Reasoning	FY: 28.21 SNR: 29.44	FY: 14.233 SNR: 15.247	-12.760	0.000*	0.08
Collaborative Learning	FY: 36.76 SNR: 38.89	FY: 12.763 SNR: 12.692	-25.101	0.000*	0.17
Discussion with Diverse Others	FY: 39.52 SNR: 38.67	FY: 15.423 SNR: 15.268	8.327	0.000*	0.05
Student-Staff Interaction	FY: 16.88 SNR: 18.87	FY: 13.958 SNR: 14.730	-21.131	0.000*	0.14
Effective Teaching Practices	FY: 40.76 SNR: 41.18	FY: 13.677 SNR: 13.768	-4.647	0.000*	0.03
Quality of Interactions	FY: 36.87 SNR: 37.21	FY: 12.652 SNR: 13.137	-3.878	0.000*	0.03
Supportive Environment	FY: 32.20 SNR: 32.70	FY: 14.967 SNR: 14.785	-5.087	0.000*	0.03
Females					
Higher-Order Learning	FY: 40.87 SNR: 40.79	FY: 12.743 SNR: 13.313	1.013	0.311	0.01
Reflective and Integrative Learning	FY: 34.05 SNR: 34.11	FY: 10.398 SNR: 10.829	-0.974	0.330	0.01
Learning Strategies	FY: 41.09 SNR: 39.70	FY: 12.714 SNR: 13.021	17.525	0.000*	0.11
Quantitative Reasoning	FY: 25.92 SNR: 25.48	FY: 15.329 SNR: 15.534	4.704	0.000*	0.03
Collaborative Learning	FY: 37.85 SNR: 38.91	FY: 12.796 SNR: 12.909	-13.373	0.000*	0.08
Discussion with Diverse Others	FY: 37.98 SNR: 38.1	FY: 16.785 SNR: 15.707	-1.148	0.251	0.01
Student-Staff Interaction	FY: 14.39 SNR: 16.94	FY: 12.604 SNR: 14.103	-31.467	0.000*	0.19
Effective Teaching Practices	FY: 42.91 SNR: 41.33	FY: 12.948 SNR: 13.972	19.260	0.000*	0.12
Quality of Interactions	FY: 37.11 SNR: 36.05	FY: 13.246 SNR: 12.923	12.796	0.000*	0.08
Supportive Environment	FY: 35.36 SNR: 33.69	FY: 14.242 SNR: 15.152	18.690	0.000*	0.11

Indicator	Mean	Standard Deviation	t	Significance	Cohen's d
First-generation					
Higher-Order Learning	FY: 40.27 SNR: 41.25	FY: 12.762 SNR: 13.058	-14.074	0.000*	0.08
Reflective and Integrative Learning	FY: 33.42 SNR: 34.45	FY: 10.457 SNR: 10.574	-18.310	0.000*	0.10
Learning Strategies	FY: 41.09 SNR: 40.25	FY: 12.561 SNR: 12.980	12.179	0.000*	0.07
Quantitative Reasoning	FY: 27.33 SNR: 27.74	FY: 14.776 SNR: 15.532	-5.043	0.000*	0.03
Collaborative Learning	FY: 37.99 SNR: 39.56	FY: 12.562 SNR: 12.599	-23.073	0.000*	0.12
Discussion with Diverse Others	FY: 37.50 SNR: 37.76	FY: 16.632 SNR: 15.563	-2.872	0.004*	0.02
Student-Staff Interaction	FY: 16.05 SNR: 18.31	FY: 13.052 SNR: 14.362	-31.248	0.000*	0.16
Effective Teaching Practices	FY: 42.33 SNR: 42.22	FY: 13.200 SNR: 13.584	1.543	0.123	0.01
Quality of Interactions	FY: 37.86 SNR: 37.20	FY: 12.730 SNR: 13.066	9.322	0.000*	0.05
Supportive Environment	FY: 34.17 SNR: 34.29	FY: 14.435 SNR: 14.830	-1.587	0.113	0.01
Non-first-generation					
Higher-Order Learning	FY: 40.25 SNR: 40.27	FY: 12.558 SNR: 13.235	0.103	0.918	0.00
Reflective and Integrative Learning	FY: 33.85 SNR: 33.72	FY: 10.367 SNR: 11.105	1.428	0.153	0.01
Learning Strategies	FY: 39.78 SNR: 37.94	FY: 12.718 SNR: 13.467	16.880	0.000*	0.14
Quantitative Reasoning	FY: 26.25 SNR: 26.01	FY: 15.038 SNR: 15.454	1.958	0.050**	0.02
Collaborative Learning	FY: 35.85 SNR: 37.11	FY: 13.180 SNR: 13.207	-11.351	0.000*	0.10
Discussion with Diverse Others	FY: 41.45 SNR: 40.00	FY: 14.723 SNR: 15.247	11.560	0.000*	0.10
Student-Staff Interaction	FY: 14.45 SNR: 16.47	FY: 13.843 SNR: 14.503	-17.075	0.000*	0.14
Effective Teaching Practices	FY: 40.87 SNR: 38.64	FY: 13.612 SNR: 14.334	19.158	0.000*	0.16
Quality of Interactions	FY: 34.94 SNR: 34.80	FY: 13.310 SNR: 12.777	1.216	0.224	0.01
Supportive Environment	FY: 33.20 SNR: 30.37	FY: 15.188 SNR: 15.063	22.336	0.000*	0.19

Indicator	Mean	Standard Deviation	t	Significance	Cohen's d
Black African					
Higher-Order Learning	FY: 41.28 SNR: 41.55	FY: 12.509 SNR: 13.042	-3.905	0.000*	0.02
Reflective and Integrative Learning	FY: 34.01 SNR: 34.52	FY: 10.234 SNR: 10.446	-9.214	0.000*	0.05
Learning Strategies	FY: 41.81 SNR: 40.40	FY: 12.410 SNR: 12.987	20.609	0.000*	0.11
Quantitative Reasoning	FY: 27.89 SNR: 28.07	FY: 14.727 SNR: 15.220	-2.293	0.022**	0.01
Collaborative Learning	FY: 38.75 SNR: 40.11	FY: 12.773 SNR: 12.544	-19.672	0.000*	0.11
Discussion with Diverse Others	FY: 36.58 SNR: 36.89	FY: 16.186 SNR: 15.309	-3.514	0.000*	0.02
Student-Staff Interaction	FY: 16.50 SNR: 18.76	FY: 13.492 SNR: 14.579	-30.193	0.000*	0.16
Effective Teaching Practices	FY: 43.86 SNR: 42.95	FY: 12.687 SNR: 13.564	13.011	0.000*	0.07
Quality of Interactions	FY: 37.65 SNR: 37.10	FY: 12.887 SNR: 13.072	7.850	0.000*	0.04
Supportive Environment	FY: 36.04 SNR: 35.45	FY: 14.238 SNR: 14.561	7.571	0.000*	0.04
White					
Higher-Order Learning	FY: 37.73 SNR: 39.59	FY: 12.535 SNR: 13.254	-12.245	0.000*	0.14
Reflective and Integrative Learning	FY: 32.24 SNR: 33.47	FY: 10.891 SNR: 11.073	-9.438	0.000*	0.11
Learning Strategies	FY: 37.51 SNR: 38.21	FY: 12.565 SNR: 13.375	-4.593	0.000*	0.05
Quantitative Reasoning	FY: 24.52 SNR: 24.76	FY: 15.551 SNR: 16.472	-1.308	0.191	0.01
Collaborative Learning	FY: 34.42 SNR: 35.22	FY: 12.613 SNR: 13.085	-5.250	0.000*	0.06
Discussion with Diverse Others	FY: 41.67 SNR: 41.87	FY: 14.829 SNR: 15.451	-1.096	0.273	0.01
Student-Staff Interaction	FY: 12.15 SNR: 14.99	FY: 11.741 SNR: 13.502	-19.227	0.000*	0.21
Effective Teaching Practices	FY: 36.41 SNR: 35.68	FY: 13.546 SNR: 12.954	4.623	0.000*	0.05
Quality of Interactions	FY: 35.16 SNR: 36.63	FY: 12.960 SNR: 12.333	-9.157	0.000*	0.12
Supportive Environment	FY: 27.95 SNR: 27.08	FY: 14.015 SNR: 13.387	5.247	0.000*	0.06

Indicator	Mean	Standard Deviation	t	Significance	Cohen's d
Other					
Higher-Order Learning	FY: 38.45 SNR: 39.50	FY: 13.160 SNR: 13.115	-6.706	0.000*	0.08
Reflective and Integrative Learning	FY: 32.94 SNR: 33.44	FY: 10.786 SNR: 11.796	-3.796	0.000*	0.04
Learning Strategies	FY: 38.95 SNR: 36.60	FY: 12.906 SNR: 13.446	15.007	0.000*	0.18
Quantitative Reasoning	FY: 25.22 SNR: 25.08	FY: 14.404 SNR: 15.916	0.796	0.426	0.01
Collaborative Learning	FY: 33.85 SNR: 35.44	FY: 11.935 SNR: 12.872	-10.789	0.000*	0.13
Discussion with Diverse Others	FY: 45.36 SNR: 43.95	FY: 15.098 SNR: 14.568	7.931	0.000*	0.09
Student-Staff Interaction	FY: 15.00 SNR: 15.08	FY: 13.451 SNR: 13.573	-0.454	0.650	0.01
Effective Teaching Practices	FY: 39.04 SNR: 36.82	FY: 13.712 SNR: 14.206	13.335	0.000*	0.16
Quality of Interactions	FY: 35.46 SNR: 33.60	FY: 13.205 SNR: 13.053	11.279	0.000*	0.14
Supportive Environment	FY: 29.99 SNR: 26.27	FY: 14.960 SNR: 15.208	20.593	0.000*	0.25

*$p < 0.01$; **$p < 0.05$

3 UNDERSTANDING AND SUPPORTING STUDENTS ENTERING HIGHER EDUCATION

Michael Henn, Lana Hen-Boisen &
Hanlé Posthumus

There comes a point where we need to stop just pulling people out of the river. We need to go upstream and find out why they're falling in – Desmond Tutu

INTRODUCTION

Students in their first year of study face potentially sizeable academic and non-academic transitional challenges. According to Department of Higher Education and Training (DHET), attrition rates for first-year students in South Africa have been fluctuating between 33% and 25% in recent years (DHET 2016). Combined with other specified data such as the student engagement surveys, these statistics act as diagnostic indicators to where interventions are most needed. From a systemic South African perspective, there has been a significant shift towards evidence-based decision-making in an effort to bolster success rates, inform policy and identify strategic goals for higher education.

Building on this shift towards an evidence-based culture to help students succeed, this chapter argues for a more nuanced, data-driven approach to identify ways to support students and foster higher levels of engagement. This will be done through describing the Beginning University Survey of Student Engagement (BUSSE) and discussing the potential contributions this source of information can make to understand first-year students' experiences and expectations when entering higher education. This chapter also focuses on how institutions could better support these students if we have a better understanding of who entering students are and how their expectations align with the realities of undergraduate studies.

THE IMPORTANCE OF STUDENT SUCCESS IN THE FIRST YEAR OF UNIVERSITY

Identifying how students can be supported throughout their first year of study has been an important focus for higher education researchers in the United States for over 30 years and many valuable publications have resulted from this effort. While significant progress has been reported in these publications, retaining first-year students is still a global challenge. For example, a United States National Student Clearinghouse report (2014) shows that 69% of first-year students who enrolled in 2012 returned to any institution in 2013. That means that 31% of these students dropped out. Similarly, first-year dropout rates for Australian higher education range between 42% and 7.5% (Burke 2016), and the United Kingdom has reported dropout rates of between 19% and 7% for first-years (Paton 2014). In South Africa, first-year dropout rates vary between 33% and 25% (DHET 2016) and the Council on Higher Education (CHE) estimates that 60% of students who drop out of higher education do so during their first year of study (CHE 2013). Although many factors might impact students' decision to drop out, research suggests that failure to negotiate the transition between school and university makes a significant contribution to the high dropout rates in the first year (Parker, Summerfelt, Hogan & Majeski 2004).

Intensifying transitional challenges is a student's generational status, or whether they are the first in their families to attend higher education. Qualitatively exploring a group of first-generation students' transitional experiences entering higher education in Australia, O'Shea (2009) stresses the lack of legitimate information sources reaching students to help create a realistic view of what to expect. Instead, misconceptions and reflecting on their transitions as a 'learning curve' were prominent for this group of students. In fact, authors such as Pike and Kuh have found that for the most part, first-generation students are at a disadvantage in comparison to non-first-generation students and that "a disproportionately low number of first-generation students succeed in college" (Pike & Kuh 2005:276). However, transitional difficulties are not only limited to first-generation students. Of the 128 students qualitatively interviewed about transitional challenges in a South African study conducted by Wilson-Strydom (2015), most students, irrespective of their race, gender, and school background experienced a dissonance between what they thought university would be like, and the reality they found. Further, Wilson-Strydom found that students faced difficulty with developing an understanding of how the university system and culture works, including application processes, course selection, and qualifying for financial support. In a study of the psychometric properties of the contextualised BUSSE among other focus areas, Mentz (2012) also found that students tend to overestimate their preparedness for university.

First-year students having unrealistic and overoptimistic expectations about their experiences in higher education stretch as far back as the 1960s, which Stern (1966) identified as the "freshman myth". Students tend to enter higher education with overly positive expectations of themselves and of the university, which are often not well matched to their actual experiences during the first year. More recent studies (e.g. Gonyea, Kuh, Kinzie, Cruce & Nelson Laird 2010) have found that students' expectations for participation in a broad range of activities during the first year are not met – and that they systematically overestimate their levels of engagement (Davey 2010; Gonyea, Kuh, Kinzie, Cruce & Nelson Laird 2006). In addition, students tend to overestimate the amount of time they would spend studying, only studying approximately half the amount of time they had anticipated (Babcock & Marks 2010; Gonyea *et al* 2010; Kuh, Gonyea & Williams 2005). Studies in South Africa also reveal a general mismatch between students' high school experiences and university expectations, where students at lower levels of academic achievement in school tend to be over-confident in their ability to adjust to university and perform well academically (Bitzer & Troskie-De Bruin 2004; Nel, Troskie-De Bruin & Bitzer 2009).

There is hope though – studies in the United States have found that explicit interventions targeting student development in the first year of study have had a significant impact on key success indicators such as persistence, academic performance, and nurturing a sense of lifelong learning (e.g. Garza & Bowden 2014; Padgett, Keup & Pascarella 2013; Pike & Saupe 2002). These findings emphasise the importance of the nature and quality of the first-year educational experience as a contributor to students' success and are particularly promising because they highlight that regardless of a students' pre-university characteristics (Reason, Terenzini & Domingo 2006), institutions can intentionally design first-year programmes that meet the needs of diverse and vulnerable students.

That said, for institutions to counter unrealistic expectations and other transitional challenges entering students face, we need to understand who these students are and the challenges they face. Only then would we be able to align support and developmental interventions with students' needs. This is not an easy task though, with thousands of first-year students entering higher education each year. Thus, more large-scale surveys such as the BUSSE are needed in conjunction with institutional data to help us understand who our students are.

THE BEGINNING UNIVERSITY SURVEY OF STUDENT ENGAGEMENT

The BUSSE survey was designed to provide institutions with data about their first-year entering students early in the academic year. It provides actionable data that enable

institutions to identify and address the needs of students as a cohort as well as on an individual level. Through providing a better understanding of who students are and how they could be supported BUSSE provides the opportunity to intervene and support early on in the student journey (Kuh *et al* 2005).

The BUSSE consists of 110 items, contextualised from the Beginning College Survey of Student Engagement (BCSSE) used in the United States. BUSSE items are grouped into nine subscales or indicators (Table 3.1), which provide institutions with the opportunity to engage with the data in a structured form. Seven of the BUSSE indicators measure student expectations for their first year of study and two indicators measure the extent to which they feel their high school prepared them for university.

TABLE 3.1 Subscales comprising the BUSSE survey

Subscales	Description
High School Engagement	
Quantitative Reasoning (QR)	High school engagement with analysis and numerical information
Learning Strategies (LS)	Use of effective learning strategies in high school
First-year	
Collaborative Learning (CL)	Expectation to interact and collaborate with peers
Student-Staff Interaction (SSI)	Expectation to interact and engage with staff
Discussion with Diverse Others (DDO)	Expectation to engage in discussions with diverse others
Expected Academic Perseverance (PER)	Students' certainty that they will persist in the face of academic adversity
Expected Academic Difficulty (DIF)	Expected academic difficulty during the first year of university
Perceived Academic Preparation (PREP)	Students' perception of their academic preparation
Importance of Campus Environment (CAMP)	Student-rated importance that the institution provides a challenging and supportive environment

To explore how the BUSSE could help us understand first-year students' perceptions of their preparedness for higher education and their expectations for their first year of study, we examine aggregated data from the 2015 BUSSE administration of six universities (N=3055).

Figure 3.1 shows the plot of the nine BUSSE mean scale scores. For comparison purposes, the items forming part of each indicator are calculated to represent a value out of 60, and then averaged with the other items in the same scale. From a descriptive perspective, the scales provide some insight into the self-reported grouped competencies and expected experiences of students that enter the institution for the first time.

From an overview of the scales we see that for the most part, students feel that they have developed sufficient learning strategies throughout their high school years. In contrast, a much lower mean of 30 indicates that students are not as confident in their quantitative reasoning abilities developed in high school. Looking ahead to the first year of study, students seem to feel very positive about their academic preparation ($M=50$), their academic perseverance ($M=47$), and about the impact the campus environment could have on their studies ($M=46$). However, medium to lower mean scores show that students do not expect to have many discussions with diverse others, collaborative learning experiences, or interactions with staff members. Probably the most significant finding is the notable difference between how prepared students feel for university versus how difficult they think their first year at university will be (with mean scores of 50 and 25 out of 60, respectively). Considering that these scales are likely to reflect what students are familiar with and how they have previously experienced teaching and learning at school, the need to appropriately acculturate students and support them in managing academic and non-academic transitional challenges is clear.

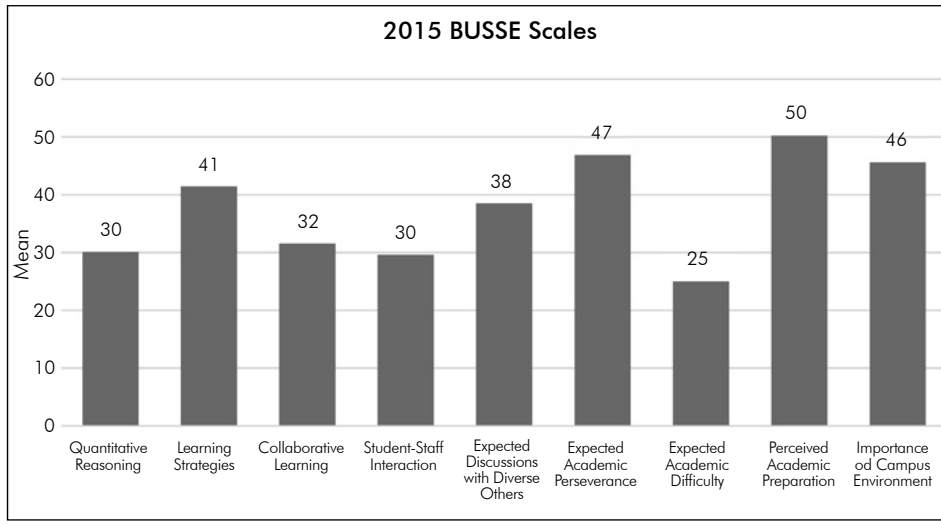

FIGURE 3.1 2015 BUSSE scale scores

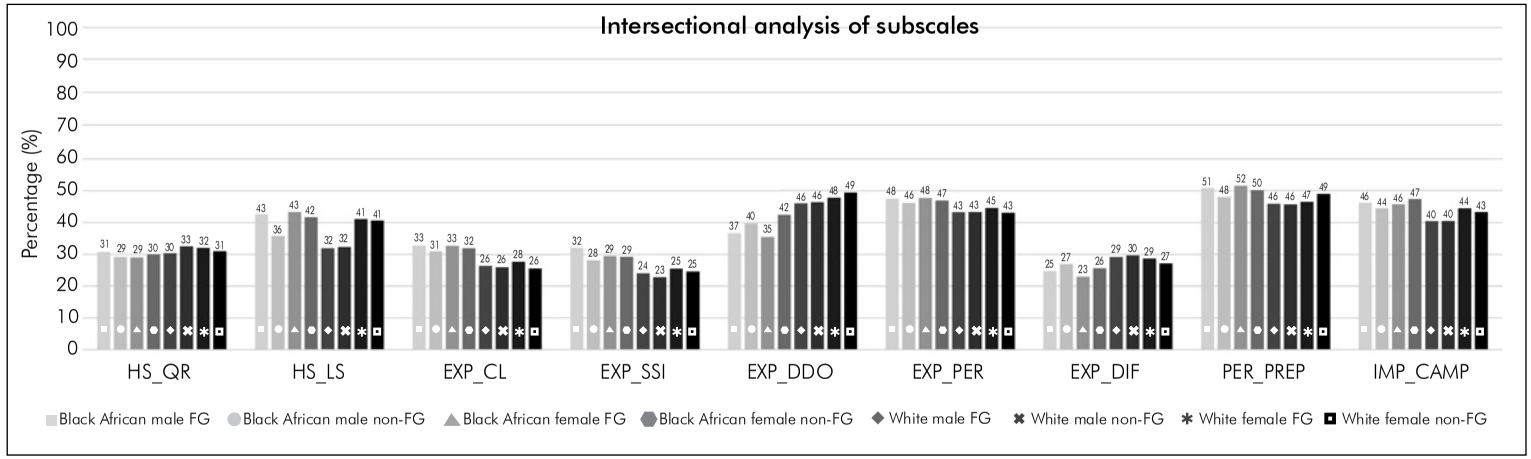

FIGURE 3.2 Intersectional analysis of subscales

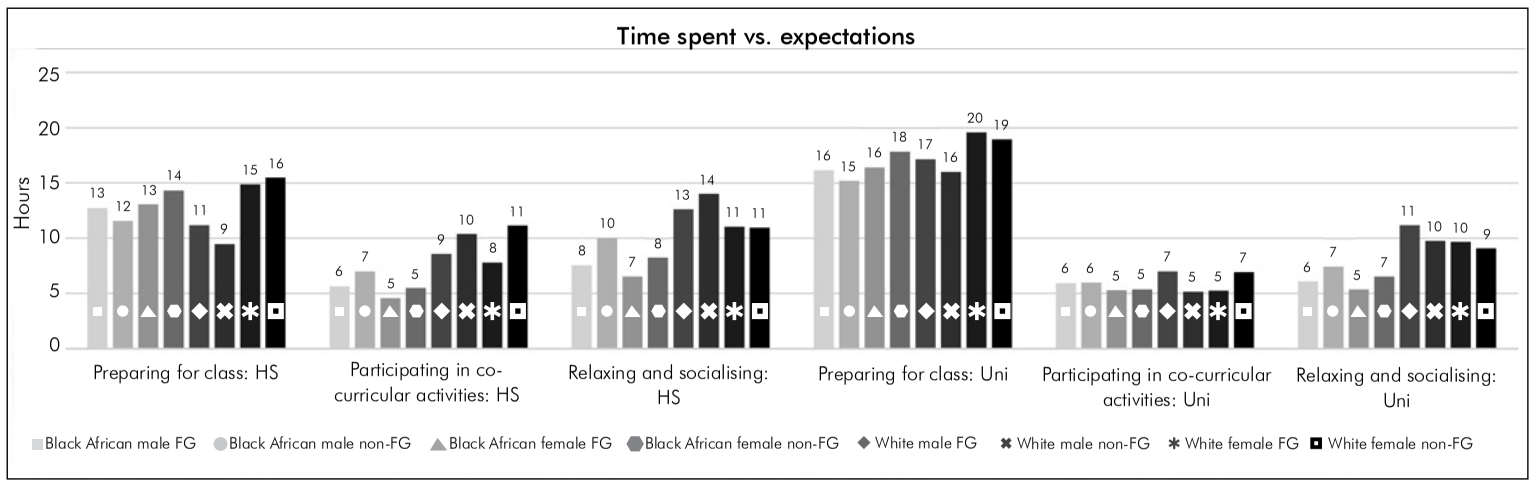

FIGURE 3.3 Hours per week spent on activities: high school vs. expectations for first year

Figure 3.2 shows the results of an intersectional analysis to probe a bit deeper into which students, based on generational status, race and gender, indicate higher or lower mean scores out of 60 on the subscales.

Regarding the two scales representing high school preparedness, all groups, irrespective of generational status, gender or race, indicate moderate to low perceptions of quantitative preparedness. Interestingly, white first-generation (FG) and non-first-generation (non-FG) males indicated significantly lower scores in the frequency of applying certain learning strategies. Both these groups of white males also indicated the lowest means in their expectations of collaborative learning ($M=26$ respectively), interactions with staff (FG $M=24$; non-FG $M=23$), and having a supportive campus environment ($M=40$ respectively). In general, white students, particularly females, expect to have more discussions with diverse others during their first year of study, while black African students in general expect to persevere more. Black African students in general see themselves as more prepared for the upcoming academic year, and do not expect it to be as difficult as their white counterparts do. The gap between expected difficulty of the year ahead and perceived preparedness is at its widest for black African, first-generation students (both male and female).

TRANSITIONING FROM HIGH SCHOOL TO UNIVERSITY

Students face certain difficulties regarding their transition to from high school to university. The BUSSE data are especially helpful in determining whether students feel prepared for the transition process, and how they expect their behaviour regarding academic and non-academic activities will change. This section considers some selected factors impacting on transition challenges and how students expect to engage with them, namely time management, student-staff interaction, perceived preparedness, and expected difficulties.

Time management is one of the main priorities that a first-year student faces (Figure 3.3). Students are asked to report how much time they spent during their last year of high school preparing for class (studying, reading, writing, doing homework, rehearsing, and other academic activities), participating in co-curricular activities (organisations, school publications, student government, sports, etc.), and relaxing and socialising (time with friends, video games, watching TV or movies, sport, mobile and online chatting, etc.). Students are then also asked to estimate how much time they expect to spend on these activities during their first year of study.

When comparing first-generation students, black African men and women expect to spend three hours more than they had spent in high school preparing for class, while white male and female students expect to spend six and five hours more respectively.

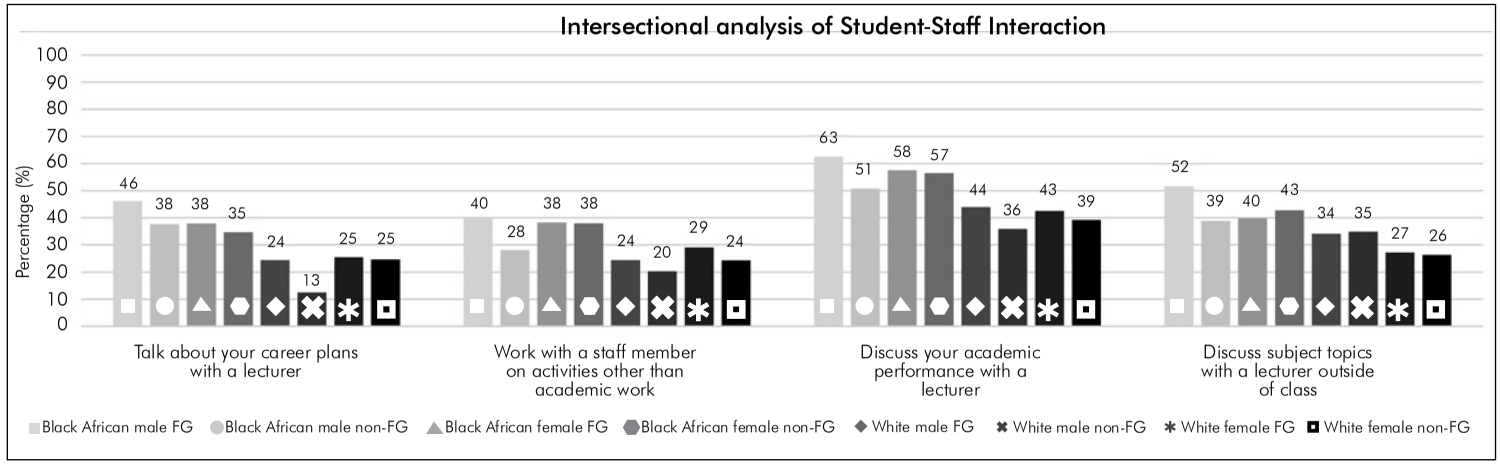

FIGURE 3.4 Student-staff interaction: generation status split

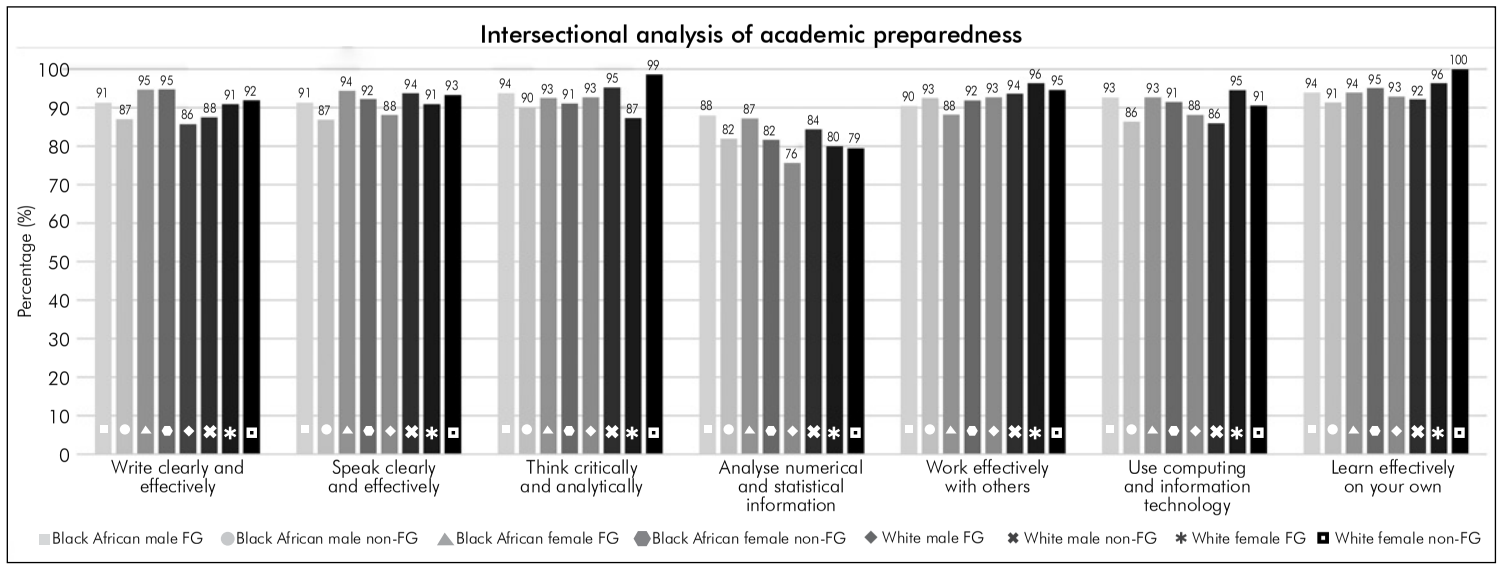

FIGURE 3.5 Perceived preparedness

Black African male non-first-generation students expect to spend three hours more on preparing for class, while white non-first-generation men expect to spend seven hours more. Black African non-first-generation women expect to spend four hours more, while white non-first-generation women expect to spend three hours more. However, all female groups spent more time preparing for class during high school and expect to spend more time than the male groups preparing for class during their first year of study.

Male and female white, non-first-generation students show the most difference in time they expect to spend on co-curricular activities, with males expecting to spend five hours per week less on these activities, and females four hours less. Black African non-first-generation male and female groups expect to spend the same amount of time on co-curricular activities that they spent during high school. While all students expect to spend less time on social activities, black African and white non-first-generation males show the biggest difference in time they expect to spend socialising, with three and four hours less respectively. In general, white students, irrespective of generational status or gender, expect to spend two to six hours more than black African students on social activities.

The student-staff interaction items included for this chapter are: how often do you expect to talk about your career plans with a lecturer, work with a staff member on activities other than academic work (committees, projects, student groups, etc.), discuss your academic performance with a lecturer, and discuss subject topics, ideas, or concepts with a lecturer outside of class (Figure 3.4). Results are shown as the percentage of responses indicating expectations of engaging in such behaviours "Often" and "Very often".

In general, students do not expect much interaction with staff members during their first year of study and black African students, as well as first-generation students seem to expect to interact slightly more with staff. White males, particularly non-first-generation white males, expect least interaction with staff in terms of discussions about career plans, working with staff on projects, and discussing academic performance with a lecturer. White female students of both first and non-first-generational status show the least expectation to interact with lectures outside of class.

Regarding perceived preparation, students were asked how prepared they are to write clearly and effectively, speak clearly and effectively, think critically and analytically, analyse numerical and statistical information, work effectively with others, use computing and information technology, and learn effectively on their own. Figure 3.5 shows that all students, irrespective of gender, race, or generational status believe that they are very well prepared to master their first year of study. In fact, all (100%) white female non-first-generation women indicated that they are completely prepared to learn effectively on their own. Slightly less confident responses are seen

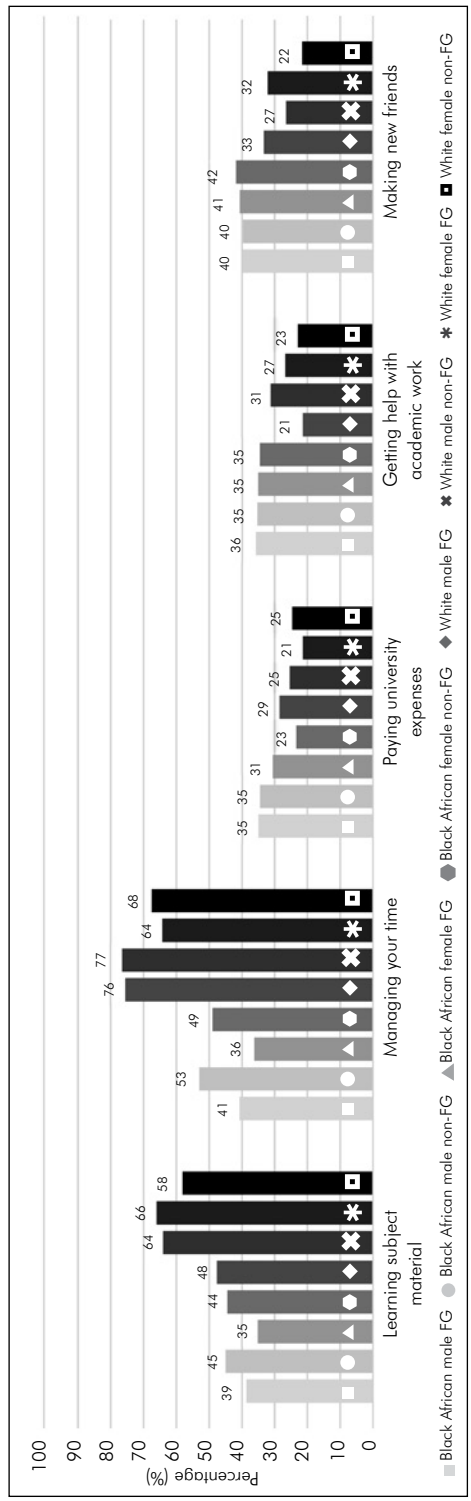

FIGURE 3.6 Expected difficulties

regarding preparedness to analyse numerical and statistical information, with 76% of white male first-generation students being the least prepared group.

Students were asked to indicate on a six-point scale how difficult they think certain scenarios will be during their first year of university, ranging from "Not difficult at all", to "Very difficult". These items include learning subject material, managing your time, paying university expenses, getting help with academic work, and making new friends. Figure 3.6 only presents responses between 3 and 6, representing the higher end of difficulty on the scale.

Less than 40% of respective first-generation black African male and female students feel that learning subject material is going to be difficult during their first year of study. These two groups also stand out as not expecting that managing their time would be very difficult, with 41% of black African first-generation males and 36% of black African first-generation females indicating as such. While none of the student groups attribute particular difficulty to getting help with academic work and making new friends, white female non-first-generation students seem to attribute the least difficulty to these items.

INFLUENCE OF FINANCIAL STRESS ON FIRST-YEAR SUCCESS

An important national focus of higher education in South Africa since 2015 has been student frustration about university fees being unaffordable, with widespread #FeesMustFall protests shutting down many universities for periods of time. To give due attention to students' challenges with fees, which impact significantly on retention, dropout and success, we add some first-year findings from the 2016 administration of the South African Survey of Student Engagement (SASSE), which included a subscale on financial stress.

The BUSSE data in Figure 3.6 show us that black African males, irrespective of their generational status expect most difficulty to pay university expenses, followed by black African female first-generation students, and white male first-generation students.

The Financial Stress Scale (FSS) asks students to what extent they worry about paying for university. Figure 3.7 shows that financial concerns over paying university fees are common to most students, except for almost half of white male and female non-first-generation groups, who report that they never worry about paying fees. The groups most affected by worrying about how they are going to pay for studies are black African male and female first-generation students, of whom half indicate that they worry every day. In general, black African students worry more than white students, and first-generation students worry more than non-first-generation students.

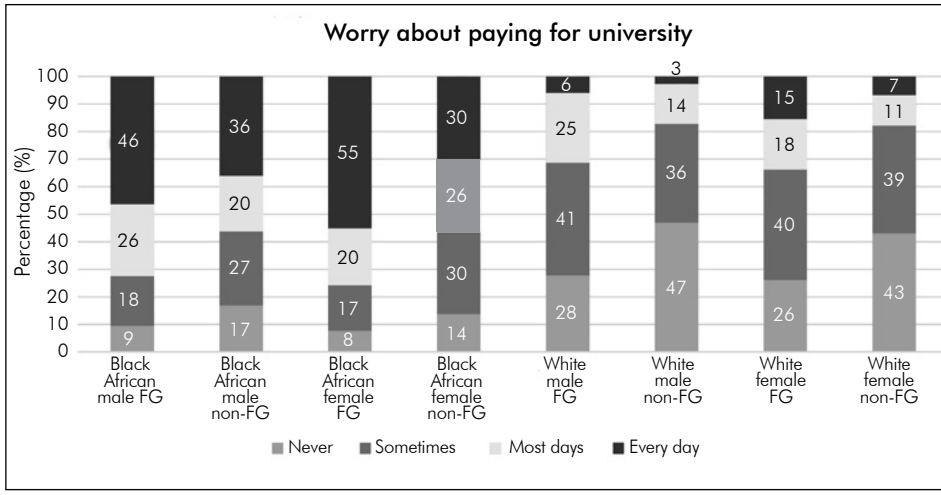

FIGURE 3.7 Intersectional analysis of first-year students worrying about paying for university

Students were asked about food security by indicating whether they have run out of money and are unable to buy more food. Analysing what the first-year students reported, Figure 3.8 shows that most of the students who indicated "Sometimes", "Most days", and "Every day" fall into the black African male first-generation and black African female first-generation groups. Notably, 36% of black African male first-generation students and 34% of black African female first-generation students indicate that they run out of food and cannot afford to buy more on most days or every day. Also noteworthy is the difference between black African students in general, as well as between first and non-first-generation students, where black African and first-generation students report higher incidences of running out of food without being able to buy more.

The FSS also asked students whether they have considered dropping out because of financial reasons. Figure 3.9 shows an analysis of whether students who indicated that they worry about whether they will be able to pay day to day expenses; whether they will be able to pay for university; and whether they have run out of food without being able to buy more on most days or every day, have considered dropping out because of financial reasons. Too few white students were in the study to be included in this analysis. While black African female non-first-generation students show the highest frequency of consideration to drop out (63%), first-generation students show the lowest consideration of drop out. This means that even in the face of hunger and constant stress about finances, students are determined to persist in higher education.

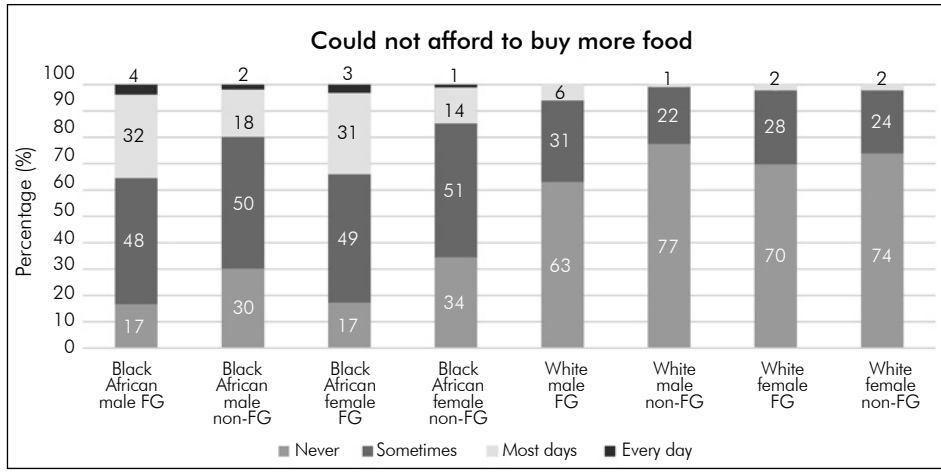

FIGURE 3.8 First-year students who ran out of money and could not afford to buy more food

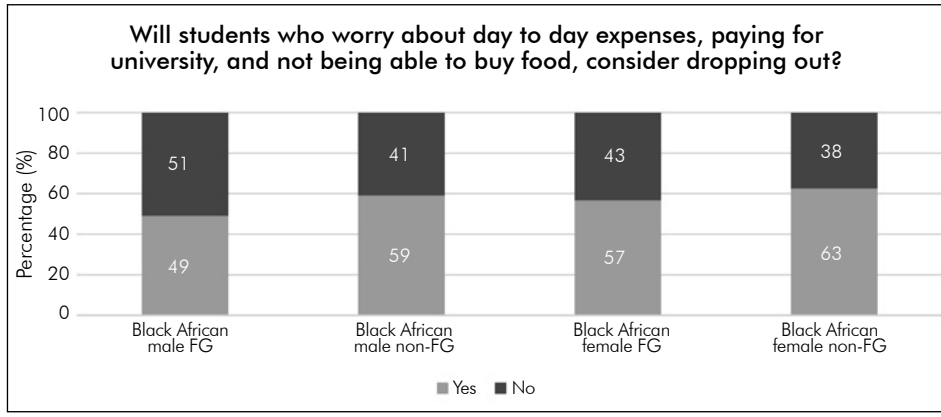

FIGURE 3.9 Students who worry about fees, paying day-to-day expenses and who run out of food and consider dropping out

DISCUSSION

The data presented here help us to better understand the students entering higher education. The intersectional findings show us that white males are (or expect to be) less engaged, have fewer expectations to work with others, to interact with staff, and expect less of the campus environment to contribute to their success. Mentz (2012) reported similar findings, where white males engaged at significantly lower levels than all other groups at high school and expected to engage at significantly lower levels than all other groups during their first year. Mentz's findings, as with this chapter's findings, seem to confirm the "freshman myth", referring to the unrealistic

underestimation of expected difficulties students perceive, combined with an overestimation of their preparedness for university. If then, as authors such as Garza and Bowden (2014), Padgett *et al* (2013), and Pike and Saupe (2002) have found that experiences in the first year can counter some pre-university characteristics and impact development towards success, we need to find out which experiences work in our context to try and level the very unequal playing field students find themselves on when entering university.

This does not mean that we do not have to take the expectations of students lightly. The data presented here regarding black African male and female first-generation students are particularly troublesome. These students show the widest gap between perceived preparedness and expected difficulty; expect time management and learning subject material specifically to be less difficult; expect to spend more time on academics, but still less than other groups; and expect more interactions with staff. More importantly, these groups show the most vulnerability when it comes to financial stress – about paying for university fees – but also about where their next meal is going to come from. The data tell us that black African students, and particularly first-generation students who worry about paying day to day expenses, who worry about paying university fees, and who experience food insecurity are more determined to stay in university. The promise of what a better life higher education brings seems to be a very strong motivating factor for these students.

HOW WE CAN USE DATA TO BETTER SUPPORT OUR STUDENTS TOWARDS SUCCESS

Using data/evidence to inform practice is at the core of the student engagement surveys. Thus, for institutions to optimally align the use of BUSSE and other data sources with support structures, the first step would be to identify what we are aiming for. In other words, what do we mean by first-year student success. Upcraft, Gardner and Barefoot (2005:8-9) state that most institutions would define first-year student success as including one or more of the following:

- Developing intellectual and academic competence (including critical thinking, problem solving, and reflective judgement).
- Establishing and maintaining interpersonal relationships (particularly to help them with transitional challenges).
- Exploring identity development.
- Deciding on a career.
- Maintaining health and wellness.
- Considering faith and the spiritual dimensions of life.
- Developing a multicultural awareness.
- Developing civic responsibility (a sense of citizenship in a democratic society).

While this comprehensive definition is ideal, to do these developmental milestones justice means that measuring and tracking success would rely primarily on qualitative interpretations of the extent to which these milestones have developed throughout the first year of study. However, considering the complexities first-year students face with transitions, the developmental phase most of them are in, and how professional identities are shaped through interactions with knowledge, we need to find ways to move beyond measuring persistence to the second year of study and academic achievement as the sole quantifiable indicators for success.

If our definition of success for students in their first year of study is broadened to include development in personal, social, cultural, and academic spheres, we can consider the following interventions to support them:

- The disconnect between students' expectations about their abilities and the difficulties they can expect in their first year of study prompt us to reconsider how the institutional culture and campus environment could be used to facilitate the transition between expectations and realities.
- Factors which might be inhibiting engagement during the first year need to be identified in order to establish a more facilitating teaching and learning culture (Howard 2005). Research in this area can in turn inform staff development initiatives aimed at the renewal of teaching and learning practices that meet the needs of modern day student populations within the classroom context (Mentz 2012).
- Data obtained from the BUSSE early in the students' career can form part of a comprehensive early warning system to identify students at-risk and to design customised interventions. Through disaggregating data, institutional researchers can identify groups of students within faculties who report high or low expectations to engage at university and link these with other institutional data. The data could then be used to reach out to students and provide necessary referrals to support structures.
- By identifying these trends and communicating the results through to teaching and learning structures the BUSSE results can be used to inform the type of support provided to targeted groups of students. For example, informing high-impact practices, such as first-year seminars, or forming learning communities.
- BUSSE results could inform individualised support, such as generating academic advising profiles to help guide students toward reaching their academic and career goals.
- Analysis of BUSSE data could also be used to inform academic and non-academic staff development. If staff are aware of the expectations and difficulties students enter higher education with, they might be more understanding when planning lecturers or explaining financial aid options.

- BUSSE data could also play a central role in planning first-year orientation programmes, student pathway programmes and academic support programmes.
- When examining student retention, the focus should not only be on identifying the reasons why students drop out, but also on the reasons why some students chose to persist in their studies and how this persistence and engagement is enacted at an individual level (O'Shea 2009).
- We still know very little about how student finances (or lack thereof) impact retention, dropout and success. A recent national report on the relationship between financial support on access and success in England, found that "students receiving financial support have comparable non-continuation rates with students who do not receive financial support. Yet ... students in receipt of financial support report that it has enabled them to stay on course and that they consider withdrawing less than their peers" (Nursaw Associates 2015:4). Challenges related to student poverty are often not solely solved through money. Much more research is needed to try and understand what students are going through financially for institutions, private organisations, and government to assist them.

Each of these trends identified in the BUSSE data offer some information to institutions to answer the question "Who are our students?", which can be meaningfully used to design teaching and learning environments that are conducive to success. Aggregated BUSSE data provide us with a deeper understanding of what certain groups of students expect when they enter higher education as well as how prepared they feel to manage these expectations. BUSSE also has the potential to contribute to personalised learning and support. From an equity perspective, looking at each individual student within their unique context can provide valuable insight into their lives, desires and expectations. Through focusing on the student as a unique person, the institution can better understand the challenges that students regularly face and customise directed intentional support structures to help these students overcome their challenges. To achieve this there must be institutional commitment towards data-driven decision-making.

CONCLUSION

Student engagement data provide the institution with a broader context of the students it serves. For first-year students, the BUSSE data enable an overview of which groups need more support, as well as a more nuanced approach to individualised decision-making. Integrating student engagement data with institutional data can enable the institution to act instead of reacting, further building on the notion that the ever-changing student perspective can be appreciated by focusing on the individual student's needs in an effort to optimise the learning experience of

each student. The BUSSE scale analysis elucidated the differentiation in response characteristics amongst particular students and by exploring these characteristics it enables the institution to better understand its first-year entering students. The implications of student engagement data add to the knowledge of the field and is even more powerful when combined with other information about students collected at application and registration.

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4 BUILDING ACADEMIC CAPACITY THROUGH STUDENT ENGAGEMENT

Francois Strydom, Lana Hen-Boisen & Nan Yeld

Learning expands great souls – Namibian proverb

INTRODUCTION

The need to develop the next generation of academics and research capacity is particularly urgent on the African continent and in South African higher education (Denney, Mitchell & Wheat 2015; Department of Higher Education and Training [DHET] 2017). This capacity has to be developed in a higher education context characterised by pressure of transformative emergent technologies, scarce and constrained (human and financial) resources, lack of student financial aid and increased accountability demands based on concerns about the efficiency of higher education from government, private companies and donors (Kuh *et al* 2015).

Quinn (2012) points out that higher education has the responsibility to substantially improve its effectiveness and efficiency. What is required is to reduce wastage and improve the educational process within the system. This would depend on recognising the importance of effective teaching and education development support as the core business of an institution and the reconceptualisation of recruitment and promotion systems to differentiate and recognise the contribution that staff with a focus on research and those that focus on teaching and learning can bring (Scott 2009). In addition to improving the quality and status of teaching, South Africa, like other countries, is confronted with an ageing academic workforce. There have also been many calls for the transformation of the composition, size and capacity of academic staff, which has not changed significantly enough to represent post-apartheid South Africa. Further, given the complexity of the role of academics today, where good teaching, research and social responsiveness are expected, coupled with the

recruitment of sizeable cohorts of new young staff and the demonstrable current inefficiencies of the educational processes, systematic improvements in respect of the effectiveness of lecturers in their roles as educators must be accorded a higher priority than has traditionally been the case.

Such recognition of the role of educators will also highlight other pivotal roles that academic staff play in higher education systems, such as role models, mentors and guides (Kuh, Kinzie, Schuh & Whitt 2010). That said, there is limited research focusing on lecturers' expectations of students' learning, their general teaching and learning practices, and on the need to align the lecturer-student relationship to promote student success, especially in South Africa. Considering the vital importance of such matters in the higher education project and the need to identify avenues where development initiatives could be targeted, this chapter will focus on helping to develop an evidence-based understanding of how lecturers today think about and practice effective teaching and learning. This will be undertaken from a student engagement perspective, which encompasses the important roles lecturers play as mediators between students and institutions. Such understanding, it is argued, will provide solid grounds for effective staff development interventions.

CURRENT SYSTEMIC INTERVENTIONS FOR STAFF DEVELOPMENT AND TRANSFORMATION

Since 2008/2009 the DHET has implemented a dual institutional grant system to promote teaching and learning, and research. Following the recommendations of a national funding review, the two grants are being consolidated to form a single University Capacity Development Grant (UCDG). The consolidated grant will be guided by the University Capacity Development Programme (UCDP), which intends to intensify transformation goals at universities, while also enhancing quality, equity and success at universities (DHET 2017). The UCDP consists of the following three sub-programmes and activities, which aim to target current challenges impacting students, staff, and innovative programme development:

Sub-programme 1: Student development

Successfully guiding students through higher education remains a big challenge. While participation rates of students in higher education have increased substantially, prominent challenges such as low throughput/high dropout rates, achievement gaps, transitional issues amongst first-year students, and challenges first-generation students face are targeted through this sub-programme. Student development initiatives will focus on enhancing undergraduate and postgraduate student success

at institutions. This can most effectively be achieved by utilising evidence-based data as an indication to decision-makers on what activities are likely to yield the most benefit. Such high-impact activities include interventions such as first-year experience programmes, tutoring and mentoring programmes, academic support programmes as well as supplementary instruction programmes (see Chapter 5 in this book for more details about high-impact practices). Academic advising initiatives should then be designed to direct students to such activities to maximise their benefit. The students who are involved in these activities and who show great potential and interest in an academic career, should be included in early development opportunities.

Sub-programme 2: Programme development

The UCDG will assist universities with introducing new initiatives and programmes that have been identified as either a national priority and/or an institutional and regional priority in the higher education sector. This includes specifically piloting new technologies that should further staff development at universities. It is also important that the curriculum in South African institutions be transformed, and it is planned that funding will be made available for creating innovative curricula to address transformation requirements.

Sub-programme 3: Staff/academic development

Beyond the challenge of improving the status and quality of teaching mentioned earlier, challenges regarding academic staff include a skewed student-staff ratio, a lack of racial transformation in terms of staff appointments, too few academic staff with PhDs, and a large proportion of academic staff nearing retirement age. In recognition of these issues, in January 2015 the *Staffing South Africa's Universities Framework* (SSAUF) was approved as part of the UCDG in an effort to develop professional staff at South African Universities (DHET 2017). As seen in Table 4.1, the SSAUF comprises of four academic and two support staff development programmes.

TABLE 4.1 Proposed programmes for the SSAUF

SSAUF: Academic and staff development programmes	
Nurturing Emerging Scholars Programme (NESP)	Aimed at developing senior undergraduate students and early postgraduate students (honours degree) who may be interested in an academic career.
New Generation of Academics Programme (nGAP)	Established to develop and recruit new academics that meet the set equity requirements and contribute to disciplinary areas that are required the most.
Existing Staff Capacity Enhancement Programme (ESCEP)	Designed to develop existing and newly appointed academics through developmental workshops, seed grants to continue with qualifications, teaching awards, and developing the scholarship of teaching and learning amongst others.
Higher Education Leadership and Management Programme (HELMP)	Intended to develop university staff who are involved in leadership and management positions or are interested in these positions.
SSAUF: Supporting programmes	
Supplementary Staff Employment Programme (SSEP)	Enables universities to recruit temporary staff with certain skills to assist with the implementation of the SSAUF academic and staff development programmes.
Staffing South African's Universities Development Programme (SSAU-DP)	Supports the core programmes with teaching and learning development, research development and professional development needs.

The New Generation of Academics Programme (nGAP) programme recruits annually and has involved the recruitment of over 100 new young academics in 2015, and an additional 75 new academics in 2016. An important transformational aspect of the programme is that the nGAP posts are permanent positions despite the target group (young black South Africans) being appointed at an earlier stage of academic development than has traditionally been the case. So, by way of illustration, the nGAP programme makes it possible for talented young scholars to be appointed with only a master's degree, and to study towards a PhD. That the posts are permanent is a major incentive for young staff who often have onerous family responsibilities and cannot take the risk of a short-term contract post: this is a distinguishing feature of the nGAP. This initiative is therefore responsive to most, if not all the challenges mentioned earlier. Along with the nGAP programme, and of relevance to the strong emphasis of the UCDG to incorporate evidence-based data relating to the areas of importance, is the focus on developing current lecturers to impact the quality

of student learning. This brings us to the focus of this chapter – to explore how data from the Lecturer Survey of Student Engagement (LSSE) can contribute to our understanding of what happens in teaching and learning contexts and where we can intervene to provide support and development.

USING STUDENT ENGAGEMENT DATA TO FURTHER STAFF DEVELOPMENT

Student engagement research is not only focused on students' voices, but also the opinions and responses of the lecturers teaching today's students. The LSSE was adapted from the Faculty Survey of Student Engagement (FSSE), widely used in the United States, and designed to accompany and complement the South African Survey of Student Engagement (SASSE). Because the UCDG requires institutional capacity development plans to be evidence based and data informed, the LSSE results could contribute significantly to evaluate grant objectives (DHET 2017). The LSSE measures lecturer expectations regarding students' engagement in educational behaviours that are empirically linked with high levels of learning development. To gain insight into the ways in which lecturers think about student engagement, the LSSE also measures the degree to which they themselves are involved and invested in understanding student populations of undergraduate students at the university.

To this end, the survey collects information on how lecturers spend their time on professional activities, such as teaching and research, and the kinds of learning experiences their institutions emphasise. It also provides valuable information on what staff think is important in teaching and learning, as well as information on how lecturers' perspectives agree and disagree with those of students. The results can be used to identify areas of institutional strengths as well as aspects of the undergraduate experience that may warrant attention. The results can also be incorporated into student engagement results (from the SASSE) to create a greater understanding of the impact lecturer activities have on student learning and involvement. The information is intended to serve as a catalyst for discussions and developmental interventions in areas related to staff development programmes, scholarship of teaching and learning (SoTL) initiatives, assessment, institutional research, and curriculum reform. The following results from the 2014 LSSE administration demonstrate the contribution and implications of the data in relation to academic staff development.

THE 2014 NATIONAL LSSE SAMPLE

In the LSSE administration of 2014, 1 119 lecturers across eight higher education institutions completed the survey (response rate of approximately 16%). Most of the sample (57%) was from traditional universities, 11% from universities of technology,

17% from comprehensive universities, and 15% from private institutions. Of the sample, 44% were male and 56% female. The largest portion of the sample consisted of white individuals (59%) with 20% black African participants. The sample of black African staff members participating in the survey is slightly lower than black African academic staff representation at the eight universities during 2014, which ranged from 23% to 94% (DHET 2016). Staff were mostly Afrikaans (45%) and English-speaking (32%), and most of the lecturers were employed on a full-time basis (86%).

In the LSSE 2014 survey the faculties were grouped into four categories:

- Business, Economics and Management
- Human and Social Sciences
- Sciences, Engineering and Technology
- Education

Just over a third of the sample's broad academic discipline falls in the category of Science, Engineering and Technology (36%) and another third in Human and Social Sciences (31%). Staff employed in the Business, Economics and Management discipline comprised 21% of the sample and staff from Education made up the smallest part of the sample at 12%.

Staff were asked to indicate their academic rank, title or current position. Most of the sample indicated that they are employed at the level of lecturer (45%) and almost a quarter of the sample as senior lecturers (24%). The portion of the sample who are appointed as associate professors and professors make up 8% and 7% of the sample, respectively. Almost a third of the sample in this administration of LSSE was 34 years of age or younger (31%) and 18% of the sample was above 55 years of age. Most of the staff reported that they have postgraduate degrees, with 36% indicating that they had attained doctoral degrees and 39% attained master's degrees. When comparing lecturers' age to their highest qualifications (Table 4.2), it is clear that the majority (41%) of the youngest cohort of 34 or younger had obtained master's degrees, and 10% of the youngest cohort had obtained doctoral degrees. For the age group between 35 and 44, the majority of the lecturers' highest qualification was either a doctoral degree (37%) or a master's degree (44%). When looking at lecturers over the age of 45, the majority had obtained doctoral degrees.

TABLE 4.2 Comparison of lecturers' age and highest qualification

Highest qualification	Age (years)					
	34 or younger (N=335)	35-44 (N=285)	45-54 (N=266)	55-64 (N=171)	65 or older (N=20)	Total (N=1077)
Doctoral	10%	37%	49%	61%	55%	36%
Masters	41%	44%	38%	29%	40%	39%
Honours	27%	13%	8%	5%	0%	15%
Postgraduate bachelor	7%	2%	2%	1%	5%	3%
Postgraduate diploma or certificate	3%	1%	1%	1%	0%	2%
Professional first bachelor	2%	1%	0%	1%	0%	1%
General academic bachelor	4%	1%	1%	1%	0%	2%
Undergraduate diploma	3%	0%	1%	0%	0%	1%
Other	3%	1%	0%	1%	0%	1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

More than half of the 2014 national LSSE sample had been teaching for less than ten years. Staff with teaching experience of four years or less made up 27% and those with teaching experience of between five and nine years 26% of the sample. Another 26% of staff had been teaching for 10 to 19 years. The most experienced staff with 30 or more years of teaching experience made up the smallest portion of the sample at 6%. It could be argued that these lecturers already show some sense of engagement just by completing the survey, and therefore the results should be viewed in that light. It is also noted that the response rate, at 16%, was quite low across the eight universities.

Lecturers were asked to think of an undergraduate module they had been teaching during 2014 and to indicate the amount of times they had taught this module prior to the current year. Most of the sample (30%) indicated that they had taught their selected module ten or more times before, and only 9% of the sample indicated that they had taught their module for the first time during 2014.

ANALYSING THE ENGAGEMENT RESULTS OF NEW AND EXISTING STAFF AT SOUTH AFRICAN UNIVERSITIES

How do lecturers spend their time?

Lecturers were asked to indicate how much time they spend in a typical seven-day week, specifically on teaching-related activities (Figure 4.1). The activities included: preparing class sessions, teaching undergraduate students, teaching postgraduate students, marking papers and exams, meeting with students outside of class, course administration (emailing students, maintaining course website, etc.), and working to improve their teaching (self-reflection, meeting with teaching consultants, attending teaching workshops, conducting research on their own modules/subjects, etc.).

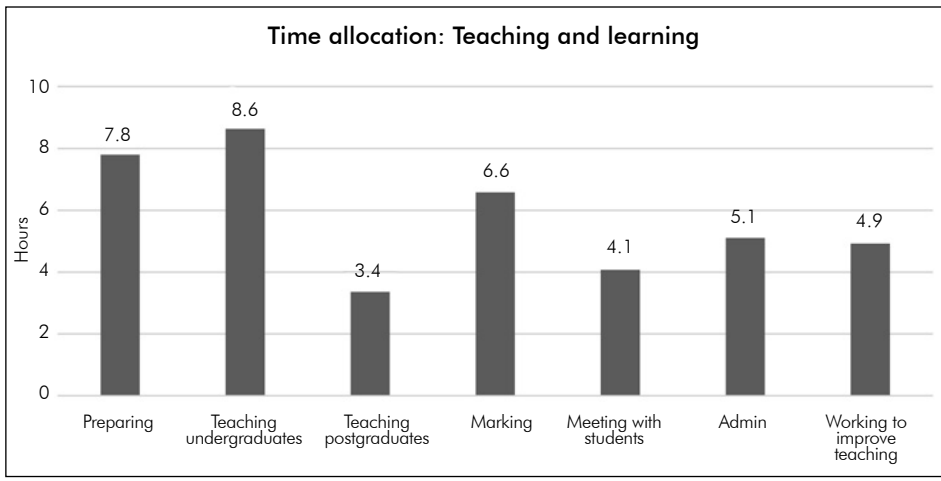

FIGURE 4.1 Hours per seven-day week spent on teaching-related activities

The largest amount of the 40.5 working hours related to teaching reported by lecturers is spent on teaching undergraduate students (8.6 hours or 21% of the time), which is consistent with expectations of staff at lecturer level. Thereafter, lecturers spend the most time preparing for their class sessions (7.8 hours or 19% of the time) and spend an average of 6.6 hours (16% of the time) marking papers and exams. Lecturers also report that they spend on average 4.9 hours (12% of the time) to improve their teaching through actions such as self-reflection, meeting with teaching consultants, attending teaching workshops, and conducting research on their own modules/subjects. Further, lecturers only put aside just over four hours per week to meet with students.

Further analysis was performed to examine the differences in the reported time spent of lecturers with different levels of teaching experience. For these purposes, the sample of lecturers were split into two categories, the first includes lecturers that have 0-4 years' teaching experience, and the second group of lecturers have five years or more experience. Figure 4.2 shows the results of the analysis.

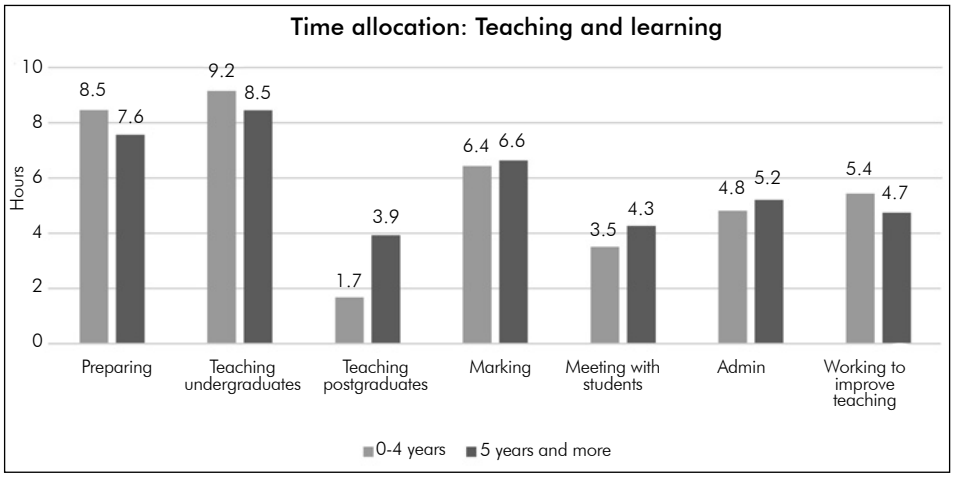

FIGURE 4.2 Hours per seven-day week spent on teaching-related activities – split by teaching experience

The chart shows that the less experienced group of lecturers report an average work week related to teaching activities of 39.5 hours, while the more experienced lecturers report a 40.8 hour week. The less experienced lecturers spend more time preparing for class sessions (8.5 hours or 21% of the time) than the more experienced lecturers (7.6 hours or 19% of the time). The more experienced lecturers spend slightly less time (8.5 hours or 21% of the time) teaching undergraduate students than the less experienced lecturers (9.2 hours or 23% of the time); however, the more experienced lecturers spend more than twice as much time (3.9 hours or 10% of the time) teaching postgraduate students than the less experienced lecturers (1.7 hours or 4% of the time). The two groups of lecturers spent similar amounts of time on marking papers and exams (6.4 hours and 6.6 hours respectively). The more experienced lecturers meet with students an average of 4.3 hours a week (or 11% of the time), compared to 3.5 hours (or 9% of the time) spent by the less experienced lecturers.

Less experienced lecturers spend 4.8 hours of the week doing course-related administration, compared to 5.2 hours a week by the more experienced lectures. It seems that the less experienced staff spend more time on work related to improving

their teaching and research, with 5.4 hours a week (or 14% of their time), compared to 4.7 hours a week (or 11% of their time) spent by the more experienced lecturers.

Minding the gap between lecturers' and students' perspectives

Research points to the vital role that educators' perceptions of their students have on the development of an equitable learning environment (Garcia & Guerra 2004). In the South African context in particular, Smit (2012) has argued that a persistent deficit thinking model among university staff towards students' proposed lack of academic and cultural resources to meet the challenges posed by higher education, impedes students' chances of success. Our findings from the LSSE, and in some respects from the SASSE, highlight a potential disconnect between lecturers' assumptions and expectations of students, and students' actual behaviours pertaining to academic and non-academic time allocation. We are mindful of the fact that using average scores across institutional types needs to be done with great care because contexts differ, however, the aim is more directed towards illustrating how staff and students are 'missing each other'. The student sample used for the SASSE results below is from the same year's administration – 2014. The SASSE data consist of nine institutions (one more than the LSSE, as universities can opt out of administering the LSSE with the SASSE). The majority of the 12 306 students from the 2014 sample were from four traditional universities, followed by three universities of technology, and two comprehensive universities. Similar to the lecturers' faculty representation, most students were enrolled at faculties within the broader categories of Science, Engineering and Technology, followed by Business, Economics and Management, then Humanities, and the least were enrolled for Education.

Regarding lecturers' expectations of students' time allocated to prepare for their identified modules, almost half (49%) of the lecturers expect their students to spend between three and six hours per week preparing for their module, while 50% of lecturers think that their students spend only one to two hours per week preparing for their module. In fact, 89% of lecturers report that they think their students spend less time preparing for class than the lecturers think is required. In addition to the negative perception of students' commitment, the results also beg the question whether lecturers have a realistic view of students' life demands. If the average lecturer expects students to spend an average of five hours per week preparing for their module, will students have enough time to prepare for all their modules, let alone all the other activities and responsibilities students need to spend time on?

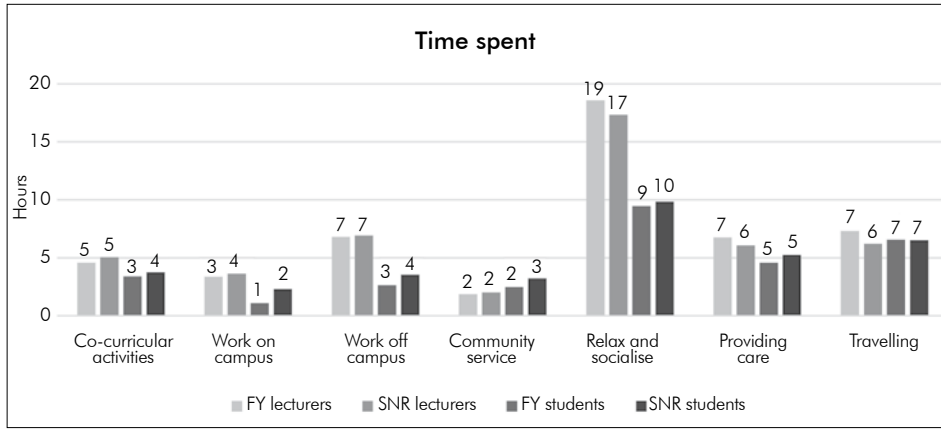

FIGURE 4.3 Comparison of lecturer estimations and student reports of time expenditure

When comparing the LSSE and SASSE results, lecturers seem to greatly overestimate the amount of time students spend relaxing and socialising (Figure 4.3). First-year lecturers think their students spend 19 hours of a seven-day week relaxing and socialising, whereas the students report spending only nine hours. Similarly, senior lecturers think their students spend an average of 17 hours a week relaxing and socialising, but the students report spending only ten hours. Lecturers seem to correctly estimate the amount of time students spend traveling to class (seven hours) and doing community service (two hours), although slightly overestimating the time needed to provide care to dependents. Lecturers also overestimate the amount of time students spend working, either on or off campus. These results appear to confirm a negative view of students' commitment to work in terms of an overestimation of relaxing and socialising, but does suggest an awareness of different demands on students' time, although these tend to be overestimated when compared to student responses. It is important to emphasise that the point of this comparison is not who is accurate, lecturers or students, but rather to focus on which conversations are needed to effect greater alignment between lecturers and students. The data question how realistic lecturers are about the preparation demands on students across all their courses.

Perspectives on student learning

Questions related to student learning in the engagement surveys are based on Bloom's taxonomy of educational learning objectives (Bloom, Engelhart, Furst, Hill & Krathwohl 1956). The framework provides classification statements of what lecturers expect of students, and what they intend for students to learn and is widely used in curriculum development and in academic staff development to support the development of outcomes and the alignment of assessment with outcomes

(Krathwohl 2002). The original goal of developing such a framework was to provide a common language across subject matters and different levels of students. Since its development, the framework has been revised and redesigned to include the following six dimensions: remember, understand, apply, analyse, evaluate, and create (Krathwohl 2002).

To show how students and lecturers differ in their experiences of cognitive development and learning, we bring in student data from the SASSE to compare with lecturers' responses. Lecturers were asked to indicate the degree to which their module drew on the cognitive functions as categorised in Bloom's taxonomy. In the SASSE, students were in turn asked to indicate how much their academic work emphasised the same elements. Table 4.3 compares the percentages of lecturers and students who responded "Quite a bit" or "Very much".

TABLE 4.3 Comparison of Bloom's taxonomy categorisation for lecturers and students

Cognitive functions	Lecturer rating		Student reporting	
	First-year lecturers	Senior lecturers	First-year students	Senior students
Memorising	58%	47%	75%	72%
Applying	87%	92%	78%	80%
Analysing	71%	77%	71%	73%
Evaluating	61%	69%	71%	71%
Creating	67%	71%	74%	74%

The results suggest that there is an alignment between the emphasis that staff place on specific categories of Bloom's taxonomy and the extent to which students experience this emphasis. First, it seems that students feel their work strongly emphasises memorisation within their subject areas (FY 75% and SNR 72%). In contrast, neither group of lecturers primarily teaching first-year students nor those teaching senior students feel that their selected modules place as much emphasis on memorising material (FY 58% and SNR 47%). This finding could also point to a misalignment between outcomes and assessments in that lecturers might state higher level outcomes in courses but these intentions are not realised in assessments, allowing students to pass through just using memorisation. A second concern with these findings relates to the lack of differentiation between first-year and senior curricula. These results suggest that lecturers do not actively emphasise Bloom's

higher-order levels and therefore it is not surprising that the experience of first-year and senior students are so similar.

Comparing lecturers with different levels of experience and their use of Bloom's taxonomy, Figure 4.4 shows that lecturers with more teaching experience generally make more use of higher-level learning outcomes beyond memorisation. Looking at the most basic level of memorising material, 64% of the less experienced lecturers reported that this is emphasised in their module, compared to 47% of the more experienced lecturers. Fairly similar levels of emphasis are reported by less experienced lecturers and more experienced lecturers for applying facts, theories or methods (87% and 91% respectively), identifying different parts of an idea (74% and 77% respectively), and evaluating a point of view, decision, or information source (65% and 68% respectively), with less experienced lecturers reporting slightly less emphasis on all three these activities. For forming a new idea or understanding, a larger proportion of the more experienced lecturers (72%) reported emphasis on this activity, compared to the less experienced lecturers (63%). A worrying interpretation points to the lack of emphasis lecturers place on having students evaluate information and forming a new idea or understanding – both of which are key elements of active learning.

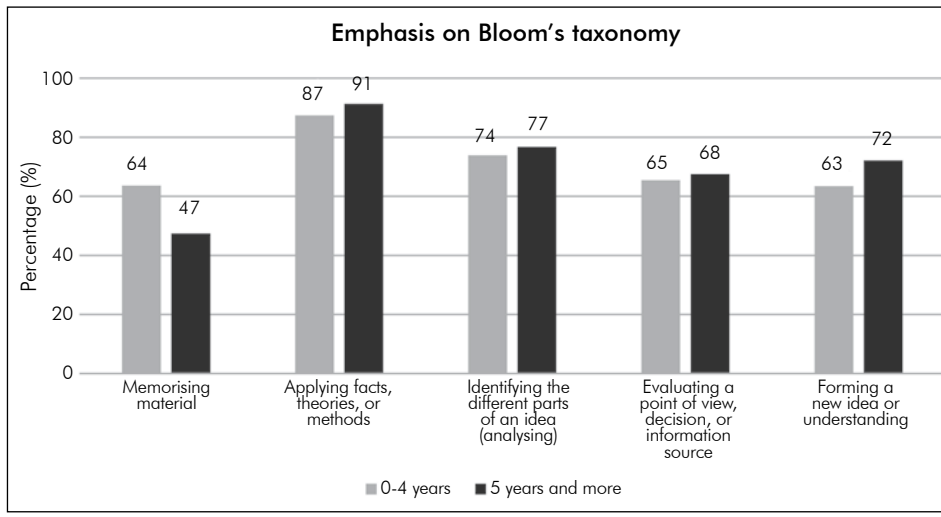

FIGURE 4.4 Emphasis on Bloom's taxonomy

It is important to highlight that lecturers are also asked to indicate how important it is to them that students do certain activities in their specific module. In the SASSE, students are asked how often they do these activities during their current year at university.

Table 4.4 shows that lecturers place great importance on students needing to connect their learning to societal problems or issues, as well as including diverse perspectives in discussions or writing assignments. However, a minority of students report that they undertake these activities.

TABLE 4.4 Item-level comparison of lecturer expectations and students' experience of activities

	FY lecturers	SNR lecturers	FY students	SNR students
Connect his or her learning to societal problems or issues	84%	78%	47%	56%
Include diverse perspectives in module/ subject discussions or writing assignments	68%	69%	42%	50%
Try to better understand someone else's views by imagining how an issue looks from his or her point of view	84%	77%	73%	71%

The LSSE asks lecturers how important they feel certain educational activities are for the students in their modules. Figure 4.5 shows these cognitive educational activities.

While some differences might be attributed to disciplinary requirements or specifications, in general, both experienced and lesser experienced lecturers recognise the importance of cognitive educational activities to enhance engagement. The most important activities were learning something that changed the way students understand an issue or concept, and connecting ideas from their modules to their prior experiences and knowledge, with nearly 90% of lecturers prioritising these. Both groups of lecturers reported that it is important that students combine ideas from different modules when completing assignments (84% and 85% respectively of the less experienced and more experienced lecturers). The same proportion of less experienced lecturers and more experienced staff reported that it is important that students examine the strengths and weaknesses of their own views on a topic or issue, namely 78%. A slightly higher percentage of less experienced lecturers (77%) reported that it is important that students try to better understand someone else's views by imagining how an issue looks from their point, compared to more experienced lecturers (72%). Both the less experienced and more experienced lecturers felt that the least important cognitive educational activity is including diverse perspectives in module discussions or writing assignments (60% and 57% respectively).

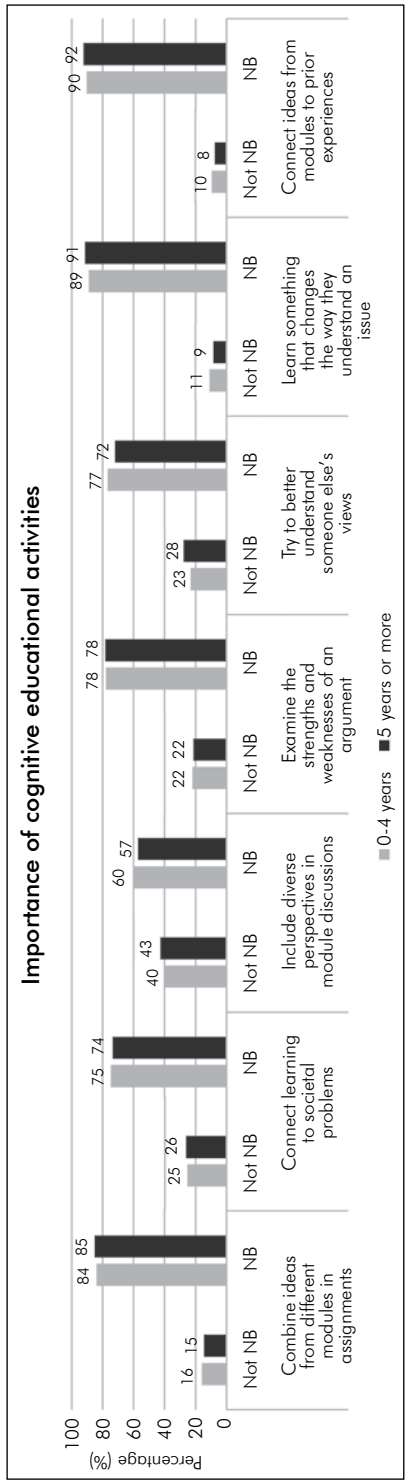

FIGURE 4.5 Importance of cognitive educational activities

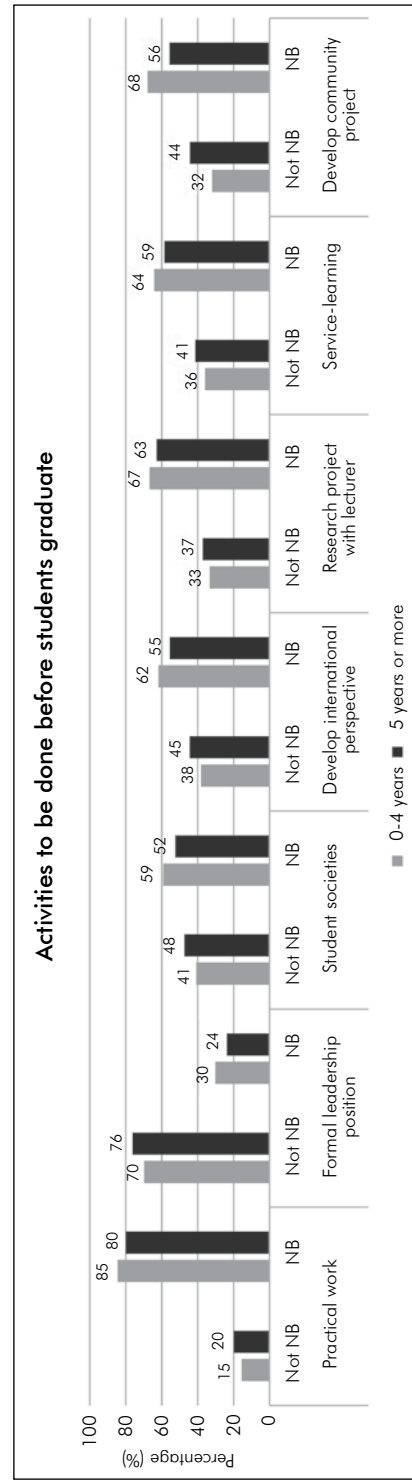

FIGURE 4.6 Important activities that undergraduates should do before graduating

Beyond the learning outcomes primarily focused on classrooms, lecturers were also asked how important they felt it is that undergraduate students do certain activities, which could impact their learning experiences outside of the classroom before they graduate. The activities included: practical work related to their studies; holding a formal leadership position in a student organisation or group on campus; participating in student societies; developing an international perspective through campus initiatives and interacting with international students; working with a lecturer on a research project; participating in a community-based project (service learning) as part of a regular course; and developing a community project which requires them to use their university knowledge to address a problem in the community. These questions were rated on a 4-point scale (1=Not important, 2=Somewhat important, 3=Important, and 4=Very important). The responses were recoded into "Not important" (option 1 and 2) and "Important" (option 3 and 4). Figure 4.6 illustrates the results.

Both the less experienced and more experienced lecturers felt that practical work is very important (85% and 80% respectively). The two lecturer groups felt that holding a formal leadership position was not important (70% and 76%). A larger proportion of less experienced lecturers (59%) felt that participating in student societies is important, compared to the more experienced lecturers (52%). Developing an international perspective is also more important to the less experienced lecturers (62%) than to the more experienced lecturers (55%). Fairly similar results are seen between the two groups for how important research with a lecturer is, with 67% of the less experienced lecturers and 63% of the more experienced lecturers rating this as important. Participating in a community-based project (service learning) is also more important to the less experienced lecturers (64%) than to the more experienced lecturers (59%). The largest difference between the two groups is seen for developing a community project, which requires students to use their university knowledge to address a problem in the community. A much larger proportion of the less experienced lecturers (68%) feel that this is important, compared to 56% of the more experienced lecturers. These results raise the question whether more experienced lecturers are less open to different and innovative ways of learning than the less experienced lecturers. Moreover, the general low enthusiasm for these co-curricular learning opportunities may also point to the ongoing process of slowly evolving institutional cultures which have not quite embraced the potential of co-curricular learning to help students develop and succeed.

EXPLORING TEACHING AND LEARNING PRACTICES

Lecturers were asked to indicate what percentage of class time is used for certain activities. Table 4.5 is a conditional formatting visualisation to highlight most-frequently to least-frequently used techniques. Darker grey areas indicate the largest portion of the sample for each activity, and lighter grey areas indicate the smallest portion of the samples.

TABLE 4.5 In-depth analysis of teaching and learning practice

Class time	Activities							
	Lecture	Discussion	Small-group activities	Student presentation	Independent student work	Movies and videos	Assessing student learning	Experiential activities
0%	0.4%	1.4%	18.2%	32.7%	30.1%	44.6%	9.3%	40.6%
1-9%	3.7%	21.0%	29.5%	31.9%	24.3%	35.3%	38.1%	18.0%
10-19%	5.7%	27.2%	19.7%	15.3%	15.6%	10.2%	23.3%	12.1%
20-29%	7.0%	22.2%	14.0%	8.1%	8.7%	5.6%	10.8%	9.2%
30-39%	10.1%	10.1%	7.9%	6.2%	6.9%	1.6%	7.5%	7.1%
40-49%	22.4%	9.8%	4.2%	1.8%	5.7%	1.6%	4.7%	5.5%
50-74%	37.3%	6.8%	4.1%	2.5%	5.2%	0.7%	4.2%	5.7%
75% or more	13.3%	1.5%	2.4%	1.5%	3.4%	0.4%	2.2%	1.8%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

It seems that most class time is spent on lecturing (50-74%), followed by discussions (10-19%) and assessing student learning (1-9%). Most lecturers reported that they spend no or very little class time on independent student work, movies and videos and experiential activities.

When splitting the sample into two groups based on years of experience, less than four years (Table 4.6) and five years or more (Table 4.7), not much difference emerges. The two groups both spend most of their time on lecturing (50-74%), followed by discussions (10-19%). However, the less experienced lecturers spend more time incorporating movies, videos, music or other performances than the more experienced lecturers. Furthermore, it appears that a larger proportion of the more experienced lecturers spend of their time assessing student learning than the less experienced lecturers.

TABLE 4.6 Teaching and learning practice – lecturers with less than four years' experience

Class time	Less experienced lecturers – Activities							
	Lecture	Discussion	Small-group activities	Student presentations	Independent student work	Movies and videos	Assessing student learning	Experiential activities
0%	1.2%	1.2%	21.5%	35.4%	34.7%	35.7%	9.4%	44.1%
1-9%	3.2%	21.7%	31.4%	30.1%	20.2%	38.5%	32.2%	18.2%
10-19%	6.0%	25.0%	16.5%	13.4%	13.6%	13.1%	23.7%	13.0%
20-29%	6.0%	22.5%	13.2%	8.1%	9.5%	7.8%	13.5%	7.3%
30-39%	9.6%	9.0%	7.9%	5.7%	5.8%	1.6%	7.8%	7.3%
40-49%	18.5%	11.5%	4.1%	2.0%	5.4%	0.8%	5.3%	5.3%
50-74%	38.6%	6.6%	3.3%	3.3%	5.4%	1.2%	3.7%	2.4%
75% or more	16.9%	2.5%	2.1%	2.0%	5.4%	1.2%	4.5%	2.4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

TABLE 4.7 Teaching and learning practice – lecturers with more than five years' experience

Class time	More experienced lecturers - Activities							
	Lecture	Discussion	Small-group activities	Student presentations	Independent student work	Movies and videos	Assessing student learning	Experiential activities
0%	0.1%	1.4%	17.1%	31.8%	28.6%	47.6%	9.3%	39.4%
1-9%	3.8%	20.8%	28.9%	32.5%	25.7%	34.2%	40.1%	18.0%
10-19%	5.6%	27.9%	20.7%	16.0%	16.3%	9.2%	23.1%	11.8%
20-29%	7.4%	22.1%	14.2%	8.1%	8.4%	4.9%	9.8%	9.8%
30-39%	10.3%	10.5%	7.9%	6.4%	7.3%	1.5%	7.4%	7.0%
40-49%	23.8%	9.3%	4.2%	1.7%	5.8%	1.8%	4.5%	5.6%
50-74%	36.9%	6.9%	4.4%	2.3%	5.2%	0.6%	4.3%	6.9%
75% or more	12.0%	1.1%	2.5%	1.3%	2.7%	0.1%	1.4%	1.5%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

DISCUSSION: IMPLICATIONS FOR ACADEMIC STAFF DEVELOPMENT WITHIN TEACHING AND LEARNING

The data presented in this chapter raise several questions, and based on literature, some recommendations for academic staff development and working towards quality teaching and learning outcomes are proposed. These include:

1. We know from student engagement literature that the relationship between lecturer and student is very important to enhance engagement and therefore impact learning and success. Further, as mentioned earlier, lecturers can play a vital role as role models, mentors and guides (Kuh *et al* 2010). The data, however, show us that lecturers only spend three to four hours per week meeting with students. In other words, maybe an hour per day from Monday to Thursday is set aside to meet with tens or even hundreds of students. While it is unfair to expect lecturers to be at the beck and call of students, serious discussions need to take place amongst lecturers, students and lecturer support staff to figure out ways of enhancing quality contact sessions between lecturers and students.
2. The LSSE data show respondents spend around 40 hours a week on teaching and learning activities. This suggests that academic staff development initiatives will need to help staff manage their time through planning different parts of research projects at different times of the year. The data show that experienced teachers tend to value Bloom's higher-level assessments more than less experienced staff, which might be the result of younger academics primarily teaching first-years. However, this still points to the need for staff development interventions that show young staff how to assess the higher levels of the taxonomy. Interestingly, more experienced staff appear to be less open to using innovative learning approaches, such as research projects, service learning, and using co-curricular spaces such as student societies. These results suggest that innovative approaches will need to be found for more experienced academics to help them see the value of these approaches.
3. Lecturers indicate that they spend almost five hours per week on working to improve their teaching through actions such as self-reflection, meeting with teaching consultants, attending teaching workshops, and conducting research on their own courses, yet they still primarily make use of traditional lecturing, with very little incorporation of alternative ways of teaching. The data show that less experienced lecturers employ more of the alternative techniques and spend more time on working to enhance their teaching. These findings suggest that there might need to be an evaluation of how effective teaching and learning

development initiatives are at getting academics to reflect and change their teaching and learning approaches.

4. Lecturers and students miss each other through expectations and actual behaviours. For example, almost 90% of lecturers completing the LSSE think their students do not spend as much time preparing for their lectures as is expected of them. Lecturers greatly overestimate the time students spend relaxing and socialising. Having high expectations of students is a key part of effective educational practices (Kuh 2007); however, these expectations need to be realistic. Having such data indicating where the gaps are between lecturers and students could prove invaluable for both parties to understand the point of view of the other.

5. Regarding student learning outcomes or graduate attributes, the data show that lecturers find it important that students can apply the knowledge they gain; that they can connect knowledge to societal problems; that they are able to see others' points of view; and that they will be able to evaluate, analyse, and personally relate to knowledge. That said, students seem to rely heavily on memorisation, and do not seem to be aware of much intentional focus to help them develop these skills. Adding to this gap is that most of teaching and learning time is spent on passively 'transferring' knowledge through traditional lectures. The problems here seem to be based on a lack of transferring intentions to practice; a lack of clear-cut educational outcomes known by all parties; and little evidence of efforts to incorporate different types of teaching and learning as well as assessment practices.

6. In general, lecturers' encouragement for students to take part in co-curricular learning opportunities is relatively low. This could be because these high-impact practices (see Chapter 5) are not normalised in institutions yet and thus people might not be aware of the potential benefits of these practices; or it might point to conservative views about where learning should take place. Either way, institutional cultures are often rigid and difficult to change. For large-scale co-curricular practices focused on enhancing student learning and development to be successful, lecturers' support and encouragement are important.

What lecturers want their students to learn requires active, collaborative learning. The use of learning management systems, the use of technology in classes, incorporating action research, making use of experiential learning and introducing alternative methods of assessment, and such like, are all important resources which could be used in response to the data.

As we have seen, student engagement data provide an important birds-eye view on what is going on within teaching and learning contexts. The LSSE offers a glimpse of lecturers' time prioritisation, their beliefs about what and how students should learn, and how they put these into practice. Combining student responses from the SASSE with the LSSE enriches the data through providing an alternative view of how students spend their time, as well as their perceptions of how and what they are learning. The value of this combination is clear when we see how the experiences differ between students and lecturers.

The results could be used as a warrant for the national staff recruitment and development projects mentioned earlier, especially in terms of informing the training and development of new staff in teaching and learning. Providing well-designed and effective teaching development opportunities at the beginning of academic careers should make a real difference both to the quality of teaching and learning, and to the confidence and effectiveness of new young staff members as they develop positive identities as academics. As has been recognised in the chapter, teaching is only one of the core components of the academic job, but has been the one that has arguably been the least systematically addressed and incentivised.

For existing staff, the results also hold considerable value, as they do both a reality check on often unquestioned assumptions, and offer important insights into student experiences and insights. Drawing from an inter-institutional project to improve student engagement through academic staff development, Malnarich summarises common academic staff development practices emerging from the project from which we could learn:

1. *Pedagogical practices are introduced in relation to research on how people learn*. Lecturers need to be encouraged to take the same scholarly approach to teaching and learning as they do in their own research fields.
2. *Existing good work is valued and made public*. This can take form in institutional discussions or learning communities or through rewarding good practice, as well as more formal ways of sharing, for example, through SoTL publications.
3. *Student retention is addressed by focusing on the quality of students' learning experiences*. This suggests that integrative teaching and learning practices, as well as curricula which develop students holistically, need to be designed and implemented.
4. *What students are learning is examined in relation to expected learning outcomes*. Achieving alignment in this regard requires using available data, such as different

forms of engagement data, to serve as catalysts for examined reflection and conversations about teaching effectiveness.

5. *Hard-to-solve dilemmas based on lecturers' experiences of teaching are addressed.* This finding suggests that organised sessions focusing on challenges lecturers face regarding student learning would provide a useful network of support.
6. *Work is assessed in relation to data and plans are revised.* Relying on data should extend beyond the initial snapshot and should be used as a continuous method of evaluating progress (Malnarich 2008:4).

It is important to note that the presentation of the data is not intended to trivialise or criticise the vital role lecturers currently play in helping students succeed – often with minimal support, tremendous tension between research and teaching workloads, and having to deal with the complexities of being mediators between students and institutions. It is exactly for these reasons that we believe stronger support systems need to be in place to help lecturers cope with the demands placed on them, as well as to optimally help students succeed.

CONCLUDING THOUGHTS

This chapter set out to explore how an evidence-based understanding of how lecturers think about and practice teaching and learning could impact staff development initiatives. On a national level, we see recognition for staff development and transformation initiatives in the form of strategic planning and funding allocation as illustrated in the University Capacity Development Grant. Through this chapter's data contribution, we also see how important staff development initiatives need to go beyond merely focusing on equitable employment and encouraging improvement of academic qualifications amongst staff.

The snapshot of what is happening in teaching and learning spaces provided by student engagement data offers a vital space for reflection, discussions, and SoTL initiatives; as well as developmental interventions. If effective teaching and education development support are heralded as the core business of an institution, significantly more effort needs to be focused on helping lecturers transfer their good intentions about what and how their students learn into practice.

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5 DEVELOPING SOUTH AFRICAN HIGH-IMPACT PRACTICES

Sonja Loots, Jillian Kinzie & Annél Oosthuysen

An old story does not open the ear as a new one does – Beninese proverb

INTRODUCTION

The need for all postsecondary students to develop capacities, including broad knowledge, intellectual and practical skills, and personal responsibility to thrive in the 21st century – and to develop these skills through involvement in high-quality learning experience in colleges and universities – has never been greater. The widespread focus in the United States on college completion through high-quality learning is central to both individual and societal success. A similar pattern is seen in South African higher education, where the national post-democratic focus of widening access to postsecondary education has expanded to include a strong emphasis on student success, particularly developing the skills necessary for economic growth, and fostering individual and social well-being.

Fortunately, mounting evidence shows that particular educational practices are positively associated with the development of these skills and are correlated with important educational outcomes including transformative and deep learning and student success. Increasing opportunities for students to be involved in educational practices that make a significant impact on learning and success – dubbed "high-impact" because they result in desirable outcomes – are vital to help students get the most out of higher education.

This chapter aims to unpack the conceptualisation and impact of high-impact practices (HIPs) implemented in the United States and explore the potential of developing and measuring HIPs to contribute to the development and success of students in the South African context. It should be noted that conversations around

HIPs in the South African context are still relatively new. The chapter therefore aims to contribute to these emerging conversations through providing a systemic view of the prevalence of HIPs as measured through the South African Survey of Student Engagement (SASSE).

WHAT ARE HIGH-IMPACT PRACTICES AND WHAT DO THEY OFFER?

The concept of student engagement does not only result from student effort, but simultaneously depends on whether the environment promotes academic and other areas of development. Practices with a high impact on student learning experiences and student engagement in general are not new concepts, however, the strength of the student engagement approach lies in the intentionality or purposefulness of aligning institutional strategies and practices to optimise the educational environment for student learning and development.

The educational significance of ten promising high-impact practices, including first-year seminars and experiences; common intellectual experiences; learning communities; writing-intensive courses; collaborative assignments and projects; service learning; undergraduate research; study abroad and other experiences with diversity; internships; and capstone courses and projects, was first identified in the 2007 ground-breaking report, *College Learning for the New Global Century*, published by the Association of American Colleges and Universities (AAC&U). Many of these practices have enjoyed a long history in American higher education. First-year seminars, for example, are over 100 years old (University of South Carolina n.d.), yet recently, as evidence of their benefit to students from many backgrounds mounted, so did the advocacy for expanding their implementation. Arguing that involvement in quality learning experiences in higher education, not simply the receipt of a degree, makes a difference in terms of desirable outcomes, there was a strong call for more widespread investment in increasing students' exposure to HIPs.

In the decade since HIPs were declared demonstrably effective for fostering student success, there has been a surge of research on their effects and significant achievements in discerning what makes them effective and for which students (Finley & McNair 2013; Kuh 2008; Kuh & O'Donnell 2013). The official classification of a set of HIPs that make substantial contributions to student success was advanced by research conducted by the United States-based National Survey of Student Engagement (NSSE), which confirmed the strong positive effects associated with participation in six of the ten high-impact practices (NSSE 2007; Kuh 2008). HIP participation had a positive effect on students' self-reported gains in learning and personal development outcomes, engaging in integrative approaches to learning,

and overall student engagement in effective educational practices. Notably, NSSE research demonstrated a compelling salutary benefit for students in groups that have been historically underrepresented in United States higher education – selected racial-ethnic populations and students with lower entering test scores. Brownell and Swaner (2010) further affirmed the value of five HIPs through their extensive review of published research on first-year seminars, learning communities, service learning, undergraduate research, and capstone courses and projects. Their report documented the deep research base demonstrating strong relationships between these HIPs and selected dimensions of student success, persistence, and changes in attitudes and behaviours. These studies helped establish HIPs as practices worth investing in for advancing student success.

According to the Center for Community College Student Engagement (CCCSE) at the University of Texas, research has also expanded to identify and study a wide range of HIPs in community colleges, including a dozen practices, such as orientation, accelerated developmental education courses, and tutoring, that fall into three broad phases of students' education, namely, planning for success, initiating success and sustaining success (CCCSE 2012). In general, studies have also found positive relationships between HIP participation and Grade Point Average scores (Huber 2010) and developing a sense of citizenship (Kinzie 2012). Moreover, the gains in learning and personal development students report from their participation in HIPs relate to 'deep approaches' to learning, which, as opposed to surface-level learning, encompass a deeper understanding of the meaning attached to learning beyond mere memorisation of facts (Kuh 2008). Most importantly, is the persuasive evidence presented by Finley and McNair (2013) that students value what they experience in HIPs – real-world application for learning and caring relationships with faculty, staff and peers about substantive matters.

It is this growing body of evidence on the developmental potential of HIPs which urges us to identify, implement, and measure the impact of HIPs in the South African context.

DEVELOPING AND MEASURING SOUTH AFRICAN HIGH-IMPACT PRACTICES TO ENHANCE UNDERGRADUATE STUDENT ENGAGEMENT

The University of the Free State's Centre for Teaching and Learning student engagement research team foregrounded the development of context-specific HIPs in the 2013 adapted version of the SASSE. At the time, the NSSE measured participation in six HIPs, four of which were also considered valuable scaled interventions in South Africa. These four HIPs were included in the 2014 administration of the SASSE: participation in practical work; in student societies; in service learning; and doing

research with staff. At the SASSE users' workshops in 2015, discussions with the 12 participating universities about HIPs revealed that most institutions felt that additional contextualised HIPs needed to be identified. Together with an extensive literature search, the SASSE project team consolidated these suggestions into a list of 11 HIPs, which were included in the 2015 administration of the SASSE.

Because SASSE administration follows a three-year cycle, most participating universities do not administer the surveys on an annual basis. Therefore, the 2015 administration of the SASSE survey only included three higher education institutions, making it a good platform to pilot the proposed HIPs. The sample consisted of 2 590 undergraduate students.

The paragraphs that follow address each of the HIPs included in the survey along with literature supporting its inclusion, and present results (split between race and/or generational status as proxies for historical/current underserved students) on students' participation. The responses are shown as percentages and only include whether students indicated that they are planning to participate in these practices, or whether they have participated or are in progress of participating in these practices. Since the development of these programmes/interventions are in different stages and are considered differently in terms of importance, some of the proposed HIPs have been more researched than others.

Participate in practical work related to studies (internship, work related learning, clinical placement, field experience, etc.) as a compulsory part of the degree

Practical work related to study areas, such as internships, provide a valuable link between propositional knowledge and experiential knowledge, in other words, applying what has been learnt. Furthermore, gaining experience in the 'real world' promotes the development of generic and technical work-related skills valued by potential employers. A study on identifying graduate attributes from an employer's point of view, commissioned by Higher Education South Africa and the South African Qualifications Association, found that "there is a real need to address gaps between employer expectations and higher education outcomes; this has largely to do with proactive *task-directed engagement* and the *application of knowledge*, i.e. the issue of knowledge-in-use" (Griessel & Parker 2009:20, italics added). Other studies supporting the need for practical knowledge include that of Meintjes and Niemann-Struweg (2011), who found that postgraduate students who took part in internships report increased professional development; expansion of knowledge and skills; greater interest in academic work; and relating theory to practice. Govender and

Taylor (2015), in developing a work-integrated learning partnership model within a human resources management programme, also report that all three role players (industry, academics and students) found such a partnership model beneficial for bridging theory and practice and developing skills valued in the workplace.

Figure 5.1 shows participation in practical work by race[1] and generational status. Both racial groups shown as well as both groups representing generational status seem to recognise the importance of internships through their high indications of planning to participate in internships. However, white students seem to dominate actual participation in internships, and even their level of participation in this practice is less than 50%. Considering the importance placed on graduates developing practical work-related skills, as outlined above, the relationship between universities, students and the private sector needs to be strengthened to include more opportunities for students to develop these skills.

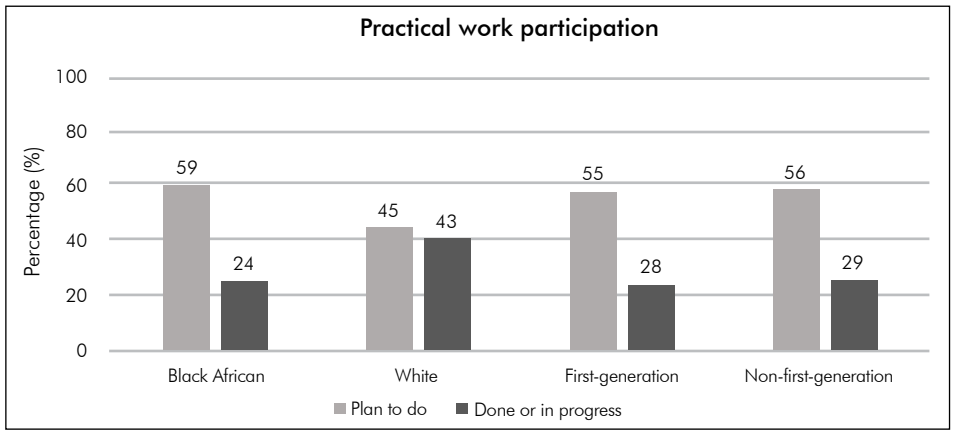

FIGURE 5.1 Participation in practical work related to studies by race and generation status

Participate in first-year experience seminars, including orientation and student learning groups

First-year seminars and experiences usually take the form of structured or co-curricular programmes that bring small groups of new students together with staff

1 Since racial category options for "Indian", "coloured", "mixed race", "other", and "prefer not to answer" were very small, these groups were excluded from the comparisons. Race is included as a proxy for historically underserved students, who have been found to benefit more from participation in HIPs in the United States context and is still relevant considering the persistent achievement gap in South Africa hovering at 8% between black African and white students (DHET 2017).

on a regular basis to help students transition to higher education and to engage in academic matters. The highest-quality first-year experiences and seminars emphasise critical inquiry, frequent writing, collaborative learning, and other skills that develop students' intellectual and practical competencies, and can invite students to engage with cutting-edge questions in scholarship and with staff members' own research. Other first-year experiences can simply include an extended orientation to the university supplemented by a course focused on introducing strategies for student success. Recognising the necessity to provide transitional and developmental support for first-year students, several scaled interventions have been put in place at different South African universities, such as curricular and/or co-curricular programmes, generic modules, or overarching First-Year Experience (FYE) programmes. The government-funded South African National Resource Centre (SANRC) for the First Year Experience and Students in Transition was established in 2014 and hosts an annual FYE conference.

From first-year 2015 SASSE data (N=710), Figure 5.2 shows the levels of participation in FYEs between first-generation and non-first-generation students. Depending on the format of FYEs, these programmes or practices could play a significant role in helping students transition into higher education, particularly those who lack a sense of learning from others what to expect before accessing these institutions. While most students indicated that they are taking part in some form of FYE, this makes up less than half of first-year students. A worrying finding is the disinterest from non-first-generation students to participate in FYEs; however, it should also be noted that not all institutional programmes focusing on first-year support, development, transition, or success are marketed as a designated FYE. Even though there are descriptions accompanying SASSE questions, the lack of consensus in framing these interventions under an umbrella term might impact on how they understand the concept.

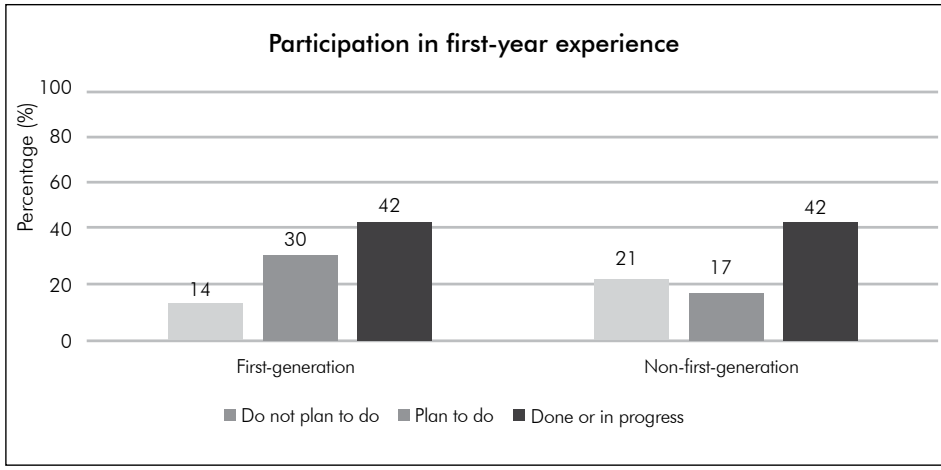

FIGURE 5.2 Participation of first-year students in first-year experience by generation status

Register for an academic literacy or language development course

The National Benchmark Tests (NBTs) were implemented in 2005. The tests were a result of a need to assess the linguistic and numeric literacy of learners completing high school. A recent report on almost 80 000 students taking these tests indicates that only 29% showed a level of academic literacy proficiency (scoring 64% and above) not requiring additional interventions or support (National Benchmark Test Project [NBTP] 2015). While academic literacy has been included as a stand-alone subject for struggling students as part of academic development, several authors have argued for the merging of academic literacy within faculties to promote deeper disciplinary content knowledge (e.g. Drennan 2015; Mgqwashu & Bengesai 2015; Naude & Bezuidenhout 2013). Registering for an academic literacy course is either compulsory for some, or may be considered irrelevant for those who do well in the NBTs. However, because of the need to develop academic literacy, this is considered a potential high-impact practice that deserves attention.

Figure 5.3 shows students' participation in literacy development courses. On average, only about 20% of the sample (irrespective of race or generational status) have participated in a literacy development course, while significantly less white and non-first-generation students indicate that they plan to enrol for such a course. Interestingly, also approximately 20% of students indicate that they have not decided whether they will enrol for a literacy development course. Considering the NBT numbers discussed earlier, these results raise questions about the preparedness of institutions to support and guide students adequately in promoting literacy development.

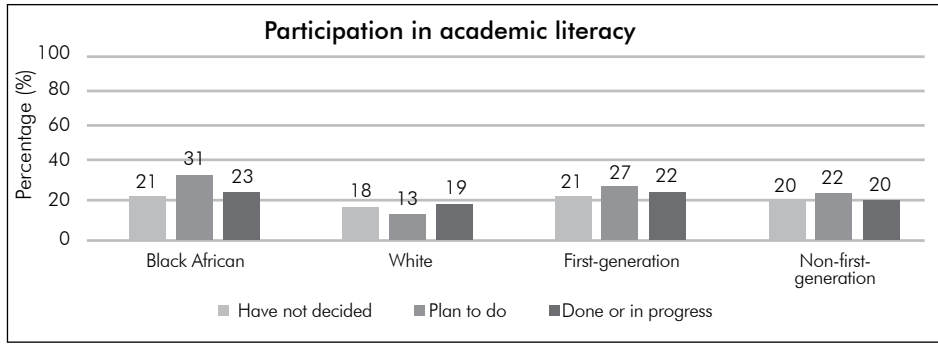

FIGURE 5.3 Participation in academic literacy or language development course by race and generation status

Work with other students on a group project or assignment

Levin (2005) contends that group work provides an educational learning opportunity for students as they are involved in the assessment and processing of alien values and ideas and react to unfamiliar knowledge territories. The value of interactive learning is also being recognised in South Africa. For example, McGhie and Du Preez (2015:177) argue that "peer interaction and cooperative learning not only strengthen the integration of students into the university environment, but they also improve their academic performance". However, Monson and Redpath (2012) suggest that the potential of small group work to advance course objectives as well as contributing to navigate and appreciate diversity amongst students is still undervalued in South African higher education. They found that out of 71 third-year students, the most reported emotion associated with group work was frustration (42%), followed by enjoyment and excitement (34%), and camaraderie (32%). Questioning students about their experiences of group work, Thondhlana and Belluigi (2014) stress the importance of considerations such as intercultural learning and communication; 'buying in', motivation and attitudes of students; and having a common understanding between lecturers and students about the process and outcomes. In a similar exploration of student experiences with group work, Van Rheede van Oudtshoorn and Hay (2004) found that students associated group work with more active participation in class, and stress that the success of such modes of learning are dependent on commitment of individual group members paired with the lecturer's effort to create a nurturing learning environment that supports creativity and challenges students to take ownership of their learning.

Figure 5.4 shows students' participation in group work by generational status. While the clear majority of all students indicate that they have participated in group work, non-

first-generation students show more participation. The importance of collaborative and peer learning is well documented in and beyond this book, particularly for the potential academic support such interactions with peers might bring.

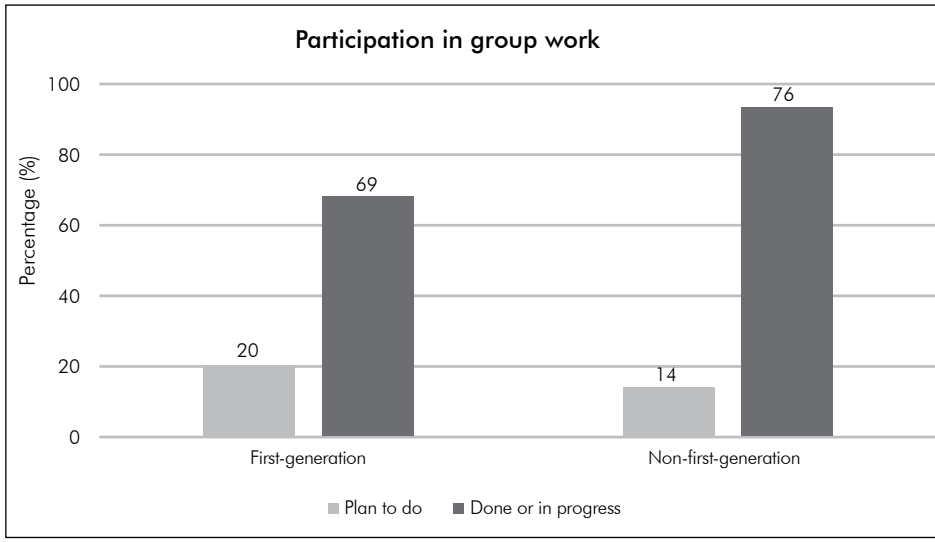

FIGURE 5.4 Participation in group work by generation status

Consult with an academic advisor to help with planning of studies and education

In recent years, academic advising has been recognised as an essential, yet underdeveloped tool to promote student persistence, development, support and success. Although very few literature contributions have resulted from this recognition, the growing interest to develop academic advising should result in valuable academic insights in the near future.

Figure 5.5 shows students' participation in academic advising according to their indicated race and generational status. Black African students indicate higher planned and actual participation in academic advising than white students. Similarly, first-generation students indicate a higher score on planning to participate in academic advising, compared to non-first-generation students. However, non-first-generation students indicate a higher score in actual participation in academic advising than their counterparts. In general, barely more than a third (37%) of the 2015 sample participated in academic advising.

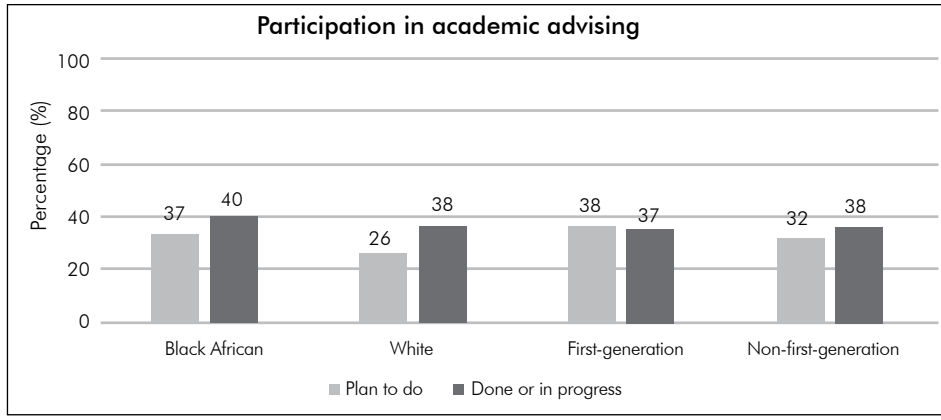

FIGURE 5.5 Participation in academic advising by race and generation status

Make use of peer learning support (e.g. tutors, mentors, facilitators)

The importance of peer learning support is evidenced through interventions responding to students' low success rates. Naude and Bezuidenhout (2013) describe how pedagogical responsiveness in the form of facilitation scaffolding techniques significantly improved the marks of students enrolled in an extended curriculum, while even surpassing the average performance of students enrolled in a mainstream sociology module. Other authors, such as Davids (2014) and Layton (2015), have also argued that peer learning support should be at the forefront of experimenting with new pedagogical practices, which are more aligned with changing student populations. An example of such innovation is shared by Underhill and McDonald (2010), who developed a collaborative tutor development model through merging disciplinary and facilitation training in order to contribute to the transformative potential of tutorials.

Figure 5.6 shows students' participation in peer learning support by race and generational status. Black African students show higher levels of participation as well as much higher levels of planning to participate than white students. In contrast, non-first-generation students show higher levels of participation, but first-generation students show higher levels of planning to participate in peer learning. In general, over 60% of the sample participated in peer learning support.

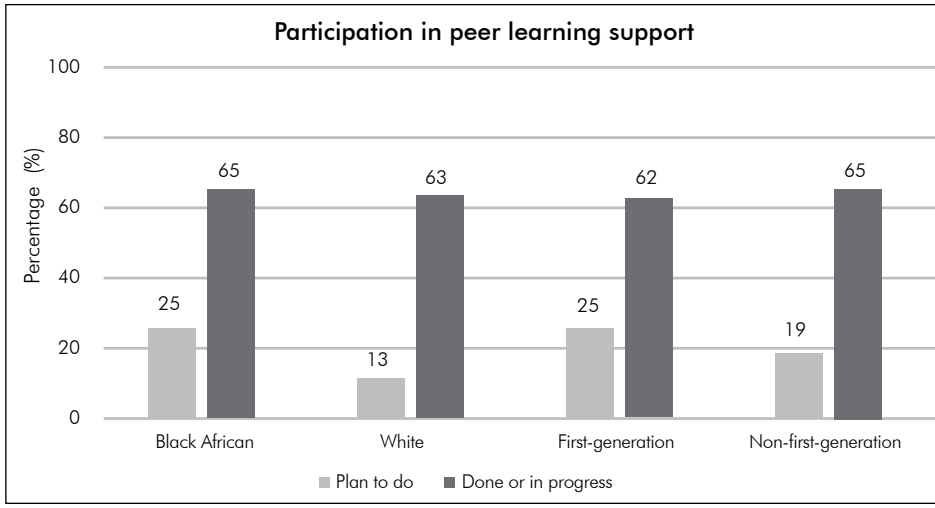

FIGURE 5.6 Participation in peer learning support by race and generation status

Explain module/subject material to other students as a tutor or learning facilitator

Although literature on the benefits of tutorials in South African higher education institutions is growing steadily, very little is written about the benefits these programmes hold for those who do the tutoring. One such study examined the necessity of tutorials, particularly to impact the development of those entering university with disadvantages. Through training senior students to tutor struggling first-year students, the authors found that "the benefit was reciprocal as evident from the doubling of the number of distinctions in the second-year class from 1999 (although subsequent student groups have exhibited a similar phenomenon)" (Page, Loots & Du Toit 2005:12).

Figure 5.7 shows the racial and generational status breakdown of students' participation in acting as peer tutors or learning facilitators. Black African students as well as first-generation students show a much higher intention to act as learning facilitators/tutors and act in these roles more than white and non-first-generation students respectively.

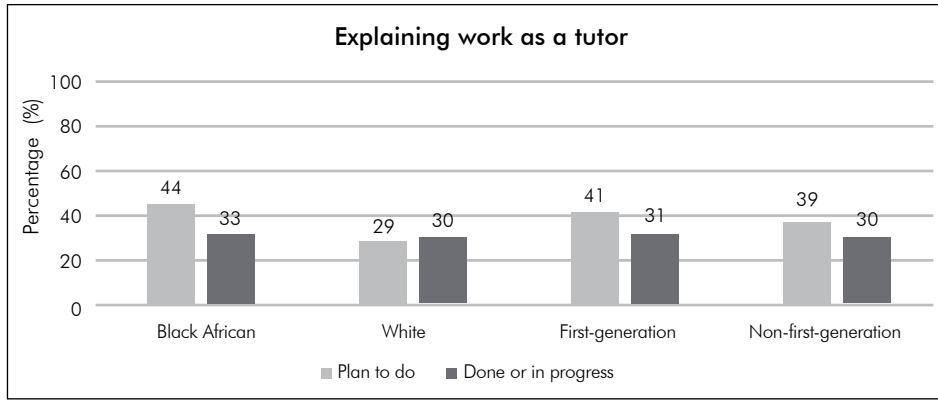

FIGURE 5.7 Explaining work as a tutor by race and generation status

Register for a mathematics or numeracy development course

According to the World Economic Forum's Global Competitiveness Report, South Africa ranks lowest out of 120 countries when comparing the quality of school-level maths and science education (Schwab 2015). Moreover, the NBT for Quantitative Reasoning shows that 72% of the test-taking population either need to enter an extended degree programme, or would need extensive and long-term support. A similar trend is seen with the NBT Mathematics test, of which the content is formally regarded as part of the secondary school mathematics curriculum. Only 11% of test takers showed a score proficient for mainstream higher education studies without additional support, while 16% would be likely to need additional support, and 73% are recommended to either attend extended programmes or receive intensive and longitudinal support (NBTP 2015).

Figure 5.8 shows students' participation in mathematics/numeracy development courses by race and generational status respectively. In general, only approximately 20% of this sample were in the process of, or had completed a course in mathematical or numeracy development. Most white students in the sample were not planning to do such a course, whereas nearly a third of black African students also indicated this. Similarly, almost half of non-first-generation students and more than a third of first-generation students indicated that they are not planning to pursue mathematic/numeracy development courses. When breaking down the results between faculties, it is not surprising that 41% of those studying in the Humanities and Social Sciences do not plan to pursue a course in mathematics/numeracy, while the two faculties most represented amongst those who are busy with such courses stem from the Science, Engineering and Technology (32%) and the Business, Economics and Management (27%) Faculties.

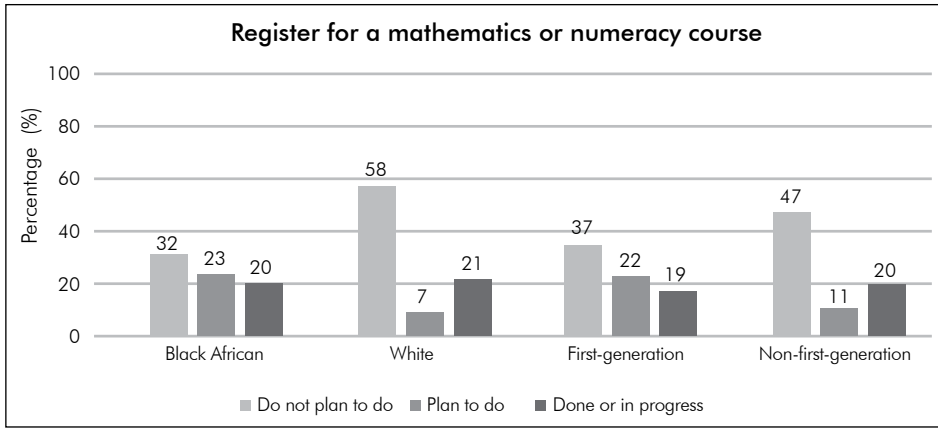

FIGURE 5.8 Registered for mathematics/numeracy development by race and generation status

Take part in service learning modules

Studies identifying the developmental outcomes associated with service learning have found gains in personal development; interpersonal skills; learning to work with others in a group as well as independently; professional growth; increased gratitude; developing research skills; applying theoretical knowledge; developing critical thinking and reflection skills; innovation and creativity; problem-solving skills; gaining a sense of citizenship and social consciousness; and have found that developing, learning and understanding are facilitated through dialogue and collective reflection (Gaines-Hanks & Grayman 2009; Myburgh 2016; Naude 2011; Pitso 2016; Stears 2009). There has also been a considerable increase in theoretical contributions of engagement between higher education institutions and communities in recent years, thereby recognising the important role service learning and the broader concept of community engagement plays in reciprocal development (e.g. Bringle & Hatcher 2005; Erasmus & Albertyn 2014; O'Brian 2005; Osman & Castle 2006). Recently, Myburgh (2016) and Pitso (2016) foregrounded the alignment of service learning curricula, and specifically its potential as a pedagogical practice, with preferred graduate attributes and employability skills favoured by a developing economy. The potential of service learning to develop students according to national prioritisation of higher education's role in societal and economic development is clear (e.g. Department of Higher Education and Training [DHET] 2013).

Figure 5.9 shows the prevalence of service learning modules in students' courses by generational status. From the data, we see that first-generation students report more engagement with service learning projects within their modules than non-first-

generation students. In general, students report that more than half of their modules have some form of a service learning component.

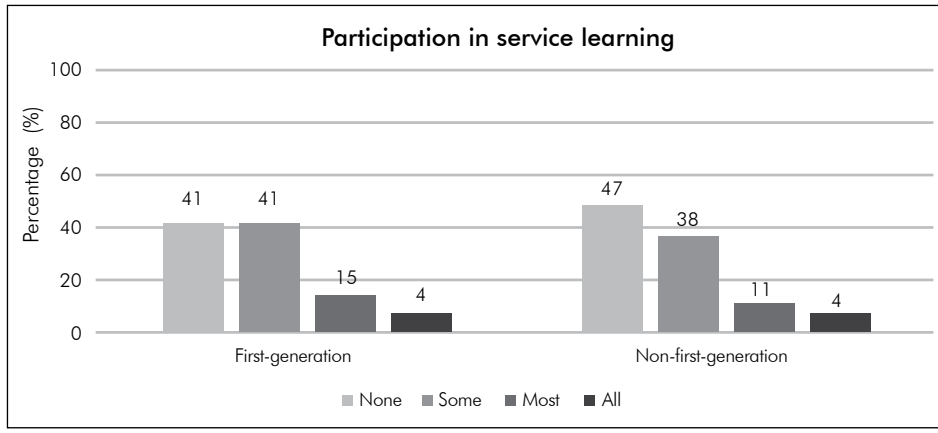

FIGURE 5.9 Participation in service learning by generational status

Participate in student societies where students engage in topics related to their modules/subjects

While some literature exists on the potential and successful implementation of different interpretations of learning communities (e.g. Harding & Engelbrecht 2015; Naude & Bezuidenhout 2015; Wilkinson 2014), very little, if any information regarding the impact of student-led disciplinary associations or learning groups is available. To participate in academic student societies relates closely to collaborative peer learning and doing group work, which have been positively associated with student development as indicated previously. It stands to reason that such societies could also provide significant social and academic support.

Figure 5.10 shows the students' responses on participation in student societies by race and generation status. Racially, there is a large difference between black African students' intention to participate and actual participation in student societies when compared to white students who shows much higher disinterest in participation. While there is only a very slight difference in actual participation between non-first and first-generation students, the latter indicate a much higher intent to participate in such societies.

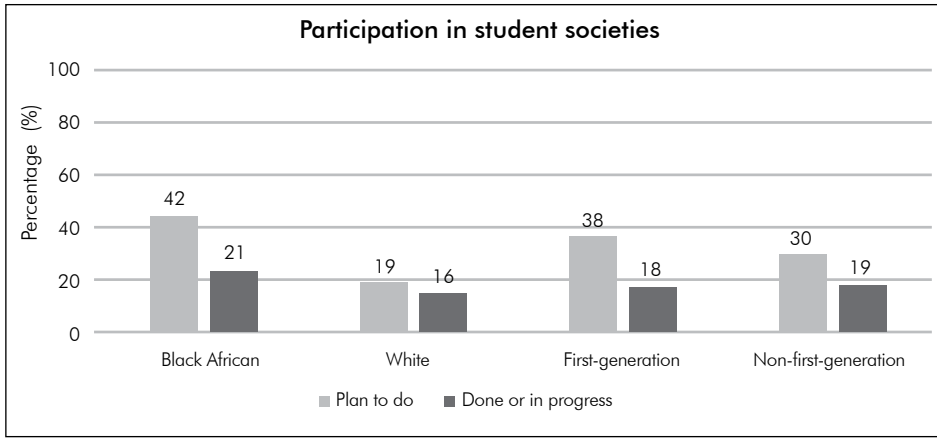

FIGURE 5.10 Participation in student societies by race and generation status

Work with a lecturer on a research project as part of a module/subject, or as part of degree course

There is a growing body of literature, particularly related to (participatory) action research projects, showing the significant transformative and developmental potential such projects could have for students. For example, Wilson-Strydom *et al* (2016) embarked on a three-year study with a group of 40 disadvantaged students to generate an in-depth account of students' experiences within higher education as well as what helps them succeed and which challenges are just too much to bear. One tangible outcome of the study is a co-authored book between the researcher and all the students, where students could share their reflections on the project and their experiences. One student captures what this project meant:

> It allows me to understand the broad context of research and group work and interaction between the two. It also enhances my skills and development … by exposing me to different topics and dismantling my stereotyped thoughts of being a law student who concerns himself with only the law (Wilson-Strydom *et al* 2016:67).

Prioritising relationships between lecturers and students in this way has the potential to benefit students' research and work skills development, as well as engaging in a more personal mentor-mentee relationship with lecturers. For these reasons, the SASSE includes working with a lecturer as a potential HIP.

Figure 5.11 shows students' participation in projects with lecturers split into analyses of race and generational status. While slightly more non-first-generation students

participate in projects with lecturers, almost half of first- and non-first-generation students indicate that they plan to participate in such projects.

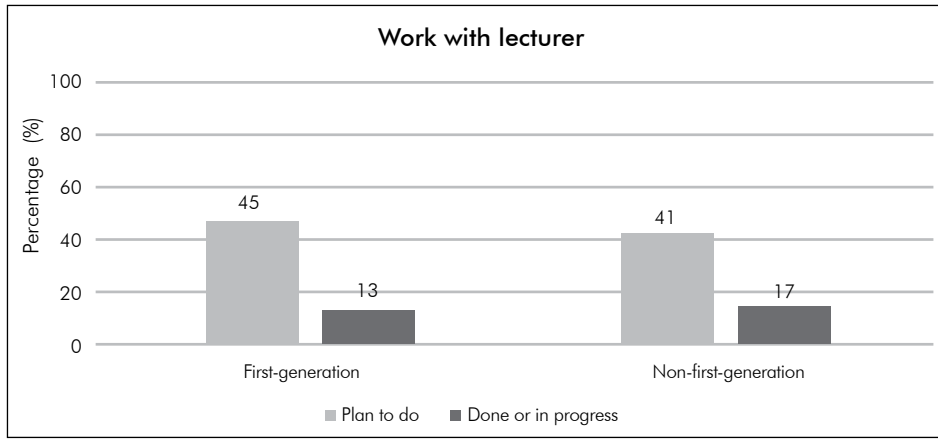

FIGURE 5.11 Work with lecturer by generation status

Taking a step back to look at overall participation of first-year and senior students in these HIPs, Figure 5.12 shows some promising findings. In general, there is relatively high participation in group work (68% and 72% respectively) and peer learning support (both 63%) among both first-year and senior students. Further, senior students indicate higher participation in most HIPs, implying a positive distribution of HIPs beyond the first year. This is important because of recent anecdotal concerns amongst lecturers about institutions placing too much emphasis and resources on first-year support while neglecting continuous support for senior students. Another promising finding is the slightly higher participation of first-year students in academic literacy programmes as well as higher participation in first-year seminars. As noted earlier – and will be expanded on later in the chapter – significant efforts on helping first-year students succeed have been put in place, the results of which might be starting to show here to some extent.

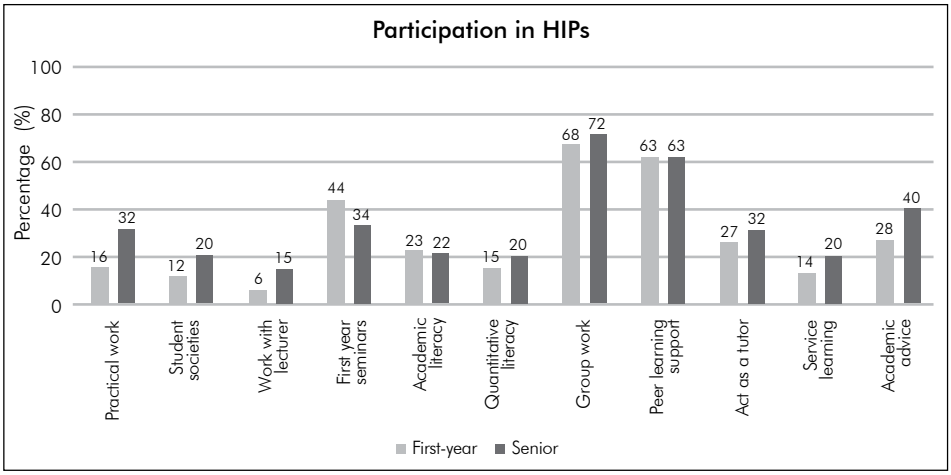

FIGURE 5.12 First-year and senior students' participation in high-impact practices

What is concerning from the findings is the general low level of participation in most of the HIPs measured. Without differentiating between year of study, the collective sample indicated that they still "Plan to do" the following HIPs: practical work (55%); participate in student societies (36%); work with a lecturer (44%); consult an academic advisor (36%); make use of peer learning support (22%); and act as a tutor or learning facilitator (40%).

WHAT DO THE DATA TELL US ABOUT HIPs IN SOUTH AFRICA?

Based on the evidence provided in the sections above, what we know thus far about HIPs in the South African context is as follows:

- In general, and excluding participation in group work and making use of peer learning support, participation in HIPs is low.
- Participation in FYEs and academic advising (both approximately 40% of the whole sample) looks promising and national and/or institutional efforts to enhance support, particularly for first-years, seem to be taking off.
- A closer look needs to be taken into the literacy and numeracy abilities of students entering university and which scaled interventions could impact on providing support for those in need.
- Regarding racial differences, significantly more black African students plan to participate in the following HIPs: internships, FYEs, do more group work, consult academic advisors, make use of peer learning support, act as tutors, student societies, and projects with lecturers. While white students do not particularly stand out in their plans to take part in HIPs, they take part more than black African students in projects with lecturers, internships, registering for mathematics/

numeracy course, and group work. White students also show more disinterest in participating in student societies and acting as tutors or learning facilitators.

- First-generation students indicate high scores in planning to participate in HIPs, such as student societies, internships, FYEs, literacy courses, group work, academic advising, making use of peer learning support, and acting as tutors/learning facilitators.
- More than half of the general sample report some service learning components in their courses.
- The majority of students are either planning to do HIPs, not planning to do HIPs, or are unsure (as opposed to those actually participating).
- HIPs need to be prioritised and scaled for maximum impact.

However, the data overview presented here needs to be cautiously interpreted. First, discussions about which practices in the South African context could be considered to be of high impact are still ongoing. To date, there is not enough evidence on scaled practices showing a relationship with student development and success. In this regard, the items included in the SASSE give us an indication of whether students are participating or are willing to participate in practices where the developmental potential has either been proven, or where a developmental focal point is necessary. Of course, the inclusion of these items is always open for debate. A second consideration is that the inclusion, exclusion, or prioritisation of certain practices considered to be of 'high impact' might differ between institutions. This implies institutional consideration about which HIPs are aligned with their identities and priorities, as well as a commitment to enculture these practices as a vehicle for student success. Thirdly, there is a lack of an inclusive and common language of prioritised programmes or practices between staff and students. The lack of a common language might impact how students respond to SASSE questions. For example, while most first-year students would have participated in some version of an FYE, they might not link this experience to a 'first-year experience'. Having a common language, for example, knowing what an FYE is, could contribute to 'getting everyone on the same page' in terms of expected participation, developmental outcomes, and should also impact the quality of the programme. A final consideration when interpreting these results is the small sample. As stated earlier, the smaller sample provided opportunity to pilot the inclusion of more HIPs; however, it should not be assumed that participation rates reported here are generalisable to the much larger public higher education sector. Sharing the data therefore has two purposes: (1) to stress the importance of institutional reflection in identifying, implementing and measuring scaled interventions targeted at student success; and (2) to provide

a snapshot of current participation rates in identified HIPs from a sample of around 2 500 undergraduate students.

THE WAY FORWARD

Even though the developmental pathways of HIPs in the United States and South Africa are at very different stages, both still have to address issues of participation, scaling and determining the conditions for maximum impact on student success.

Participation in HIPs at four-year colleges and universities in the United States ranges from half of all seniors reporting an internship, followed closely by about 47% participating in a capstone experience, to the lowest proportion (only 15%) of seniors reporting a study abroad experience (NSSE 2015). Similarly, the SASSE data show that even though many students are participating in group work and peer learning support, participation in other HIPs are quite low. Considering that students' willingness or plans to take part in HIPs outweigh their actual participation, we need to consider whether the opportunities for participation in HIPs are available to these students.

The vast majority of the South African literature examples supporting the inclusion of the HIPs outlined above are reports on small-scale interventions, often limited to pedagogical contexts, which have made a positive impact on student success and development. Except for the national focus on supporting first-year students, none of these reported studies or interventions target institutional efforts to enculture high-impact practices on a large scale. A pressing need in the South African context is for institutions to identify and prioritise HIPs which they could take to scale. Similarly, in the United States, the idea of moving HIPs to the centre of the undergraduate experience, versus offering them as boutique programmes that only small proportions of students can experience has been a frequent call to ensure that all students can experience the benefits of HIPs (AAC&U 2007; Bass 2012).

Kuh (2008) advocates ensuring two HIPs for all students – one early in the educational programme and one later in their studies. Students are also encouraged to engage in more engaging practices, because the more of these practices students experience, the more likely they are to reach key milestones. It is therefore critical to intentionally build many of these practices into every student's educational experience (CCCSE 2014). More recently, educators have made the case for requiring HIPs, increasing expectations to no fewer than three or four experiences in undergraduate education, and ensuring equitable participation in high-quality experiences. Some institutions have instituted graduation requirements that include participation in at least two out

of four sanctioned HIPs, while others have constructed elegant plans to increase HIPs by better integrating curricular and co-curricular experiences.

Lastly, determining the conditions for maximum impact on student success relies heavily on combining existing knowledge with contextual research, knowledge and circumstances. In the United States, although there is plenty of evidence supporting HIPs, not all students necessarily gain the same developmental capabilities, nor to the same extent through HIP participation. Thus, further research on the impact of different HIPs on different students, as well as deeper analysis of specific aspects within broader HIPs, which contribute to development, is needed (Kuh 2007; Brownell & Swaner 2010).

Another dimension of developing HIPs is tracking the extent to which students take advantage of them. Some HIPs like first-year seminars, service learning and internships have become more available across a range of institutions across the United States. Increasingly, community colleges have adopted learning communities, first-year experience programmes and internships (University of Texas at Austin n.d.). Interest in making HIPs more widespread has motivated some institutions to examine access to HIPs, while others have implemented initiatives to increase participation. For example, Indiana University-Purdue University Indianapolis (IUPUI) knit in HIPs to their educational requirements. IUPUI's strategy to integrate undergraduate research or service learning into their required first-year learning communities ensured all students greater experiential learning and demonstrated a concerted effort to create HIPs reflective of their urban commuter student experience. The University of Wisconsin Madison devised a focused approach to introduce HIPs to new students beginning with orientation and throughout the year via advising. A curricular map, identifying where students could be exposed to HIPs in the undergraduate programme was made explicit to faculty and students. Hobart William Smith College focused on expanding opportunities for students to experience two HIPs, service learning and study abroad, that were most relevant to their mission. Convinced that these experiences made a difference in terms of persistence and engagement, administrators determined who was underrepresented in service and study abroad experiences (i.e., males and low-income students) and involved faculty and student affairs in devising approaches to making these experiences more possible for students. The contemporary focus on increasing student success and using evidence to improve have motivated campuses to advance the adoption of HIPs, document the educational benefits, and craft more effective approaches to support these practices. However, while research shows that participation benefits all students, not all students take part. It is time to seize the

opportunity to adopt intentionally structured curriculum for ensuring that HIPs are more widespread and available to all students.

Turning back to identifying, developing and measuring HIPs in the South African context, the data we have on student participation raise serious questions on whether the environment is conducive to helping historically disadvantaged or underserved students move beyond a lack of awareness of which developmental initiatives they could benefit from and 'planning to participate' in HIPs, towards participating and benefiting from these practices. Further, the low participation in general means that a strong national and institutional intentional mind-shift is needed to identify, develop, and measure scaled programmes targeted at student success. This is particularly important because of the potential of HIPs to contribute to the additional development and support needed by disadvantaged students (Kuh 2008), which make up a large part of the South African student body. Additionally, such experiences add meaning to learning and contribute to how students shape their academic identities. "These are the kinds of experiences and transformative outcomes that are often used to characterise university education" (Coates & McCormick 2014:9).

CONCLUSION

Through this chapter we showed the developmental impact of HIPs in the United States context and how we are starting to foreground the importance of such scaled practices through the South African student engagement work. The HIPs identified and measured through the NSSE and SASSE surveys have been positively associated with the conditions or hallmarks which make HIPs successful. This in turn, impacts on student development, engagement and ultimately their successful completion of higher education. Although institutional values, missions and visions differ, it is safe to say that these are the core attributes which all higher education institutions should aim to pursue for their student bodies. Even though the potential of most of these HIPs have been brought into focus in South African context, there is a need to foster greater shared understanding about the value of making these practices more widespread. More research is needed on which scaled interventions have been put in place by institutions as well as evaluating the impact of such interventions.

While the impact of HIPs in the United States context has not been questioned, concerns have been raised by educators involved in HIPs about the significant challenges associated with assuring quality, bringing these practices to scale and into the centre of the undergraduate education, and to ensuring equity in participation. The variety of programmes/interventions and the contexts they find themselves in makes it almost impossible to list best practices to ensuring quality,

however, rigorous planning and assessment, both through students' perceptions of these experiences and through the direct evidence gathered from the products of student learning, should help build benchmarks of quality (Finley 2011). Finally, it is not surprising that the identification of an array of practices that when done well have a profound effect on student success has caught fire in postsecondary education, but it is only through the interest and dedication of higher education staff and broader institutional commitment that HIPs will realise their full potential for impacting student development, engagement and success.

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6 LEVERAGING STUDENT ENGAGEMENT EVIDENCE FOR INSTITUTIONAL CHANGE AND IMPROVEMENT

Hamish Coates & Ali Radloff

If you want to go quickly, go alone. If you want to go far, go together – African proverb

INTRODUCTION

This chapter is based on work by Coates, Radloff and Strydom (2014)[1] and Coates and Radloff (2014).[2]

In recent years, student engagement has emerged has a priority for institutions. As post-secondary education continues to expand globally, keeping students engaged has become an issue for educators, institutional leaders and even for system level policy-makers. With greater choice than ever before, and increasing financial contributions to their own study options, students, prospective students and their families want to invest in an experience that is transformative and leads to successful outcomes.

Student engagement spans considerable practical and analytic territory and opens myriad opportunities for investigation and educational improvement. However, a hard (if not the hardest) part of applied research is getting organisations and people to convert results into change.

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1 Used with the kind permission from the publishers: Coates, A. & Radloff, A. (2014). Broader strategies for developing student engagement. In: H. Coates & A.C. McCormick (Eds), *Engaging university students: International insights from system-wide studies,* 139-150. Singapore: Springer.

2 Used with the kind permission from the publishers: Coates, H., Radloff, A. & Strydom, J.F. (2014). Role-based insights into enhancing student engagement. In: H. Coates & A.C. McCormick (Eds), *Engaging university students: International insights from system-wide studies,* 127-138. Singapore: Springer.

The first part of this chapter uses the role or designation as an international/generalisable vehicle for engaging people in evidence-informed change. Taking a broader quality-improvement perspective, the second part of the chapter explores how institutions can use survey results to prompt change. Student engagement is a complex and dynamic phenomenon that often cuts across conventional organisational structures. Hence important challenges and opportunities are best considered from a higher level or even a cross-institutional perspective.

Both parts of this chapter integrate broader perspectives from the insights that flow from involving thousands of people in large-scale projects over several years. Coates and McCormick (2014) provide an overview of these initiatives. The sections give life to strategic approaches for enhancing higher education by linking these with propositions for boosting student engagement. These are concept pieces that to work would need considerable refinement and adaptation within the organisational context and operational environment of a programme or institution.

ROLE-BASED IMPROVEMENT INSIGHTS

The deep and broad conceptual scope of student engagement weaves many stakeholders into enhancement work – institutional leaders, learners, lecturers, support staff, prospective students, parents and families. Large-scale studies offer much to many people. This breadth, at the same time, provokes the challenge of indeterminacy – of having too many change prospects on the table to know how to prioritise and proceed. Realistically, different people and organisations find different points of interest and relevance. Even given functional and labelling variations across institutions and systems, the role or designation offers a suitable means of presenting concrete suggestions for using concepts and evidence from student engagement research for enhancement work.

These summary insights are filtered through several selected roles. The list is not intended to be exhaustive but rather to offer a canvass for distilling reflections from the cross-national studies. We explore the perspectives of quality assurance professionals, institutional researchers, programme coordinators, librarians, academic advisors, career development staff, and first-year experience and orientation programme staff. Chapter 8 explores the role of leaders in greater detail.

Quality assurance professionals

As earlier chapters of this book have sketched, the idea of measuring and monitoring student engagement took shape through research in the United States on how to provide the most pertinent data for institutional assessment. As a measure of what

students do, and how they are supported, engagement data provide important insights on key dimensions of institutional practice. These insights can stimulate enhancement and improvement initiatives that inform the quality assurance process.

Quality assurance staff should ensure that student engagement is a part of institutional policy. Quality assurance staff have a persuasive influence on policy development about the institution's quality objectives, and the principles and processes that will underpin monitoring and review. Given the relatively recent development of student engagement, several institutional policies may need to be revised to take student engagement into account. Processes for organisational review and annual monitoring of and reporting about quality, may need ongoing adjustment to ensure that facets of engagement pertinent to a particular institution are considered.

Annual monitoring processes can require a close attention to student engagement data, or to specific aspects of the phenomenon. Policy may require that improvement plans resulting from organisational reviews must have specific reference to student engagement practices within the unit under review.

Usually, improvement plans are targeted at lifting performance in an organisational unit. It can also be worth building into policy that good performance in one unit will be explored further and reported to other units. For example, data may show that part-time students across an institution are unhappy with the learning skills support they receive, except for those part-time students in the school of business at a regional campus. Conducting focus group interviews and staff surveys or documenting the practice of advisers, could be ways in which to extend an understanding of good practice as reported by students, and to promote adoption of that practice elsewhere within the university.

Profiling good student engagement practice can be used as a helpful reference point. Quality assurance staff in universities have the privilege open to few others – of being familiar with good practice across their institutions. There is no one better placed than quality assurance staff to profile good student engagement practice. Building the student engagement good practice network can be a key part of their role in prompting innovative solutions and responses to the student experience.

For example, results from student surveys, supplemented by some additional research, may reveal that the way in which tutors in a first-year engineering subject have linked tutorial groups via a wiki has had a remarkable impact on student engagement. Tutors in a first-year linguistics subject, who are struggling with student engagement, may never hear about the engineers' wiki, unless they are informed of the successful practice in engineering. Systematically profiling good student engagement practice,

across institutions, across campuses, across faculties and departments, is a key element of a quality assurance role, including informing faculties and departments of the existence of such a system.

Institutional researchers

Institutional researchers play a vital role in analysing, interpreting and communicating insights on student engagement. Results provide a variety of staff and students with a wealth of information, and can inform course reviews, support strategic analysis at the academic staff and campus levels, and enrich reviews of support services offered by administrative divisions.

A considered approach to using data on students' engagement ensures that the data and analyses are fully understood so that the greatest benefit from collecting data is achieved. Such an approach includes reporting results to staff and to students, and on actions planned by the institution in response to survey outcomes. Institutional researchers can therefore demystify student engagement data. Users of data need clear information and advice about what the data and analysis do – or do not – tell them. They can offer their colleagues a comprehensive understanding of the different facets of student engagement. They can explain the methodologies used to develop the survey sample and to determine results.

Institutional researchers can also identify and respond to the data needs of different audiences. Reports and analyses need to be fashioned and presented so that they meet the needs and interests of different audiences. A summary university level report will offer a level of analysis and detail different from that provided for a course review. Similarly, a summary report for students of empirical insights into their own engagement demands a particular focus.

Responding to the specific needs of different audiences requires that summary tables and charts be supported by textual explanations to ensure understanding of what is being presented. Institutional researchers may provide support and advice to the interpretation of evidence on engagement by advising reference/steering groups, liaising with academic development units, and contributing to resources developed to enhance the student experience.

Of course, engagement data should be interpreted within an institutional context. Maximum benefit from data is gained through robust discussion of student engagement that is informed by data analysed and interpreted within the context of an individual institution. What is important to each institution at a given point in time will depend on contextual factors relevant at that time. Interpretation of the data must

recognise these contextual factors. Institutional researchers can undertake advanced analysis of student engagement data. They can support the nuanced application of data in many ways, including:

- benchmarking at the institution level, or at a lower level of aggregation (e.g. faculty, school, course), depending on response rates and number of responses;
- linking with other surveys, enrolment and assessment data sets; and
- analysing open text comments (see Chambers & Chiang 2012) to make best use of this valuable feedback on student engagement.

Benchmarking is an activity that institutional researchers and their teams have the skills and knowledge to support. Productive benchmarking depends on nuanced interrogation of data. Comparisons within and between institutions must account for variations in cohort composition, such as relative proportions of part-time and full-time students, or of international and domestic students. These variations have a significant influence on an institution's student engagement outcomes.

Department chairs

Department chairs play a significant role and are a pivotal in shaping successful student engagement. They have a definitive influence over how student engagement is integrated into programme design and how it is reflected in teaching practice. They influence how the programme actively links its students to learning skills support, student services and the wider life of the university. They influence the development of policy and processes so that they promote high-quality learning outcomes for their students.

Department chairs can put student engagement on the agenda when a programme is reviewed. Programme and course or unit reviews are good opportunities for shaping curriculum in ways that promote student engagement. Because so much learning goes on outside the classroom, a key area for focus may be to influence the kind of learning that takes place outside the lecture, the tutorial or the laboratory.

It is important to support teachers to work with student engagement principles. Tutorials and laboratory sessions often rely on a variety of part-time and adjunct teachers who may have limited knowledge of the principles that underpin student engagement. Yet teachers are the academic staff with whom most students have the greatest level of interaction. Department chairs can ensure that induction and professional learning opportunities for teachers include reference to student engagement research and to the way in which student engagement principles are embedded in unit learning and assessment designs. They can ensure that teachers

are introduced to ideas about how to promote student engagement in small group learning environments.

Tutorials provide ideal opportunities for structured peer-learning activities, which have additional benefits beyond the tutorial. Properly managed, they can foster beyond-classroom study groups, friendships and informal networks by bringing together students who may not know each other. As the principles sketched in the opening chapter and country case studies affirm, both peer learning and connectedness increase student engagement.

Department chairs should identify opportunities for student-staff interaction beyond the classroom. Creating opportunities for interaction between teachers and students is especially important for sustaining student engagement. Students value formal and informal interactions outside the classroom. Such interactions can reinforce motivation, a sense of purpose, a sense of connection. As the literature and findings in the earlier chapters convey, they contribute to student persistence and better academic performance.

Part of the challenge is to establish opportunities for frequent interaction with teachers. Inherent in the conceptual and empirical frames that shape student engagement is an understanding that student-staff interactions have a significant impact on high-quality learning. In the Australian case, as with the South African data presented in Chapter 2, it is disconcerting that so few students report meaningful and frequent interactions with lecturers outside the classroom (see Radloff & Coates 2014). Australian teachers have seen this differently, with results from the academic staff surveys showing that more staff members than students believe they have meaningful and frequent interactions with students beyond the classroom. Exploring these perspectives with students and staff may clarify what is at the heart of such divergent views and provide a platform for insightful change.

Librarians

Librarians offer a particularly useful lens for exploring the leadership of student engagement. Libraries share much across organisational and national borders, and have tended to be early adopters and advocates of enhancement practices.

Libraries can engage students with learning in many ways. The physical space itself can be used to ensure that there are sufficient resources available to students, enough independent study areas, collaborative learning spaces and sufficient numbers of computers or wireless access areas. Although increasing numbers of students are not campus-based, it is still important to consider how the physical library space can

best engage students with the library and with learning. Are the collections easy to access? Do the operating hours meet students' needs? Are there enough computers or areas where students can connect to the internet wirelessly? Are the silent study areas and collaborative learning spaces adequate? How could they be improved?

Libraries also exist in the virtual world, allowing distributed learning to take place, and allowing access for external, distance and online students, and for more flexible kinds of learning. Librarians contribute to student engagement by providing expertise to students through formal workshops or tutorials and by providing guidance informally. Librarians help students learn the best ways to access and use quality information and resources, help them to enhance their study and research skills and explain how to use the latest technologies to enhance their learning. It is important to increase student access to library resources as much as possible. Increasingly, even at campus-based institutions, students are studying part-time, online, externally or by distance. As a result, university libraries are progressively becoming distributed learning spaces to cater for more flexible learning, and for part-time, distance and external students.

Many university libraries now use social networking sites to keep their students up-to-date on new acquisitions, upcoming workshops and classes, and changes to opening hours. Students who add their university library to social network accounts receive these updates as part of their newsfeed. Other universities use feeds or send out targeted emails to students to keep them updated on what is happening at their library. Students are now used to accessing library resources via the web at any time. Universities are making access to library resources even easier and more flexible by allowing students to add their catalogue searches to personalised homepages, or by letting them search the catalogue using social networking sites. Some universities have even created a mobile web version of their library website and catalogue, giving students the flexibility to access their library on smart devices, at whatever time and wherever they are.

Libraries also make it easier for students who cannot come on campus to access librarians and their knowledge. Libraries do this in various ways: through online functionality, such as live chats, instant messaging or online forums where they can consult with library staff, and through podcasts of classes or tips on researching, referencing and using library resources.

First-year experience coordinators

As indicated in the cases of the United States, Canada and South Africa, the data obtained from the range of student engagement surveys can be meaningfully linked

over time at the individual student level to understand how students engage. The particular example of linking the Beginning College Survey of Student Engagement (BCSSE) (Beginning University Survey of Student Engagement [BUSSE]) and the National Survey of Student Engagement (NSSE) (South African Survey of Student Engagement [SASSE]) data to inform first-year experience and orientation programmes has been noted in research (Kuh, Kinzie, Schuh & Whitt 2010; Strydom, Oosthuysen, Hen-Boisen, Loots & Posthumus 2017).

First-year experience (FYE) and orientation programmes serve as an avenue where student engagement data can be used to design and monitor curricular experiences for first-year students, while simultaneously being used as content material. Using matched engagement results such as this in the design of FYE curriculum presents a unique opportunity for a campus to require students to participate in a wide range of effective educational practices.

Using data from recent engagement survey administrations in the content material of such programmes is a powerful way of bringing research results 'closer to home' and making students aware of the experiences of their peers. Furthermore, by incorporating research results into programmes, students are made aware right from the start of their campus experience that the institution takes assessment seriously and that their input in research processes is not only valuable, but also used meaningfully by campus leaders.

Academic advisors

Academic advisors help students develop their capacity to participate effectively in learning by helping with sound education planning and referring them to resources that help them with academic success skills. In essence, academic advisors play a role in providing support given their student-focused perspective. Their contribution to student engagement may be direct, through the teaching of academic skills, or it may be indirect, through a referral to other services that promote wider aspects of student engagement. Knowing about the range of services and other avenues that support student engagement is an important part of every advisor's role.

Advisors may work one-on-one with students, supporting them to develop strategies to more actively contribute to tutorial discussion: asking questions, critically analysing information, and volunteering answers. They can help students understand why attending lectures and reading materials before the class and/or tutorial are key to effective participation. They might draw the attention of a shy or lonely first-year student to university clubs and societies. Advisors are able to identify students

volunteering opportunities that may help them develop confidence, make friends and feel more engaged with the university community.

Advisors can design language support programmes to build student engagement. They can play an important role in student engagement by creating, and helping to maintain, support programmes that extend beyond the traditional classroom or advisor relationship. One possibility would be working with community agencies to integrate a volunteer component into language support programmes. Through community involvement, students can practice communication skills, develop wider personal networks and contribute directly to the university's engagement with its region. Another example would be to design and support, perhaps in concert with a faculty or academic programme team, a conversation club for international students that enlists domestic students as facilitators. Advisors could provide training to the domestic students on how to lead a group effectively. This kind of exchange can be both fun and rewarding. International students can make connections with domestic students and learn more about the local culture. Strategies like this would likely yield benefits for domestic students too as they become more engaged in university life through contact.

Advisors can put their advisory skills to work in clubs and societies. They have a range of capabilities that can directly support student engagement and academic skills development. They can connect their capabilities to the needs of clubs and societies and other student services. For example, if a student society or club is planning an event, advisors could contribute by using the planning phase as an opportunity to teach teamwork and project management skills.

Careers advisors

A significant number of students' academic engagement is undertaken to prepare for life after higher education. Employers recruit graduates who are well rounded and have a range of skills over and above those gained in the classroom. Careers advisors can encourage students' involvement in a variety of extra-curricular activities, both at university and externally which will develop their skills in a range of key areas. Extra-curricular activities help students to develop the broader skills that employers seek. These skills are often related to universities' graduate attributes and include communication, teamwork, problem-solving and organisation, among others.

Participating in extra-curricular activities enhances students' résumés and interview content. Students can present evidence of participation in these activities to demonstrate they are well rounded and have a range of sought-after skills. In addition, it seems likely that students' knowledge of themselves – their interests,

aptitudes, values and strengths – grows enormously with exposure to a range of different activities and experiences. This, in turn, makes for more informed career decision-making.

Consider the best ways for students to get involved. On campus, students can host new students during orientation, become a peer mentor, assist on open days, write for the student newspaper, serve as an office bearer for the student union, and be actively involved in a club or society. Off campus, students can do volunteer work, which is especially useful if the work is related to the student's career goals. Other activities that could be valuable in broadening students' lives and their development beyond the university include sporting clubs, community groups, involvement in a range of interest areas, and of course, part-time or casual paid work. These activities develop skills and knowledge and enable students to learn more about themselves and their potential.

A key role of the careers professional is to help students understand the value of participating in these activities, and to provide students with insights in the learning that can occur through involvement in them. Assisting them to see the relevance to later employment and where careers may link in with these activities, is one of the main responsibilities of the careers professional. Careers advisors could hold a volunteer day or a careers fair, where they can advertise opportunities, such as hosting or mentoring students and volunteering for various organisations. Some strategies for careers staff include emphasising the benefits of getting involved in volunteering and other activities – not only to students but also to academic colleagues. This could include preparing a handout in orientation material about the value of getting involved, and making sure casual and part-time work advertisements highlight why this type of work could benefit a future career.

Even in the most elite higher education settings, work-integrated learning is one of the key aspects of student engagement that is relevant to staff involved in student careers development. Work-integrated learning provides many benefits to students, and gives them:

- an opportunity to put theory into practice and gain valuable workplace knowledge and skills;
- an insight into an industry or career they may be interested in pursuing;
- a range of valuable experiences and insights that can be highlighted in the résumé and during interviews; and
- better insight into, and appreciation of, theoretical content on return to the classroom.

Careers staff can best assist students to extract the most from work-integrated learning by:

- assisting students to best understand what they have learned and experienced, and why that is valuable to employers;
- assisting students to optimally present both the skills and knowledge they have gained via their résumé; and
- encouraging students to document their experiences in an e-portfolio when that option is available.

For other stakeholders, careers staff can also add to the value of work-integrated learning by:

- working with academics to ensure they are assisting students to understand the value of work-integrated learning;
- encouraging students who have undertaken work experience or another form of work-integrated learning to speak to other students in class to convey the benefits and give other students advice; and
- determining if a graduate employer may be prepared to take students on for a period of work experience and linking with employers to see if they could take more students and students from other areas.

In summary, to enhance student engagement, careers guidance staff can:

- act as a key source of expert, current knowledge in the university about what employers look for in the way of skills and knowledge in addition to technical knowledge and classroom learning;
- collect resources relevant to these different forms of knowledge – directly or indirectly – through the campus, community, etc., and interpret information for the students;
- make these resources available and visible to students;
- promote the value of involvement to students (and academic staff) at every opportunity;
- publish 'good news' stories of student endeavours wherever possible, using websites, university newspaper and flyers; and
- ensure workshops and individual consultations with students highlight the importance of, and possibilities for, student involvement with relevant groups on and off campus.

Clearly, there are myriad ways in which careers staff can encourage and help students participate in activities that enhance learning and development outcomes. This is important in and of itself. Encouraging students to participate in these types

of activities influences students augment capabilities that will help them build their future careers.

BROADER STRATEGIES FOR DEVELOPING STUDENT ENGAGEMENT

As more people participate in higher education globally, and as new technologies spur new forms of delivery, the nature of education becomes more complex. For institutions, engaging students can mean more than just making sure they don't drop out. It can create long-term and strategic opportunities including attracting prospective students, developing graduate attributes such as team-work and communication skills, producing highly motivated graduates, establishing meaningful alumni relationships leading to mentorships, enhancing staff development and satisfaction, developing innovations, and enhancing institutional reputation.

With the intention of being helpfully prescriptive, the following analyses review development of institution-wide approaches to enhancing student engagement. Rather than work through the role, the following sections unpack several inter-related improvement strategies. The strategies cover developing institution-wide approaches, establishing benchmarking for continuous improvement, broadening staff involvement in student learning, enhancing student interactions with staff, and monitoring quality data over time.

Developing institution-wide approaches to student engagement

Responding to student needs is a basic tenet for engaging students. Developing a successful student engagement strategy means building student perspectives into the way an institution organises itself around students. The starting point is students rather than institutional structures and procedures.

Student engagement rests, first, on the idea that students are independent learners with responsibility for managing their own education. Second, it rests on the concept that a university has a responsibility to create an environment that supports and encourages students to manage their learning effectively. The selection of student engagement strategies is informed by considering how to allocate institutional resources so that creative and productive relationships are established between students, their learning journeys and the institution.

A key characteristic of effective student engagement is an integrated web of supportive institutional practices. Establishing and maintaining that web involves identifying the potential for creative and productive links between practices as diverse as career and employment services, student guilds, advising, learning support, study abroad, peer

tutoring, department academic strategies, the use of diagnostic assessment designs in the early part of semester, cafeteria hours, and so on.

It is vital to develop responsive strategies for effective student engagement. The selection and development of strategies that promote engagement will depend to a considerable extent on:

- academic and professional staff understanding the student engagement evidence base and theoretical contributions that have shaped the concept over the years;
- close appreciation of data, including student engagement data, that will help guide the crafting of strategies;
- recognition that students are not homogenous, and that different strategies will be needed for different groups of students; and
- recognition that institution-wide strategies cannot substitute for student engagement strategies at the academic department level.

It is particularly important to understand the principles of student engagement. Student engagement has a deep evidence base built up over several decades. Academic and professional staff are more likely to accept that strategies for student engagement should have some priority if they understand the evidence base for student engagement and the principles that follow from it. This matters because all staff are busy and all have multiple priorities and commitments. Adopting new strategies means that existing workloads and priorities may have to be reconsidered to make room for those strategies. Sometimes adopting new student engagement strategies will require incremental changes to existing practices. At other times, new strategies will require more than adaptive change – they will require adoption of new ways of working as well as new approaches to recognising and rewarding that work.

An understanding of the principles of student engagement can act as a filter and a guide for academic and professional staff who are planning and reviewing, or making minor adjustments to, academic programmes, assessment practice, teaching designs, student learning and other support services, orientation programmes, open days, career services, or approaches to supporting peer-to-peer interactions in both academic and social contexts.

The best means of securing a deeper understanding of student engagement will differ between and within universities. Specific professional development on student engagement may be necessary. It may assist if other professional development activities incorporate student engagement perspectives. Task-specific support may help. Targeted and knowledgeable input on student engagement could be offered to a teaching team refreshing first-year engineering subjects, a group charged with

developing a capstone subject in international development, or course advisors evaluating the effectiveness of their service delivery over the past year.

Analysis and interpretation of data will be instructive and influential if the principles of student engagement are widely shared. The data can be a key input to selecting strategies, and to their planning, monitoring and evaluation. Particularly when compiled from multiple sources and modes, it can provide a firm foundation for conversations about quality enhancement.

Student engagement is a complex phenomenon. Institutions will have access to other data that could support their inquiry and strategy selection – the data of their benchmarking partners, retention data, student evaluations of teaching, perhaps data from another survey or focus groups on orientation activities or a work-integrated learning programme. An institution's student engagement data are a valuable resource that offers a particular and important perspective, but it will be one resource among many.

Student engagement data are particularly helpful in identifying how different groups of students evaluate their experience. These differences allow users to identify institution-wide strategies that address shortfalls in student engagement for specific groups, such as first-year students or international students. For example, if only 25% of an institution's first-year students report using student learning support services often or very often, a general strategy may be required to promote greater use of those services. A closer look at survey results may reveal that 40% of first-year international students make use of these services, but only 20% of domestic students do so. This might suggest that targeted strategies are required.

Institution-wide strategies can substitute for localised strategies when they are needed. Suppose 25% of an institution's first-year students in humanities fields report working with other students on projects during class. Yet an institution-wide analysis notes that 40 to 60% of students in other fields of study report working with other students on projects during class. These data might suggest that a specific focus is needed in some faculties or departments to consider how tutorials are delivered or how assessments are designed.

While a localised response may be required in the example mentioned above, local responses have a much better chance of success if there is a supportive institution-wide approach to student engagement. It is likely that an institution-wide approach will be needed for the analysis and reporting of survey outcomes, to support monitoring and evaluation of changed practice, and to explain the evidence base and the principles of student engagement to specific groups of academic and professional staff. An

institution may undertake an institution-wide audit of existing practices against key principles of student engagement. The institution could then establish specific and regular reporting mechanisms, such as annual student engagement reports. Student engagement could become a standing item on appropriate academic, management and business committees. Other options, which have both symbolic and practical impacts, include establishing:

- a university office for student engagement;
- institutional awards for student engagement; and
- a fund for developing student engagement practices, or for pursuing research on aspects of student engagement.

Benchmarking for continuous improvement

Benchmarking can deepen the analysis and interpretation of data on student engagement, and what it can yield. Student engagement data can be benchmarked using criterion- or norm-referenced approaches. Benchmarking might take two hours or a year, or ten – each institution decides what is appropriate. Benchmarking activities offer opportunities to involve students in the collection and analysis of data.

Criterion-referenced benchmarking involves establishing a target, usually a specified minimum outcome, or an outcome an institution aspires to. For example, the student-staff interaction items in the NSSE ask students to assess the frequency and nature of their contact with teaching staff. Data for an institution or faculty may show that 25% of first-year students report they "Often" or "Very often" have contact with teaching staff outside of class. An institution might decide, perhaps as part of a first-year strategy, that 50% is a preferred result on a metric of student and staff interaction. By nominating the preferred outcome – in this case, 50% – an institution establishes a criterion, a benchmark they aspire to. Against the criterion they can measure the effectiveness of changes put in place to increase the proportion of students who report that such interactions occur "Often" or "Very often".

Norm-referenced benchmarking involves comparing the institution's outcomes with other universities or faculty outcomes with kindred faculties in other universities. Normative benchmarking can be undertaken simply by comparing the institution's outcomes with the national or international results. This can give a general idea of the institution's relative performance on specific scales and items.

A deeper sense of the university's or academic staff's performance can be gained through active benchmarking of their arrangements with selected universities or faculties. For example, an academic or professional staff member in a law faculty

is likely to significantly increase the power of data analysis and interpretation by comparing the law faculty's outcomes with those of a law faculty in one or more other universities. This kind of normative benchmarking would extend good practices of student engagement in legal disciplines. It can also help to determine appropriate targets for criterion-referenced benchmarking in the faculty.

Benchmarking relies on the willingness of benchmarking partners to share data. As the data belong to an institution, the institution then decides which results to share. Initially, an institution might agree to share only scale results rather than results for each survey item. They might decide to share only results for certain scales, however, as their confidence grows, they may agree to share more.

It is especially helpful to compare results over time. To this end, benchmarking partnerships are usually long-term arrangements. Benchmarking partners usually establish a benchmarking agreement, covering matters such as:

- confidentiality of an institution's shared data;
- confidentiality of the discussions the institutions have about the data;
- how benchmarking with partners will be conducted; and
- the schedule for benchmarking activities.

Every faculty in every university – such as business, law, science, medicine – is different in important ways. Benchmarking allows them to tease out the influence of those differences on their outcomes. If an institution's business faculty operates across two campuses and one of their benchmarking partners offers business programmes on one campus, they can explore through discussion what effects these arrangements might have on their respective outcomes.

Students in different disciplines manifest different patterns of engagement. If results indicate that those studying information technology are frequently less engaged than those studying natural and physical sciences it would thus make sense for an information technology department to seek another information technology department as a benchmarking partner. Through these discussions they can better identify influences on student engagement for students in their discipline. An institution can assess impacts for information technology students of varied approaches to work-integrated learning, for example, or the creation of supportive learning environments.

Such discussions can reveal ideas about, and perspectives on, student engagement that are new and helpful. Benchmarking can offer ideas for adjusting an institution's practice based on the practical experience of their partners. Partners often develop

better approaches through discussion and sharing of practices. Benchmarking is a clear indication to students, to accreditation and quality assurance bodies, and to the institution's professional networks, that the institution takes student engagement seriously. An institution can report outcomes of benchmarking discussions to these groups, if the benchmarking agreement covers this.

Selecting appropriate benchmarking partners is an important decision. It can help if benchmarking partners are similar in some ways. An institution might consider faculties or departments with similar characteristics such as student numbers, student demographics (for example, proportion of students who are first in family to attend university, or proportion of students studying full-time), or location (for example, provincial or inner-city). A faculty might consider faculties that are strong performers on scales or items where the faculty's performance is not as strong as they would like.

Process benchmarking is another option. Sometimes an institution may wish to explore differences or similarities in survey outcomes at greater depth. Perhaps 22% of an institution's first-year education students respond "Quite a bit" or "Very much" in response to an item about whether an institution emphasises providing the support students need to succeed academically. An institution's benchmarking partners may have outcomes ranging from 42% to 56% on this item. Yet, based on discussions, the institution believes that the range of support services they offer is as wide and deep as their partners. An institution could seek the agreement of their partners to study how they link their first-year students with these services, how those services are managed, and how they are delivered.

In effect, an institution can process benchmark their own services against their partners' services to determine if there are improvements they could make. Benchmarking can also reveal fertile areas for research activity, which contribute to advances in the scholarship of teaching and learning. This research could be within a school or department, or cross-institutional within a discipline. It may be research that seeks to describe or explain exceptional and consistent outcomes, or it may be research that seeks to describe the impact of changes to practice that an institution introduces.

Broadening staff involvement in student learning

Student engagement data can be a key input to reviewing entire courses of study, revising assessment designs for first-year students, or revising feedback practice in a single subject. The evidence base that underpins the NSSE and its adaptations illustrates a clear link between student engagement and learning experiences that are challenging, enriching and supportive (McCormick, Kinzie & Gonyea 2013).

Exploring an institution's data with these aspects (support, challenge and enrichment) in mind can suggest areas for extension or improvement. Radloff and Coates (2014) indicate, that there is a strong correlation between satisfaction and positive responses on engagement questions about applying theories or concepts to practical problems or in new situations. Improving the proportion of positive responses to such item could involve a minor or a major review of pedagogical approaches and materials, such as case studies and tutorial problems. An institution can explore options that go beyond the classroom in pursuit of enhancing student engagement. For example, staff could design assessment tasks that can be completed through voluntary activities with community organisations, or in work placements. This kind of change is valuable. The challenge is to broaden teaching involvement with students beyond the familiar boundaries of coursework and classroom – to see learning, and an academic's role in supporting learning, in a wider context. An example of this is an item that taps into whether students received prompt written or oral feedback from teachers on academic performance. Feedback practice need not be limited to conventional activities like oral feedback on a group tutorial presentation, or written feedback on a test or assignment. A department or school could, for example, institute a debating event in a subject twice a semester with two teams of three tackling an impromptu topic. Each team might comprise two students and one academic from a department or school. A programme leader could be the moderator, or perhaps the head of school or head of department could fill this role, with moderation involving commentary on the debate and a short email to the student team members assessing the content of their presentations. The emphasis is on enjoyment, the outcome is learning, and the feedback is valuable.

A voluntary seminar programme for first-year students is another forum in which students could receive valuable feedback that is not linked to graded assessment. Students are valuable contributors in such activities, and academics can create challenging, enriching and supportive learning experiences by seeing students as competent contributors to the work of the university. Peer tutoring is a great example of this but it may not be an option that appeals to all students, or that all students are able to participate in.

If an academic sees students as formative contributors, and accepts that students are interested in challenge and enrichment, there are many options that can broaden an academic's involvement in student learning beyond coursework. For example, students could:

- take guided responsibility for literature searches and literature reviews;

- assist in editorial activities related to academic journals, such as layout, checking of reference lists to ensure they conform with the relevant style, and cross-checking in-text references with reference lists;
- assist with translation of documents related to academic research;
- introduce speakers at public lectures, and offer acknowledgements; and
- play a substantial role in promoting the study of science and mathematics in primary and secondary schools as part of the university's community engagement activities.

Such contributions require preparation and guidance from academic and professional staff. Developing such contributions as ongoing activities in a subject, department or faculty will lead to a growing fund of knowledge about how to structure preparation and guidance efficiently. Students who contribute in such ways can become part of the training effort for students who follow them. Inevitably there will be successes and some stumbles.

Lecturers can make a difference well beyond the classroom, and the literature on student and staff interactions that underpins contemporary student engagement research indicates that this is where many of their most formative contributions can be made. Innovation in teaching practice that promotes student engagement does not need to be confined within the boundaries of coursework. Innovation beyond those boundaries is likely to improve student engagement and, consequently, contribute to improved learning outcomes.

Enhancing interactions between students and staff

Much work on student engagement emphasises the importance of engaging students outside classes. Many academic and professional staff are generous with the time they commit to interacting with students. It may be found, for example, that 21% of students had worked with teaching staff on activities other than coursework, and that 44% of students reported talking about career plans with teaching staff or advisors. The complement of these figures, of course, is that 79% of students had not worked with staff on activities other than coursework, and 56% of students had not discussed career plans with teaching staff or advisors. Yet broad research evidence suggests that high levels of student-staff interactions have positive effects on learning, motivation, and persistence – on engagement.

Results from student surveys may be used to target wider engagement. When considering how to promote greater staff-student interaction, it is important to go beyond preconceptions that limit thinking and action. A common preconception is that many, or even most, students are rarely on campus. The presumed corollary is

that because students are absent they have no time to interact with staff outside of class time. Survey data can provide a check on the veracity of opinions like these. Survey results may indicate that 22% of domestic students and 36% of international students spent more than ten hours a week on campus outside class time.

The student-staff interaction scales used in the various national implementations comprise around six items. An institution's survey report provides data on the scale of each constituent item, and with a breakdown of the data for first-year students and later-year students. Data are also reported for other variables like field of study and study mode (part-time, full-time or distance). An institution can use these data to establish, for example, how many hours outside class time their later-year international students studying information technology spend on campus. It can help to compare an institution's data with national outcomes and with benchmarking partners. The comparison might lead an institution to set a formal target for improving the outcome on the student-staff interaction scale. Equally, an institution can approach the task incrementally by trying a range of interventions on a trial basis and examining what strategies make a difference, and then expanding the successful ones.

Student engagement data may offer an effective way of reviewing existing strategies, however, very often the challenge is to make these existing engagement strategies work more effectively. It may be that 30% of an institution's first-year students in management and commerce answered either "Often" or "Very often" to an item about discussing grades or assignments with teaching staff. The institution needs to decide if that percentage is a satisfactory outcome. The institution may investigate further and find that although all lecturers and tutors have scheduled hours for student consultations, very few students make use of the opportunity. They may find that first-year students feel uncomfortable about taking up the opportunity – students may not know anyone else who has done so, they may be uncertain what happens during a consultation, or they may be unsure about the benefits of a consultation. Academics and educational support staff can then begin to think about specific actions that might encourage students to take advantage of the opportunity by lessening anxiety. A description provided in a lecture or tutorial perhaps, or a testimonial report from students who have scheduled a consultation, or a video clip of a consultation accessible on the university's learning management system are examples of possible actions.

Student-staff interactions are often thought of in formal terms, such as 'scheduled consultations'. Such opportunities are evidently fundamental to education, but it is also important to develop informal engagement strategies. Further, it is useful to consider how informal interactions can become a larger part of the student experience.

Opportunities for informal interactions open possibilities for conversation across a wide range of topics. These interactions could introduce students to previously unexplored ways of engaging with their subjects and disciplines, and place the learning project in a relaxed context which supports engagement.

Informal opportunities could be as straightforward as having coffee with a small group of students now and then, and guiding conversation towards the career options a discipline leads to. Another option may be inviting three or four students to a lunch with a visiting scholar who has expertise in the topic for their team project. Another example may be running a late afternoon review session in the week before the first-year exam and ending the session with delivered pizzas. These are but a few possibilities; specific opportunities are best developed with sensitivity to student needs and institutional culture, and in consultation with student representatives.

It is common to think of staff/student interactions that promote student engagement as taking place only between academic staff and students. Professional staff can also play a role well beyond offering a scheduled learning support activity, or dealing with students on a formal, transactional and administrative basis about matters such as enrolment, special consideration or course advice. Finding ways to include professional staff in student-staff interactions can produce a sense of 'us' rather than 'me and them', and also reinforce shared responsibility for student success across functional areas and job descriptions.

Monitoring quality data over time

As with any survey, the impact is most powerful when institutions examine how results change over time. Monitoring results over time allows institutions to:

- identify areas for further growth;
- recognise and celebrate achievements;
- identify areas where performance seems to be declining;
- monitor progress toward improvement targets;
- identify professional development priorities for academic and general staff; and
- demonstrate quality improvement to students, to accreditation and quality assurance bodies, and to professional networks.

For example, monitoring the Work Integrated Learning scale, which forms part of the Australasian Survey of Student Engagement (AUSSE) over five years would highlight how survey results become more powerful over multiple administrations (ACER n.d.). It might be that the student perceptions of the work integrated learning programme over two years are not improving, but moving within a consistent range.

It might be that in a specific year the institution introduced an improved approach to work integrated learning which accounts for an observed improvement. Subsequent years' results may be better still, perhaps because the institution ironed out some teething problems encountered. Only people on the ground know the story behind the numbers. Only they can tell it. Every university, every faculty, is different. None of this means that the first two years' results are useless. The first two or three years of any data collection need to be seen in the context of the long-term quality improvement cycle.

CONCLUSION

As suggested in this chapter, rhetoric about student engagement can often be removed from the realities of institutional contexts, open to multiple perspectives and used for a variety of disparate purposes. For these reasons, it can be a challenging to attempt to anchor student engagement within the individual environment of each institution. It is helpful to identify clear strategies for improving student engagement. This chapter showcases a small number of ways that people with responsibility for leading and managing student engagement can structure their work. We reviewed developing role-based and institution-wide approaches to improving student engagement. Such improvement work does not require substantial or complex interpretation to guide change. Student engagement data are designed to be practically focused, typically linking directly with specific individual or institutional conditions or practices. In principle, therefore, it becomes easier for a broad range of stakeholders to review survey results and identify contextually relevant responses.

Unfortunately, evidence-driven change is usually difficult to achieve. Data from feedback surveys are only a small facet of broader institutional contexts in which many complex factors are at play, and such data can itself be indeterministic. Data pointing to low levels of interaction between students and staff may imply staff disengagement or student disengagement or the presence of practical obstacles that neither party can work around, or perhaps even a nuanced situation that goes undetected by a few individual survey questions. Understanding the effective transference of data into effective change is a significant research activity, and one, which this summary chapter has only begun to touch.

The suggestions are not intended to be exhaustive or essentialist. Rather, they are designed to prompt imagination in ways that spur innovative approaches to monitoring and improving engagement. Ultimately, the approaches discussed here seek to energise one broad agenda with the aim of enhancing engagement – encouraging people who have the potential to make a difference to take evidence

on student engagement seriously. The quality improvement literature suggests that there are an infinite number of ways this might be done, and in closing the current analysis we encourage creative consideration of further effective approaches. Are there particular approaches to recurrent or performance funding, for instance, which are likely to enhance engagement? What generalisable reporting designs and approaches are likely to spur the right kinds of action? What would student engagement frameworks that map out policies and practices in ways that signpost and prompt increasing levels of growth look like? What forms of cross-professional collaboration are likely to stimulate engagement?

It is important to recall that student engagement is an inherently contextualised phenomenon that requires regular reconceptualization, redevelopment, and redeployment. The advent of large-scale relatively open online education, for instance, creates new forms of engagement, unfurls new risks, and necessitates new forms of support. Engagement research has yet to yield a single 'silver bullet' that solves the engagement riddle.

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7 THE ROLE OF STUDENT AFFAIRS IN STUDENT ENGAGEMENT AND LEARNING

Vasti Torres & Matete Madiba

A man cannot sit down alone to plan for prosperity – Nigerian proverb

INTRODUCTION

For many countries, the belief that the United States has a respected and recognised student affairs profession makes the literature in that country the main source for guidance within higher education (Dungy & Gordon 2011; Schreiber 2014a). Student affairs in the United States does have a longer history than in South Africa and other countries, yet the role it plays in higher education has several similarities. This chapter seeks to consider the role engagement data can play in assisting student affairs to advance student learning. This, we argue, should be one of the most important focus areas for student affairs practitioners in both the United States and South Africa. To accomplish this, the chapter first considers the philosophical origins of student affairs in both the United States and South Africa. This is followed by a discussion on the evolution of student learning as a central tenet in the work of student affairs practitioners. The chapter concludes with an explicit connection with the data provided in student engagement surveys and the role student learning has within student affairs programmes.

STUDENT AFFAIRS' INFLUENCE ON LEARNING WITHIN THE UNITED STATES CONTEXT

The Student Personnel Point of View published by the American Council on Education (ACE) articulated the role of student affairs within the United States as focused on the "whole student" and the services that personnel administrators provided (ACE, 1949). The notion of how to care for the whole student has evolved as a result of experience and student demographic shifts that occurred within higher

education over time. As these philosophical ideals evolved, the focus on student development theories allowed student affairs practitioners to understand how students develop (or mature) and how their development influences their ability to learn within the higher education environment. It was the 1994 publication, *The Student Learning Imperative: Implications for student affairs*, that first explicitly acknowledged that "the concepts of 'learning', 'personal development', and 'student development' are inextricably intertwined and inseparable" (American College Personnel Association [ACPA] 1994:3). This philosophical document highlighted the synergistic relation between what students learn in the classroom and what they learn outside the classroom; therefore, acknowledging that learning takes place as a result of interactions between students and the multiple environments in which they exist, including individuals such as academic and support staff, and peers. The clarion call that this document put forth was that student affairs has the responsibility to design and manage educationally purposeful activities that promote student learning.

In 1998 the joint report *Powerful Partnerships: A Shared Responsibility for Learning* (AAHE, ACPA & NASPA 1998) followed up with the ideals that collaboration between student affairs and academic staff would further our 'collective wisdom' to meet the challenges that our students will face in a diverse world. Later, the book *Learning Reconsidered: A Campus-wide Focus on the Student Experience* (Keeling 2004) further echoed that calling for educationally purposeful activities within student affairs. Understanding that student learning is the primary focus of all divisions within a higher education institution is only the first step in enacting this vision. For many years, higher education, as an enterprise, understood that learning was the desired outcome of formal education, but there was less focus on the process of how this learning took place. In the United States, multiple groups from accrediting bodies to individual institutions, began requiring that clear learning objectives for students be explicitly communicated through syllabi and programme objectives. This required that both academic and support staff within higher education understand the process of how students learn and how we know they are learning the material to promote the desired outcomes.

Despite the information available to student affairs practitioners in the United States about how to influence student learning, there continue to be barriers to fulfilling the vision of student success through intentional educational programmes. There are four common ways that practitioners may unknowingly present barriers for student engagement:

- Rather than holding students to high expectations to promote student success, student affairs practitioners may overemphasise the support element and not

provide the level of challenge (dissonance) needed to encourage critical thinking and development (Whitt 2005).

- At many institutions, the types of programmes emphasised in orientation and other departments continued to be more focused on students' social lives rather than on educationally purposeful activities.
- When requesting additional funding for student affairs programmes, the language used to justify the funds continues to be primarily focused on support rather than on assessment of how programmes promote student learning through engagement.
- By constantly comparing the student affairs division to the academic affairs functions, practitioners miss the opportunity to articulate their own unique contributions to the student learning process.

While other countries may see student affairs in the United States as a well-established and recognised profession, they may mistake the level of professional training required as providing equal respect with academic affairs within institutions of higher education. The reality is that despite the advances in theoretical foundations (e.g. Schuh, Jones & Torres 2016), professional competencies (ACPA & NASPA 2015), and programme standards (Council for the Advancement of Standards in Higher Education [CAS] 2015), student affairs continues to take a back seat within the primary academic mission of many higher education institutions. To better integrate student affairs into the academic mission requires that the work of practitioners be framed differently to focus on student learning as the primary role for all out of class programmes (ACPA 1994). Regardless of the historical background and professional training available to student affairs practitioners in the United States, there continues to be a need to explain the learning that occurs out of the classroom. Whether it is in the United States or another country, those of us who believe in the powerful nature of the learning environment outside the classroom must continue to work on explaining how we contribute to student learning through engagement.

STUDENT AFFAIRS IN THE SOUTH AFRICAN CONTEXT

Mandew argues that "student affairs in South Africa is arguably as old as the university and has largely played a supportive role that has not always demanded critical, rigorous and intellectual reflection on practice and mission" (Mandew 2014:56). The critique offered by Mandew alludes to the less visible and less impactful role that student affairs has played in South Africa.

Unlike a strong movement towards framing student affairs around student learning, such as has been happening in many parts of the United States, student affairs in South Africa has not made the shift in focus from basic support to student learning.

In fact, the development of student affairs as a key contributor to student success, development and support has only recently been recognised. As the most direct link between student leaders and institutions, student affairs units have had to play a strong political role as mediators during South Africa's pre-democratic apartheid era. This role intensified during the student anti-apartheid uprisings during the 1980s as pressure to control students increased (Bodibe 2009; Schreiber 2014b). The mediating role between students and institutions these units have come to be known by, as well as the diversity of professional qualifications making up the staff component of student affairs fuel long-standing stereotypes such as "being the fire brigade that is called upon to extinguish or at least dampen student protest, with too little appreciation of the overall critical work being done consistently year in and year out" (MacMaster 2014:30). Moreover, Speckman and Mandew (2014. P. x) bemoan the "sad realization that ... there has been little to no student affairs literature coming from South Africa". Schreiber reveals that establishing student affairs as "a discipline and profession" is among the challenges faced by student affairs in developing countries. She further argues that these countries need to "engage in local theory and critically engage with established theoretical frameworks", including the need to articulate a coherent and "normative meta-framework that accommodates multiple indigenous realities which need to flourish in a global context" (Schreiber 2014a:21).

These factors contributed to a sense of a 'lack of identity' of student affairs for many years – up until a strong national focus from the early 2000s on widening access and promoting student success, which placed student affairs divisions in key roles for support and development. This also prompted a movement to professionalise student affairs in South Africa. The *Journal of Student Affairs in Africa* (JSAA), launched in 2013, provided a much-needed platform for student affairs scholarship to develop, and postgraduate qualifications aimed at student development were introduced at two universities. In 2012, the Southern African Federation for Student Affairs and Services (SAFSAS) was established to collaborate on strategies to enhance student development and support. SAFSAS serves as an umbrella body to the following professional bodies:

- South African Association of Senior Student Affairs Professionals (SAASSAP);
- Southern African Association for Counselling and Development in Higher Education (SAACDHE);
- National Association of Student Development Practitioners (NASDEV);
- South African Association of Campus Health Services (SAACHS);
- Association of College and University Housing Officers – International (ACUHO-I);
- Higher and Further Education Disability Services Association (HEDSA); and

- Financial Aid Practitioners of South Africa (FAPSA).

The SAFSAS mandate reads:

> As professionals responsible for the administration and provision of Student Affairs and Services, focussing primarily on co-curricular activities within institutions of higher learning, we are committed to identify with practices that will move our professions forward. We believe in serving students holistically, so that they become well-rounded and thoroughly grounded graduates and responsible citizens. We are committed to the principles of good governance, service delivery and leadership in student affairs and services, including:
>
> - Engaging students in active learning.
> - Helping students to develop coherent values and ethical standards.
> - Setting and communicating high expectations for student learning.
> - Using systematic inquiry to improve student and institutional performance.
> - Using resources effectively to achieve institutional missions and goals.
> - Forging educational partnerships that advance student learning.
> - Building supportive and inclusive communities (SAFSAS n.d.).

The mandate makes it clear that SAFSAS aims to steer student affairs practices towards facilitating student learning, while also contributing to developing national and institutional graduate attributes and providing a 'safe space' for students to feel supported. The strong inclusion of student learning as a priority for student affairs has up to now been neglected for the historic reasons mentioned earlier, but also because of the parallel development of academic development (AD) within different institutional support divisions or faculties.

There are several observations one can make about student learning as a focus in higher education. 'Student learning', when defined in a narrow way, is confined to the formal classroom and allocated to the territory of teaching staff (academics). All the other role players within higher education are seen as being on the periphery of student learning, or irrelevant. This is well illustrated by the history of AD. Lorraine Stefani describes the challenge academic development has faced over the more than 40 years of its existence. She articulates the gains and the advances made within the area, including the fact that AD "activities and centres are now commonplace in most countries", and she puts South Africa in that list (of countries). She further indicates that AD has "moved from being a highly marginal practice to a dominant discourse framing the ways university teaching is understood" (Stefani 2011:3).

This positioning of moving to a dominant discourse has not come easy even though the impact is visible. According to the Council on Higher Education (CHE), in South Africa, one of the biggest achievements is how AD has led to policy initiatives around the funding of foundation programmes and influenced the need for national curriculum reform considerations (CHE 2013). Even with these achievements, AD and its practitioners have not won the struggle of being marginalised completely; it is a matter of '*aluta continua*' ('the struggle continues'). Stefani continues to indicate that one area that is still problematic for AD is the lack of coherence in the purpose of AD and the issues "are compounded by the lack of an agreed framework for evaluation of the impact, value and added effectiveness of academic development" (Stefani 2011:4).

As Mandew (2014) asserts, AD, as a movement in South Africa, offers several lessons to student affairs. The challenges are becoming clearer and student affairs staff need better framing and recognised ways of assessing and evaluating impact, value and effectiveness. In exploring evaluation and assessment approaches with the AD movement, Stefani identifies at least two paradigms that are in operation: one focused on "continuous improvement of student learning outcomes and student experience", and the other that focuses on the accountability "regime" (Stefani 2011:12).

Student affairs in the South African context is at a far more challenging position than academic development when it comes to student learning. The narrow definition of student learning referred to earlier creates some distance between student learning and student affairs. This is because student affairs is seen as focusing on out of class activities, more specifically in the sense of extra-curricular activities, and only grounded in providing support to students. Because AD is an established field in South Africa, it becomes an extra factor that adds to the distance between student affairs and student learning (in its narrow sense). Numerous activities that student affairs practitioners could be doing or overseeing in relation to student learning are allocated to or taken on by AD. These include activities such as taking responsibility for mentoring and tutor programmes (recruitment, training and evaluation of tutors). These are the responsibility of AD centres and divisions. Other examples are first-year orientation programmes and the first-year experience (FYE) suite of offerings. It is striking that in in most South African universities where such practices exist, first-year orientation is (still) with student affairs, while the FYE (and its offerings) is with AD centres.

This is in stark contrast with the United States context, which does not have organised AD in the way that Mandew (2014) or Stefani (2011) describe and characterise. Student affairs in the United States is at a far better position to lessen the distance that might exist between student affairs and student learning. One might argue that

in the South African context, student affairs must compete in some instances, or collaborate in some way with AD in order to be closer to student learning in terms of being trusted with relevant responsibilities and operations. On top of having to deal with the same challenges as faced by AD, student affairs must compete with AD, but from a weaker position given that it (student affairs) has not yet established itself as a profession and lacks its own theoretical and evaluation frameworks. Whereas it is relevant in the United States context to make the 'clarion call' that student affairs has the responsibility to design and manage educationally purposeful activities that promote student learning, it is somehow complicated to make the same call within the South African context.

Another important factor guiding the focus of student affairs in South Africa is the state of vulnerability of students entering higher education. This in terms of socio-economic circumstances and/or academic underpreparedness (because of poor quality schooling, or having to adapt to social and cultural circumstances very different from home). A national study on quality enhancement of public universities asked institutions to list the main dimensions impacting students' lives and their ability to succeed at university. The dimensions listed (CHE 2015:22) are:

1. understanding of subject matter;
2. competence in various academic literacies, including academic reading and writing, quantitative literacy, information literacy and computer literacy;
3. use of effective study skills;
4. sense of vocation and identification with the chosen career;
5. physical health;
6. psycho-social-emotional well-being;
7. facilitation in several life skills; and
8. provision of material needs, including funding, accommodation, food and transport.

These dimensions point directly to the socio-economic pressures students face, as well as the large transitional gap between poor-quality schooling and university studies. The significant amount of support most students in South Africa require guides the development of student affairs towards an equal prioritisation of both student support as well as facilitating learning and development. Moreover, a major challenge for institutions, and particularly student affairs, is the persistence of structural inequity. Students are often blamed for disadvantages beyond their control, such as receiving poor-quality schooling, which impacts on the selection of subjects as well as their performance in these subjects when entering higher education. These

disadvantages are often perpetuated through insensitive institutional cultures and a lack of understanding around the academic and non-academic challenges these students face daily (Madiba 2014).

From the well-established knowledge base the United States created over the years, they appear to have much to offer in terms of student affairs as a profession because of its long history and rich literature. An organisation like the National Association of Student Affairs Personnel Administrators (NASPA) founded in 1919 boasts of 15 000 members and 2 100 institutions across 50 states and 25 countries (NASPA, n.d.). However, as pointed out earlier in this chapter, even with such elaborate developments, student affairs in the United States continues to take a back seat within the primary academic mission of many higher education institutions. It is evident that the role of student affairs here in South Africa and abroad needs framing and a better focus. One such way is to build from what we can learn from large data sets that are available from relevant research projects.

USING STUDENT ENGAGEMENT DATA TO INFORM STUDENT AFFAIRS PRACTICE

Research has illustrated that the time and energy students devote to educationally purposeful activities is the single best predictor of their learning and personal development (Kuh, Kinzie, Schuh & Whitt 2010). By considering student engagement, institutions can begin to gauge the time and effort students put into their academic work, as well as outside of the classroom activities, and determine if institutional resources and organisational programmes induce the level of engagement needed to promote student success (Kuh *et al* 2010). McCormick (2009) as well as Strydom, Kuh and Mentz (2010) argue that even though student engagement research is often used internationally for external accountability purposes, the real value of engagement data lies in how it contributes to internal self-reflection of those responsible for undergraduate education and inter-institutional benchmarking. Strydom and Mentz (2013) interpret this as contributing to a culture of evidence, which helps institutions evaluate their own strengths and weaknesses regarding student success.

Data from the South African Survey of Student Engagement (SASSE) could be used to facilitate such reflection within South African student affairs divisions. In using the results, these divisions can better understand to what extent their intentions to assist students to persist and succeed are realised. There are at least two mechanisms that can help to analyse and review the data to help student affairs programmes.

The main mechanism available to institutions that use the survey of student engagement is the ability to disaggregate the data in two critical ways. First, the

ability to look at the data by those who use or participate in the programmes allows practitioners to determine the value of their programmes through student engagement indicators. This is accomplished by using the student engagement indicators as the outcome variable and comparing those that use or participate in programmes with those that do not. If participating in a programme or using a particular service does not seem to influence the appropriate engagement indicators in a positive manner, then adjustments and improvements should be made to that programme or service based on further enquiry as to why the programme did not contribute to engagement.

The second data elements that should be carefully analysed with the student engagement results are to disaggregate by race, gender, and other relevant factors impacting on students' experiences in higher education. Knowing how different types of students respond to the programmes and services is critical to serving all students within our institutions. Analyses in the United States illustrate that there are high-impact practices (HIPs) that students can engage in that further student success. These practices tend to have greater self-reported gains for underrepresented students within higher education (Finley & McNair 2013). HIPs work to engage students because they tend to promote high levels of student-staff interaction, reflection on the learning process, and provide both challenge and support for the learning process. These types of activities can promote greater success for underrepresented students because they allow first-generation university students to have greater interaction and support to learn how to be good students. Consistent with Kuh's (2011) ideals about teaching students how to use resources, many students who do not have the social knowledge about resources can learn through educationally purposeful activities that promote interactions with academic and support staff, which in turn could impact their own learning and success. Madiba (2014) rightfully suggests that students are blamed for disadvantages beyond their control. HIPs can provide a strategy for institutions to help disadvantaged students gain the social capital needed to succeed in postsecondary education.

Within the United States, the HIPs that work for improvement of student success include first-year seminars, writing-intensive courses, collaborative learning assignments, internships, service learning, undergraduate research with a lecturer, study abroad, learning communities, and capstone courses or projects (Kuh, O'Donnell & Reed 2013). Chapter 5 in this book expands more on developing HIPs in the South African context. The inclusion of 11 identified practices in the 2015 SASSE administration provides a conversation starting point about developing and implementing contextualised HIPs, however, linking these practices to student

affairs is too early. The data presented in this chapter, therefore, focuses on how student engagement data can help student affairs divisions gauge where they need to intervene in order to help students develop and learn.

WHAT DOES STUDENT ENGAGEMENT DATA TELL US ABOUT STUDENTS?

The measurement of student engagement in South Africa is a far newer practice than in the United States. The measurement was piloted in 2007 at seven South African institutions and has been subject to several processes of contextualisation. For the purposes of this chapter, data from the 2014 administration of the SASSE are used. The sample consists of 2 935 first-year students and 9 291 senior students. Males represented 47% of the sample and females 53%. Two-thirds of the sample consisted of black Africans, followed by white (14%), and 14% making up the other races. First-generation students represented just over 70% of the sample.

To illustrate how student engagement data could contribute to student affairs' knowledge about student learning and development, we draw from SASSE items enquiring about the extent that institutions emphasise certain behaviours as well as the quality of their interactions with support divisions. These include:

- Indicate the quality of your interactions with peer learning support (tutors, mentors, facilitators), and student support services (e.g. counselling, health, disability, career).
- How much does your institution emphasise the following?
  - Spending significant amounts of time studying and on academic work.
  - Providing support to help students succeed academically.
  - Providing support for your overall well-being (recreation, health care, counselling, etc.).
  - Attending events that address important economic, political, or societal issues.

The items were analysed to determine differences in scores reported for subgroups of gender, race, whether they live on or off campus, and generation status through independent t-tests and one-way analyses of variance where appropriate. Each analysis reports on the significance of difference between group responses as well as an indication of the practical significance through a calculation of the effect size (Cohen 1988). Figures 7.1 to 7.3 display the group means (out of a maximum of 4).

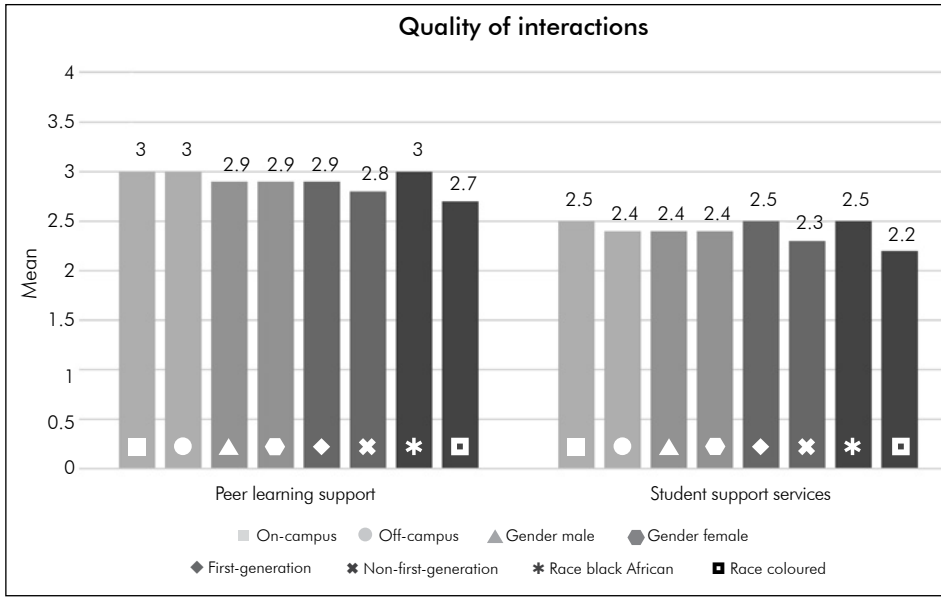

FIGURE 7.1 Quality of interactions with peer learning support and student support services

In general, it seems as if students (N=12 226) feel their interaction with peer learning support (tutors, facilitators, mentors) and student support staff are of medium to relatively low quality (*M*=2.9) and (*M*=2.4) respectively. Independent t-tests show that there is no significant difference in how males and females rate the quality of experiences with peer learning support (*p*=.325) or student support services (*p*=.079). Statistically significant differences were found between the perceptions of quality interactions of students who live on campus and those who live off campus, with on-campus students rating the quality of interactions with peer learning support (*p*=.000; *d*=.08) as well as student support services (p=.000; d=.06) higher, although both findings reveal very small practical significance. First-generation students rate both these interactions of higher-quality (peer learning support: *p*=.000; *d*=.14; student support services: *p*=.000; *d*=.21), also with small to moderate practical significance.

Students are asked to identify which racial group they identify with most, with options including "Asian", "black African", "coloured", "Indian", "mixed race", "other", "white", and "I prefer not to answer." For comparison purposes Figure 7.1 includes the groups indicating highest (black African) and lowest (coloured) mean scores. A one-way analysis of variance shows significant (*p*<.05) differences between all racial groups, with black African students reporting the highest quality of interactions with peer learning support (*M*=3), followed by Indian students (*M*=2.9), white

students (M=2.8), and coloured students (M=2.7). A similar pattern is seen regarding students' perception of the quality of their interactions with support services, where black African students report a slightly above average score (M=2.5), while white and Indian students report a mean of 2.3, followed by coloured students (M=2.2). The practical significance of these differences between the group with the highest means (black African) and the lowest means (coloured) is moderate (d=.32) for both the quality of interaction with peer learning support, and student staff interaction (d=.27).

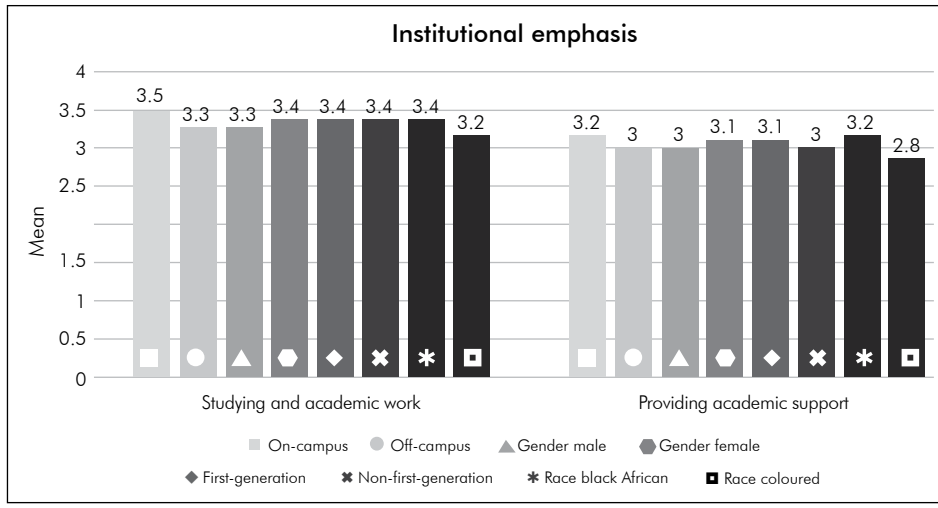

FIGURE 7.2 Institutional emphasis on studying and academic work, and providing academic support

Figure 7.2 shows us that in general, students feel that their institutions place a lot of emphasis on studying and academic work, as well as providing academic support (M=3.4 and M=3 respectively). Significant differences, although of small to moderate practical significance, are found between on-campus and off-campus students' indications of institutional emphasis on academic work (p=.000; d=.15) and support (p=.000; d=.19), with on-campus students indicating more emphasis on these factors from their respective institutions. Similarly, first-generation students significantly experienced more academic emphasis (p=.001; d=.02) and support (p=.000; d=.17) than non-first-generation students; and women experienced more academic emphasis (p=.000; d=.14) and support (p=.000; d=.06) than males. These comparisons also revealed moderate to small practical significance in the differences between groups. Racially, black African students reported the highest mean for institutional emphasis on studying and academic work (M=3.4), which

differed significantly from all other racial groups, particularly the coloured group, (p=.000; d=.28) with a moderate practical significance.

Figure 7.3 shows that although a statistically significant difference was found between male and female perceptions of institutional emphasis on individual well-being as well as emphasis on attending important events, it proved to be of very little practical significance (p=.000; d=.08 respectively).

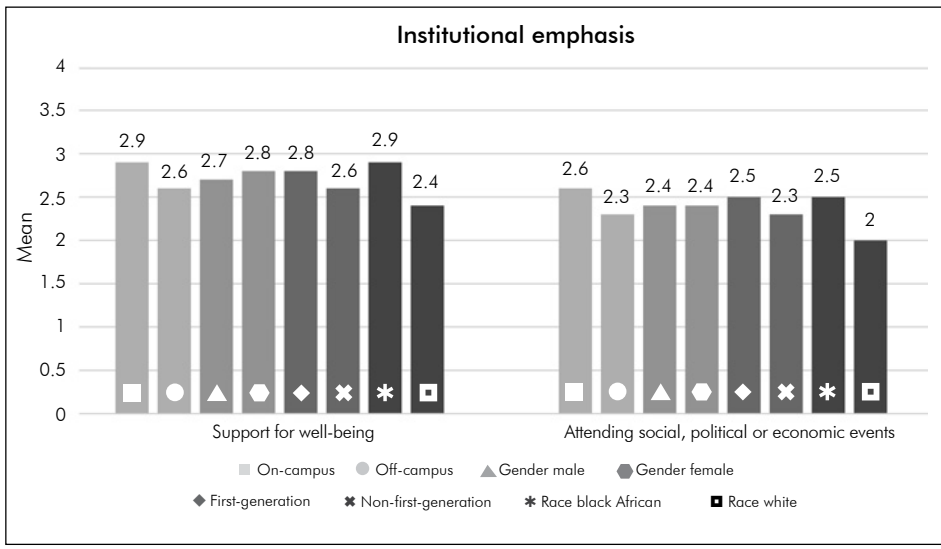

FIGURE 7.3 Institutional emphasis on providing support for overall well-being, and attending events that address important social, political or economic events

First-generation students indicated significantly higher means related to how they perceive institutional emphasis on well-being and attending important social, political or economic events (p=.000; d=.16 respectively), however, with a relatively low practical significance. On-campus students report higher means of institutional emphasis on their general well-being (p=.000; d=.27), with moderate practical significance. Similarly, on-campus students feel that their institutions emphasise attending social, political or economic events more than off-campus students (p=.000; d=.28), also with moderate practical significance. Black African students, who indicated the highest mean score for institutional emphasis on general well-being, differed significantly from all other racial groups – and in particular the white group, who scored the lowest mean (p=.000; d=.52). This difference has a high practical significance. A similar finding is seen between the black African group scoring the highest mean for institutional emphasis on attending social, political or economic events, and the white group with the lowest mean (p=.000; d=.56).

DISCUSSION

The examples of SASSE items explored here help us understand who our students are and how they are experiencing higher education. In general, the reported quality of interactions with student support staff was very low ($M=2.4$). While the general indication of quality interactions with peer learning support looks slightly better ($M=2.9$), there is still much room for improvement. While first-generation students show a greater indication of quality interactions with support staff, as well as feeling more supported academically, we need to ask whether we are doing enough to provide academic and non-academic guidance, support and opportunities for the development of this vulnerable group. On-campus students show higher quality relationships with peer learning support and student services staff, as well as feeling more institutional emphasis on academic support, general well-being, and even attending important events. In other words, the ease of reaching on-campus students perhaps promotes more engagement. One could assume that the ease of access and proximity to classes and support services could impact on these factors, namely, they spend more time on campus. However, data such as this pave the way for further inquiry into these differences. For example, if further studies find that on-campus students have a stronger sense of belonging, or make use of informal mentors in the residence structure, student affairs divisions could invest in innovative interventions targeting the development of these factors amongst off-campus students. Commuter programmes focused specifically on the off-campus population promote both a sense of community and engagement for these students. Finally, race continues to be a factor impacting students' experiences. While it is good to see the positive responses from black African students in all these items, it is quite worrying to see how students identifying with the coloured group feel excluded, with low quality interactions with peer learners as well as support staff, and academic support. Similarly, and with high practical significance, white students feel that their institutions do not place much emphasis on their general well-being, nor do they encourage attendance of social, political, and economic events.

It should be noted that there is inconsistency between the student ratings of institutional emphasis and students' perception of the quality of interaction. While institutional emphasis was rated relatively high, the quality of interaction was not consistent. This should lead student affairs practitioners to carefully consider 'how' the programme is delivered, not just putting the programme in place. For interventions, including HIPs, to work effectively they must be done well. Student affairs programmes and services can provide quality assurance using SASSE data to ensure that programmes that engage students in learning activities are done well.

These analyses are just a few examples taken from support-based items of the SASSE to illustrate how data can help us to rethink interventions and where to focus our attention to help students succeed. Other items, such as those related to HIPs, are particularly important to gauge where co-curricular, scaled interventions could be implemented to promote student learning and development. Using data to document the influences that student affairs programmes and services have on student engagement is a strong first step in providing practitioners with the necessary language to articulate the purpose of student affairs. It is critical to understand that changing perceptions is more difficult than just providing data. To change the culture within our higher education institutions will require data and our 'reculturing' of student affairs divisions to understand that the student success mission is the most important goal we should all be working toward in our day-to-day activities. The available SASSE data offer useful benchmarks across a set of participating intuitions and these serve as national benchmarks. For student affairs specifically, the development and measurement of HIPs, as well as items related to students' sense of support they receive from their institutions, and how they interact with this environment could provide meaningful, relevant and actionable data to guide co-curricular interventions.

THE WAY FORWARD

The urgency to help students succeed through higher education places significant pressure on student affairs in South Africa to hasten the project of establishing itself as a profession and finding theoretical frameworks that are critical and relevant to the local and global context within which it is located. Student affairs practitioners are often called upon to be "interpreters and advocates of student life and student issues", which coincides with calls for student affairs to be more aligned with social justice goals, as well as being integrated into all facets of student learning (MacMaster 2014; Schreiber 2014b).

In the South African context, it is argued that the quality of 'graduatedness', like all the other student success indicators, is as much a matter of the classroom as it is of organised student life outside the classroom (Madiba 2014). The notion of student success is, therefore, not limited to what happens within the formal classroom. Student engagement is firstly defined as the amount of time and effort students spend on academic activities and other activities that lead to the experiences and outcomes that constitute student success. However, a second component to engagement is the way that institutions allocate resources and organise learning opportunities and services to induce students to participate in and benefit from such

activities (Kuh *et al* 2010). Because student engagement views student success as much broader than the classroom, it creates the space for intentional and collective effort by all role-players to optimise students' chances of success. In fact, if student success, constituting learning and the development of graduate attributes make up the intended outcomes of higher education, we would argue that curriculum learning, academic development and student affairs need to combine forces and share expertise and resources to optimise students' chances of success, as illustrated in Figure 7.4.

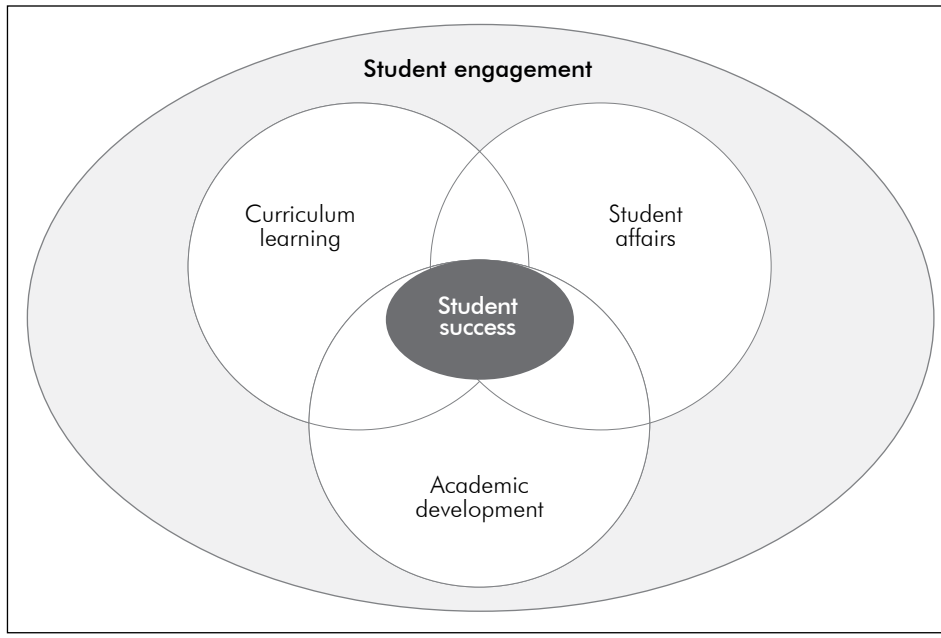

FIGURE 7.4 Promoting intentional collaboration within a student engagement space

We also suggest that student engagement could provide a framework and evidentiary base that give recognition to the contribution and role of lecturers, academic developers, student affairs professionals and students in creating environments that promote student success. South African student affairs can create innovative links between curricular and co-curricular learning, academic development and the holistic development needs of students. Through these partnerships, the knowledge base for each role-player in furthering the institutional mission to help students be successful could be broadened. For example, important perspectives that student affairs could provide on engagement and other data sources could be to assist institutions in:

- understanding the readiness of students to be engaged – connecting the developmental processes of students and institutional climate (socio-political context) with the ability of students to engage in the learning process;
- facilitating environments outside the classroom that can promote engagement; and
- providing greater engagement in academic learning by connecting the in-class with the out-of-class learning processes.

Kuh (2011:259-267) also describes seven conditions that illustrate how student affairs can influence student success:

1. Position student success in the mission of student affairs and as an institutional priority.
2. Facilitate student agency by teaching new students how to make good use of institutional resources.
3. Collaborate with various institutional stakeholders to scale programmes or practices that have an impact.
4. Establish and monitor early warning systems and safety nets to support students when they need help.
5. Support academics to have a better understanding of the socio-political context of students so they are able to create a sense of community in the classroom and by connecting experiences inside and outside the classroom so that they are mutually reinforcing of holistic development.
6. Focus assessment and improvement efforts on what matters to student success.
7. Refocus the student affairs division to intentional, evidence driven facilitation of student success.

Even though the identity formation of student affairs in the United States and in South Africa differs quite a bit, both recognise the important role these divisions could and should play in helping students learn and develop beyond the classroom. We contend that with newly established communication platforms, as well as datasets, such as the SASSE, student affairs divisions in South Africa can start building on evidence-based interventions that emphasise the importance of co-curricular support, development and learning for student success and holistic development.

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8 THE ROLE OF INSTITUTIONAL LEADERSHIP IN ADVANCING STUDENT ENGAGEMENT

George Kuh & Paul Lingenfelter

He who thinks he is leading and has no one following him is only taking a walk – Malawian proverb

INTRODUCTION

The world abounds with contestable assertions and equivocal data about the education policies and programmes that will prepare individuals to succeed and advance the greater social good. With this in mind, two truisms hold for postsecondary education today in every corner of the globe.

First, the demands of life, work and civic responsibility require all graduates, no matter what their educational objective, to attain a certain level of proficiency with 21st century learning knowledge, skills, and dispositions. There are various descriptions of these outcomes including the essential learning outcomes (ELOs; see Figure 8.1), referred to as graduate attributes in other higher education systems, promulgated by the Association of American Colleges and Universities (AAC&U) (AAC&U 2008), the degree qualifications profile (DQP; see Figure 8.2), and the National Framework of Qualifications (NFQ) in Ireland (Quality and Qualifications Ireland [QQI] n.d.). While the descriptions of the outcomes featured in these statements may differ, they all generally agree that graduates should possess the major proficiency domains such as critical and analytical thinking, clarity and precision in writing and oral presentation, and a demonstrated capacity to apply and transfer what they know and can do to different situations.

The implication of these and other outcome taxonomies is that simply holding a postsecondary certificate or a degree no longer automatically insures that a graduate can live an economically self-sufficient, satisfying life. Rather, students must acquire knowledge and skills that will add value to their employers and communities, and they

must continue to learn in order to meet the demands of a rapidly changing world. If a student obtains a degree without acquiring these competencies, the degree won't be worth much. High-quality learning is no longer optional; it is required.

The second truism is that for students to acquire the essential learning outcomes alluded to here, postsecondary institutions must be more intentional about helping students develop these capabilities and more analytical, self-critical, and adaptive in improving the effectiveness of teaching and learning. They must use engaging pedagogies that require students to invest substantial time and effort to acquire relevant knowledge and provide opportunities to practice applying what they have learned to the range of unscripted, messy problems they will encounter. The phrase

The Essential Learning Outcomes

Beginning in school, and continuing at successively higher levels across their college studies, students should prepare for twenty-first-century challenges by gaining:

- *Knowledge of Human Cultures and the Physical and Natural World*
  - Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

  Focused by engagement with big questions, both contemporary and enduring
- *Intellectual and Practical Skills, including*
  - *Inquiry and analysis*
  - *Critical and creative thinking*
  - *Written and oral communication*
  - *Quantitative literacy*
  - *Information literacy*
  - *Teamwork and problem solving*

  Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance
- *Personal and Social Responsibility, including*
  - *Civic knowledge and engagement—local and global*
  - *Intercultural knowledge and competence*
  - *Ethical reasoning and action*
  - *Foundations and skills for lifelong learning*

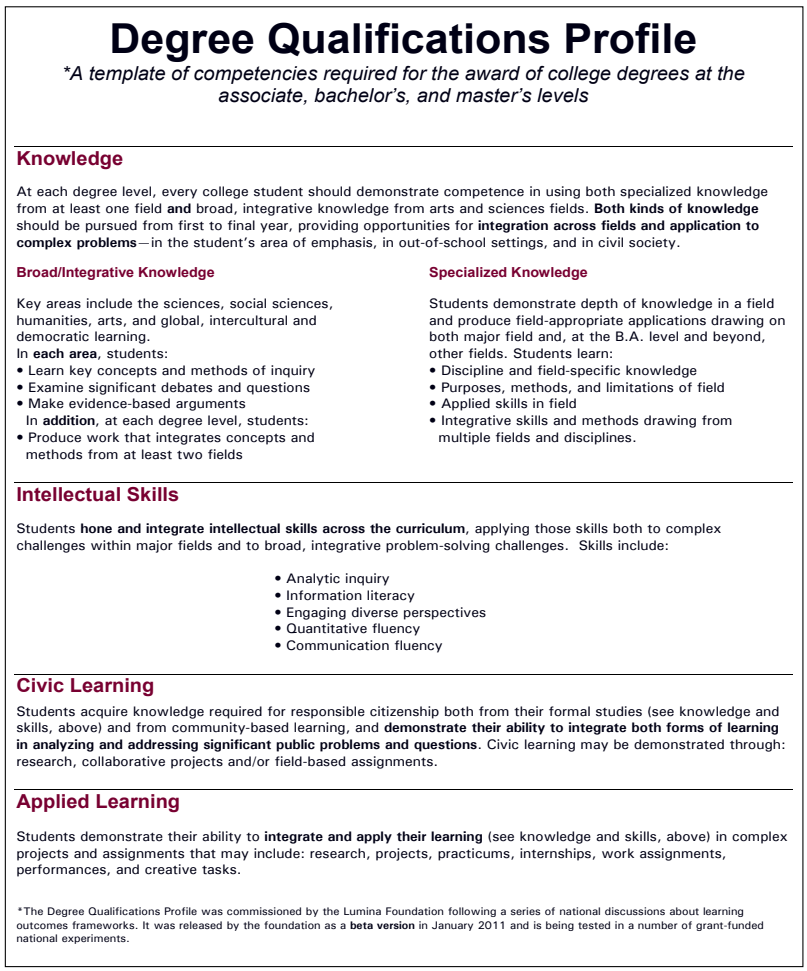
  Anchored through active involvement with diverse communities and real-world challenges
- *Integrative and Applied Learning, including*
  - *Synthesis and advanced accomplishment across general and specialized studies*

  Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems

FIGURE 8.1 Essential learning outcomes (AAC&U 2008)

commonly used to refer to the set of behaviours that are precursors to these outcomes is "student engagement" (Kuh 2001, 2003, 2009).

The engagement premise is straightforward. The more students study a subject, the more they know about it. Similarly, the more students practice and get feedback from academics and support staff members on their speaking, writing and collaborative problem-solving, the deeper they understand what they are learning and the more adept they become at communicating effectively, managing complexity and ambiguity, and working with people from different backgrounds or who have different views. Participating in a variety of educationally productive activities, including what are known as high-impact practices (Kuh 2008), also contributes to the foundation of skills and dispositions needed to live a productive, satisfying life after university



Degree Qualifications Profile

**A template of competencies required for the award of college degrees at the associate, bachelor's, and master's levels*

Knowledge

At each degree level, every college student should demonstrate competence in using both specialized knowledge from at least one field **and** broad, integrative knowledge from arts and sciences fields. **Both kinds of knowledge** should be pursued from first to final year, providing opportunities for **integration across fields and application to complex problems**—in the student's area of emphasis, in out-of-school settings, and in civil society.

Broad/Integrative Knowledge

Key areas include the sciences, social sciences, humanities, arts, and global, intercultural and democratic learning.
In **each area**, students:
- Learn key concepts and methods of inquiry
- Examine significant debates and questions
- Make evidence-based arguments

In **addition**, at each degree level, students:
- Produce work that integrates concepts and methods from at least two fields

Specialized Knowledge

Students demonstrate depth of knowledge in a field and produce field-appropriate applications drawing on both major field and, at the B.A. level and beyond, other fields. Students learn:
- Discipline and field-specific knowledge
- Purposes, methods, and limitations of field
- Applied skills in field
- Integrative skills and methods drawing from multiple fields and disciplines.

Intellectual Skills

Students **hone and integrate intellectual skills across the curriculum**, applying those skills both to complex challenges within major fields and to broad, integrative problem-solving challenges. Skills include:

- Analytic inquiry
- Information literacy
- Engaging diverse perspectives
- Quantitative fluency
- Communication fluency

Civic Learning

Students acquire knowledge required for responsible citizenship both from their formal studies (see knowledge and skills, above) and from community-based learning, and **demonstrate their ability to integrate both forms of learning in analyzing and addressing significant public problems and questions**. Civic learning may be demonstrated through: research, collaborative projects and/or field-based assignments.

Applied Learning

Students demonstrate their ability to **integrate and apply their learning** (see knowledge and skills, above) in complex projects and assignments that may include: research, projects, practicums, internships, work assignments, performances, and creative tasks.

*The Degree Qualifications Profile was commissioned by the Lumina Foundation following a series of national discussions about learning outcomes frameworks. It was released by the foundation as a **beta version** in January 2011 and is being tested in a number of grant-funded national experiments.

FIGURE 8.2 Degree qualifications profile (QQI n.d)

study. In this sense, engagement helps students to develop a capacity for deep, integrative learning, which is the gateway to a lifetime of continuous learning and personal development (Kuh 2003; Kuh, O'Donnell & Reed 2013).

This chapter addresses the key role of postsecondary leaders and managers at all levels in using information about student engagement to help promote and realise higher levels of student performance and institutional effectiveness. First, the chapter describes how the conceptions of the role of educational leadership and management have changed over past decades. This backdrop is important because it alters the nature of the responsibilities leaders have to their institution and students. The chapter then considers what leaders and managers can do to enact student engagement as an institution-wide strategy to induce students to take part in activities inside and outside the classroom that will help them attain the essential 21st century learning outcomes.

While postsecondary systems around the world differ in certain respects, our experience is that effective approaches to using student engagement data to improve teaching and learning are near-universal and can yield positive results when adapted appropriately to an institution's context and culture. In this regard, while many of the examples used here are from colleges and universities in the United States, they can be adapted to institutions in other countries as well.

THE "KNOWLEDGE SOCIETY" HAS RAISED THE BAR FOR EFFECTIVE LEADERSHIP

In the 1960s, Fritz Machlup, Peter Drucker, and others pointed to the emergence of a "knowledge society", – a world in which information and knowledge will increasingly become economically valuable. Their prescient observation was that knowledge and information were becoming comparatively more important than the historical sources of economic advantage, such as the land ownership, natural resources, efficient transportation, and even access to capital. In the half century since, vast changes in the world economy have been more dramatic than anyone might have imagined in the 1960s. In the last quarter of the 20th century, workers in the United States with only a high-school education watched their wages steadily fall and their unemployment rates grow. In 1964, four-fifths of jobs in the United States were held by people with a high-school education or less; by 2008, this educational group held only two-fifths (41%) of United States jobs. More than 30% of jobs were held by people with a BA or higher degree. In 2016, the three largest companies in the world by market capitalisation were based on information technology, Apple, Alphabet (Google), and Microsoft. Two more companies in the top ten, Facebook and Amazon, are internet based.

These striking changes also have occurred elsewhere in the world. In the 23 nations that lead the world in postsecondary educational attainment, more than 40% of the adult population aged 25 to 34 have a postsecondary credential. In the top six nations, more than half the population aged 25 to 34 have a postsecondary credential (OECD 2015). The importance of expanding higher education systems in African countries to generate knowledge that could address issues impacting the development of these countries is particularly stressed by the World Bank (Experton & Fevre 2010) and discussions around the United Nations' post-2015 development agenda (United Nations Development Programme [UNDP] n.d.). The point is, even among countries that differ vastly in their developmental states, the importance of higher education as a vehicle towards a better life for all is constant.

In his book, *The World is Flat: A Brief History of the Twenty-first Century*, Thomas Friedman (2005) described the forces that are spreading knowledge-based economic activity over the globe, and moving lower-skilled, lower-paying jobs to countries with lower wages and fewer knowledge-based workers. Although the off-shoring trend provides job opportunities in less-developed countries, the gains are temporary. As the quality of life improves in these countries, labour becomes more expensive, and low skilled jobs are eliminated by technology or move to still poorer countries. The long-term prognosis for low-skilled, decent paying work is very poor (Carnevale, Smith & Strohl 2010).

Thanks to technological advances, learners now can hold a computer (cell and smartphones) in their hand. This has accelerated and deepened the impact of the knowledge society and dramatically raised the stakes for students. Simply acquiring information is no longer an advanced skill. A 21st century education requires knowing how to apply information to innovate and solve complex, unanticipated problems. It is now much more difficult for a person without higher levels of knowledge and skill to have an economically self-sufficient, satisfying life. As a result, increasing proportions of young people around the globe are pursuing some form of postsecondary education, and many older adults are returning to school in order to improve their economic prospects.

The knowledge society has also raised the stakes for educators and those that lead and manage them. For example, in the 1950s and 1960s in the United States, plenty of students failed, but one never heard about "failing schools". Today a Google search on the term "failing schools" produces 119 million results in less than one second. Unlike previous eras, schools now are expected to do more to help their students succeed. High rates of student failure are unacceptable, and it is no longer acceptable (or even possible for most institutions) to achieve success simply

by schooling only the academically talented and highly motivated. This places more pressure on educational leaders to improve institutional effectiveness.

Even the most selective postsecondary institutions have a responsibility to enhance student learning, not simply to recruit brilliant people who can educate each other. Academically gifted, academically average, and capable but academically underprepared students all deserve to have teachers, mentors, and instructional approaches that support, challenge, encourage, and help them realise their full potential to lead satisfying, productive lives.

Being prepared to participate actively in today's knowledge economy is just the beginning. Students also need to understand the nuances of the contexts in which they live and work, learn how to interact effectively with people who think and act differently, meet the obligations of citizenship, and – as noted earlier – become adept at deep integrative learning, the gateway to continuous learning that will enable them to thrive in a rapidly changing world. These outcomes are the responsibilities of all educators. And it is the duty of leaders and managers to help create the circumstances necessary for this essential work.

A NEW SLANT ON WHAT CONSTITUTES QUALITY IN TEACHING AND LEARNING

The additional expectations and responsibilities placed on colleges and universities by the knowledge society demand different approaches to teaching and learning as well as different approaches to institutional leadership. For example, the marks of a successful university rector or president in the 20th century often included more and better qualified applicants for admission as shown by entrance exam scores, greater selectivity reflected by larger numbers of students denied admission, and increased annual giving by alumni and friends. These are all measures of popularity and, to a degree, prestige. Popularity and prestige are not inherently bad, but productivity is better. In today's knowledge society, the most effective institutions add value by helping their graduates acquire the needed knowledge and skills and increasing the proportion of students who fully realise their potential as learners. This means that institutional leaders at all levels must do more than attract and efficiently manage fiscal and human resources; they must also know how to deploy resources to improve student and institutional performance.

In sum, shifts in pedagogical approaches and institutional leadership practices are needed to yield productivity increases in the quality of learning and the rates of academic accomplishment for all. It is beyond the scope of this chapter to delineate all the policies and practices needed to create these outcomes. However, two essential ingredients are essential for transformational improvements in teaching

and learning. The first is to clearly state the institution's desired student learning outcomes. It simply is not possible to develop a meaningful strategy for improving the outcomes of university study without first specifying those outcomes. The second is to systematically obtain actionable student engagement data to identify where student effort is insufficient to attain the desired skills and dispositions and to use these data to guide institutional action. The rest of this chapter considers these two areas.

ENGAGEMENT FOR WHAT? DELINEATING THE INSTITUTION'S INTENDED LEARNING OUTCOMES

In the United States, the majority of postsecondary institutions have published, in some form, statements of their desired learning outcomes for all their undergraduates. Simply put, a student learning outcome (SLO) statement articulates what an institution wants students to get out of their university education. When crafted in understandable, actionable language, student learning outcome statements clearly and specifically express the knowledge, skills, attitudes, proficiencies, and dispositions that are commensurate with the desired degree or certificate.

According to a 2016 policy statement from the National Institute for Learning Outcomes Assessment (NILOA), learning outcome statements are most useful when they represent outcomes valued by academic staff, students, and employers, and provide reference points for student performance for both individual courses and the cumulative effects of a programme of study. In this way, it is possible for students and others to see how the quality of their performance has improved over time. Equally important, student learning outcomes statements should inform educational policies and practices that should be modified to guide improvement and stimulate pedagogical innovations.

Good SLOs feature active, operational verbs to guide the design of assignments that motivate students to acquire and demonstrate the desired outcomes and enable others to verify their achievements. Clear, specific statements describing desired outcomes make it possible for academics to align curriculum and pedagogy with intended proficiencies, which is essential for ensuring that a programme is, indeed, achieving its purposes. Such statements also make it easier for students to understand and appreciate institutional and programme expectations for their performance and how their learning will equip them to handle what they encounter after graduating (Adelman 2015).

Student learning outcome statements can be less helpful and problematic if they are intended primarily to meet compliance demands of external groups instead of helping academic staff achieve their own instructional goals. It might happen

that relatively few academic staff members have experience designing clear, explicit course and programme outcomes and crafting assignments that directly elicit the intended outcomes. Institutional leaders are responsible for creating the conditions in which academic staff are motivated and enabled to acquire these skills.

This kind of collaborative work around engaging, outcome-linked assignments is required because NILOA surveys show that instructor-designed assignments are the primary vehicle through which students demonstrate that they know and can do what the institution or programme specifies. In the United States, such evidence is used far more frequently to inform and guide improvement than standardised tests. To underscore the critical role of assignments, NILOA has conducted a series of 'charrettes' in which academic staff from different fields discuss how to improve their assignments in ways that more accurately align with one or more intended proficiencies (Hutchings, Jankowski & Schultz 2016). Such assignments engage students in ways that induce them to expend more effort leading to higher levels of learning and personal development.

So, what can institutional leaders do to promote higher levels of student engagement that lead to attaining the essential 21st century learning proficiencies and dispositions?

LEADERSHIP TACTICS FOR ENHANCING STUDENT ENGAGEMENT

At high performing higher education institutions, many people in a variety of positions collaborate with common purpose to challenge and support students to perform at high levels in order to meet the demands of the knowledge society (Kuh, Kinzie, Schuh & Whitt 2010). Shared action of this sort requires leadership and coordination from senior academic and student life staff to implement a strategy featuring student engagement as an institutional priority. Most leadership texts and experts advise that key personnel, starting with the chief executive officer (CEO) – rector or president – consistently remind academic staff and others about institutional priorities (e.g. Kuh *et al* 2010; Morrill 2007). Continuous reminders about institutional priorities are important for many reasons. Academic staff and students everywhere believe they are overextended. Different groups resonate to different approaches and use different language to communicate the same concepts. As a result, the CEO and other senior academic and student life leaders must frequently remind academic staff about the university's commitment to use engaging pedagogies institution-wide, and make certain this commitment is featured prominently in the university's strategic plan (Ehrmann & Bishop 2016).

Because higher education institutions tend to be loosely coupled (Weick 1976) in terms of how various organisational units operate, a collaborative, collective

approach to leadership is usually more likely to be effective (Birnbaum 1992; Lillis 2006), especially when it comes to enhancing the quality of the undergraduate experience (Eckel 2000; Felten, Gardner, Schroeder, Lambert & Barefoot 2016; Lillis 2006). In a collective leadership approach, it is possible and even desirable for a person with authority, such as a rector or president, provost, or dean to invite or challenge staff at different levels of the organisation to become actively involved in implementing an innovation (Kezar & Lester 2011). At the same time, effective leaders realise that to foster shared responsibility at all levels of the institution, a high degree of collaboration is required (Felten *et al* 2016).

This type of collective leadership approach legitimates efforts to use engaging pedagogies throughout the institution, and encourages creative adaptations of interventions at the points of implementation. When practitioners are free to be creative and adaptive in implementing core principles, the innovation is more likely to have the desired effects and become institutionalised.

In addition to these foundational but essential leadership behaviours, eight additional steps are needed to support and sustain the effective use of evidence to advance the student engagement agenda. Some of these steps can and should be taken at the outset, but others can only be fully realised over a longer term, several years or more. The first one is foundational to enacting both near- and longer-term goals.

Find and keep the right senior academic officer

Perhaps the single most important action a university can take to pursue and realise its educational priorities is to have an effective, right-minded senior academic administrator. Whatever the title, such as provost in a United States institution or (deputy) vice-chancellor academic in Australia or South Africa, this is the person who is second in command and whose job it is to maintain a laser-like focus on making sure staff are doing the right things to foster high levels of student and institutional performance. Because universities have many important tasks to perform and academic staff seem always to be in transition, stable senior academic and student life leadership is critical. No one is more important than the vice-chancellor academic/provost for providing coherence and tactical oversight in advancing the student engagement agenda.

It takes about six or seven years for meaningful changes to take root in the institution's culture and for student engagement policies and practices to become normative, or 'the way we do business here'. The right senior academic officer must be in place for at least this period to provide the continuity of vision and relentless leadership required to sew student engagement policies and practice into the institutional fabric.

This is why the president of California State University (CSU) Fullerton, Dr Millicent Garcia, aggressively and successfully sought out Jose Cruz to join her as provost. She knew of Cruz' commitment to use data to inform institutional practice to help first-generation and low-income students succeed in university study. At CSU Fullerton, where these kinds of students are in the majority, Cruz and his colleagues have put into place programmes and activities based on student engagement to increase the first to second year persistence rate by about 10% over three years.

Without a long-serving, right-minded, data-oriented, respected provost/vice-chancellor academic, it is almost impossible to create and institutionalise the other conditions that enable the effective use of student engagement data.

Put someone in charge

Although everyone should be responsible for student engagement, someone must be explicitly accountable for achieving it. Some individual or group must coordinate and monitor the status and impact of institutional student success initiatives. While unequivocal, vocal support from the provost and the president are important parts of the equation, their responsibilities are broad and too numerous to allow them on a day-to-day basis to monitor the progress of the student engagement agenda. Rather, in most instances a senior, well-respected academic staff member who has a reputation for getting things done should lead a student engagement task force or something similar. The general charge of the group should be to champion and periodically report on progress in improving student engagement. It could advocate and report on increases in the number of high-impact practices available to students and which students participate. It could also help interpret student engagement survey results and offer advice about other steps the institution can take to promote and support the use of engaging pedagogies. Sometimes a relative newcomer in such a group can lead the way – a new academic dean or student life officer with fresh ideas for ways to integrate students' in-class and out-of-class experiences. 'In charge' parties are not necessarily expected to bring about the changes themselves, but to monitor, prod and support others who also were working on the issues. Other key resources can be teaching and learning centre staff and members of campus policy bodies.

Insist on having and using current student engagement data to inform policy and practice

Information about the way students spend their time is foundational to determining where to invest institutional effort and resources to improve student engagement. The National Survey of Student Engagement (NSSE) website offers substantive advice

for how often to collect this information and ways to analyse and report the results effectively, for example *Lessons From the Field: Using Data to Catalyze Change on Campus* (NSSE 2015).

The Australian Council for Educational Research (ACER) provides additional examples from universities using the Australasian Survey of Student Engagement (AUSSE) (introduced in Chapter 6) as does the Irish Survey of Student Engagement (ISSE) administered through a partnership between the Ireland Higher Education Authority (HEA), several relevant representative institutions and organisations (Institutes of Technology Ireland, IOTI, and the Irish Universities Association, IUA), and the Union of Students in Ireland (United StatesI) (National Survey, Local Impact n.d.). The South African surveys of student engagement include examples of actions institutions can take in its annual report as well as web-based development facilitations through the Classroom Survey of Student Engagement (CLASSE) to improve teaching and learning for academics and academic developers.[1]

But administering engagement surveys is a waste of time if the provost or other academic leaders do not include student engagement information on the institution's performance indicator dashboard, devote time at meetings of the institutional governing board and academic and student life deans discussing the implications of engagement data, and target resources to address shortcomings.

A focus on student engagement may begin with verified data about graduation rates or time to degree and available information from direct measures of student performance on tests and instruments. At some point, however, the institution should also seek to discover as much as possible about post-university employment and post-graduate studies.

Presidents, rectors, and other leaders can enhance an institution's reputation by communicating many of the institutional metrics of student engagement to the wider world. In addition to metrics, institutional transparency should include a full and systematic account of the methods that are used to gather and act on evidence, such as in programme reviews at the departmental level that increasingly require a focus on student learning. The way evidence derived from these processes is used to change how courses are taught and programmes are improved can be described and illustrated. Senior academic and student life leaders can also support efforts to provide and interpret data that can be compared with similar institutions about critical

1 The piloting and development of the first version of the South African Survey of Student Engagement (SASSE) took place in 2006. Chapter 1 discusses in detail the development of the surveys in the South African context.

aspects of student experience and attainment on everything from grading practices to success rates on professional qualifying exams. In today's knowledge society, institutional leaders and those around them must stay focused on documenting and communicating the transformative power of education.

Use student engagement data to develop more effective policies and practices

As Richard Morrill (2007) advised, academic and student life staff must "close the empty space" between collecting data about student engagement and using it to inform and guide reforms. Too often, relevant information is sequestered in one office and not shared or connected with other information to create understandings that can persuasively mobilise action. Leaders must prioritise the use of data, and then make sure that the relevant curriculum and planning committees distil the implications born of the data and set forth action plans to address them.

Presidents and senior staff also must work to ameliorate the negative effects of typical bureaucratic functions, such as evaluating, reporting and planning, driven by the compliance requirements of external entities. Without question, universities are obliged to be accountable to their stakeholders. But if these tasks are allowed to become an end in themselves, they will distract from the core business of educating students. Creative leaders can reshape the tools of accountability to become tools for institutional improvement. They can insist that data collecting offices and academic leaders work together to connect different data sources in ways that respond to accountability demands while featuring student and institutional accomplishments with an eye toward improving outcomes.

Indeed, constructive staff involvement requires integrating student engagement data with the results of learning outcomes assessment principally for improvement, rather than for accountability. Ample evidence from education as well as from health care and business indicates that it is counterproductive to permit accountability to become the perceived purpose of assessment. When this occurs, all workers, and especially highly trained professionals, tend to become quite skilful in undercutting the validity of assessment indicators and subverting the effectiveness of potentially punitive accountability systems. To drive improvement, the staff members involved must fully accept the validity and importance of engagement indicators. If their personal values and motivations for personal effectiveness are reflected in these assessment indicators, academic and student life staff will be eager to use them for improvement. This is why whatever the source of student engagement data, whether it be from the South African Surveys of Student Engagement (SASSE) or locally developed tools, the information may not be useful unless it answers questions that academic and student life staff have about the student experience and how to more

often channel student effort into educationally purposeful activities. The good news is that we now have a better idea of how leaders can help their institution do this well. Kuh *et al* maintain that:

- They involve the key stakeholders – academic and student affairs staff, students, governing board members, and others as appropriate at the beginning of any student engagement assessment project to determine the questions it needs to answer.
- They build interest and momentum by creating occasions for people to work together to raise issues and questions they care for and need to know more about in order to improve student engagement and learning.
- They reconvene these same people to make sense of the findings and tease out their implications for action.
- They present engagement results in transparent, understandable forms to the people who have a need to know and act on them (Kuh *et al* 2015).

An instructive example is the University of Limerick where ISSE results were featured in specific briefings of the Vice-president Academic and registrar's Management Group as well as in discussions of the Teaching and Learning Committee (a sub-group of Academic Council). ISSE reports were distributed to all faculties for discussion and the specific ISSE themes were aligned with the Student Evaluation of Teaching Survey. In addition, in February 2014, the university hosted a seminar on the ISSE as part of the Seminar Series funded by the National Forum for the Enhancement of Teaching and Learning.

Modify the institutional incentive and reward systems to encourage and support the use of engaging pedagogies informed by student engagement results

In order to enhance student engagement, a substantial number of academic staff must be attitudinally disposed to experiment with engaging pedagogies and practices. The combination of NSSE and Faculty Survey of Student Engagement (FSSE) data show that the greater the number of academic staff who believe it is important for their students to participate in high-impact practices (HIPs) before they graduate, the greater the number of students who participate in these practices. The main point here is not that the academic staff members themselves are involved in a high-impact practice, but rather that their attitudes toward HIPs and student engagement are positive enough such that they endorse the value of HIPs and encourage students to participate in such activities.

At the same time, it is reasonable to assume that the more experience academic staff have with engaging pedagogies including HIPs, the more positive they will be

about student engagement in general and the policies and practices that support such efforts. In the School of Engineering at the University of Glasgow in Scotland, enhancing student engagement is key to an effort to promote student persistence and success by incorporating active learning, induction (or structured early socialisation activities) and participation in co-curricular activities (Browitt, Balance, Griffiths, Finlay & Rinaldi 2016).

Instructional staff attitudes and behaviour are shaped by both the incentives built into institutional reward systems and the values to which staff have been socialised through their experience and academic training. It is unlikely that staff will experiment with and use different instructional approaches if the institutional reward system does not encourage and support efforts to improve student learning. If the criteria for contract renewal, promotion, and salary increases primarily or exclusively emphasise research, publication and scholarly recognition, teaching will receive short shrift. It is equally unrealistic, however, to expect teaching staff to respond to incentives for improving instruction that are not aligned with their fundamental understanding of and commitment to academic values.

Thus, consistent messages from the president or rector, other academic leaders, and the governing board about improving student engagement and attainment are essential. However, such messages have a greater likelihood of encouraging and supporting behavioural changes when they are combined with concrete shifts in budgetary priorities and other forms of recognition that underscore and support high-quality learning and teaching. Presidents, provosts, and academic deans cannot set standards or establish meaningful incentives by themselves, but they have substantial influence in placing the issue on the agenda of the committees and other groups that periodically review faculty and student performance standards. In *Making the Grade: How Boards Can Ensure Academic Quality,* Peter Ewell (2012) argues that governing boards are key players in reinforcing and supporting the declarations by institutional leaders that focusing on increasing student engagement is an institutional priority, an academic duty, and a staff responsibility. As institutions gain more experience using evidence to improve teaching and learning, over time the patterns and priorities favoured by academic staff will change, especially when incentives and individual and programme recognition are linked to improved student performance.

So, sooner or later (preferably sooner), tweaks will be needed to the institutional reward system and other incentives offered, such as small grants, to encourage and support experimentation with engaging pedagogies, HIPs, and other engagement-related efforts. Every institution has more than a few academic staff who are engagement savvy and routinely incorporate engaging pedagogies in their work with students inside and outside the classroom. But to grow the number who do so,

the reward system must materially acknowledge the importance and value of such work and should be represented in personnel policies and practices that encourage and support staff to experiment with engaging pedagogies and promising practices.

Another way to reinforce the importance of student success is by publicly recognising excellence in teaching, research, or service at ceremonial events. For example, the University of Kansas bestows more than 20 teaching awards annually, many of which carry cash stipends. Many other postsecondary institutions in the United States provide such awards to acknowledge outstanding contributions to student achievement. Rewards and recognitions reinforce what is important and work best when they are transparent and operate in a manner consistent with espoused campus values.

Cultivate an ethic of continuous improvement

Typically, what is measured gets attention. Engaging universities publicly report on their performance and build feedback loops into the curriculum and other educational policies and programmes. People are characteristically 'positively restless'; they are never quite satisfied with the status quo and are personally convinced that it is always possible to do better (Kuh *et al* 2010). They periodically and systematically review campus priorities, policies, and practices to ensure that what is enacted is of acceptable quality and consistent with the institutional priorities and values. Such examinations can be formal, such as programme reviews or accreditation self-studies, or less formal, such as departmental or programme-specific discussions about what is working well and what needs attention. The goal is to make data-informed decision-making a distinctive and prominent thread in the institution's cultural fabric, so that everyone knows it's 'the way we do business here'.

Scale up policies, programmes and practices that work

Strong performing institutions typically have many high-quality programmes and practices. Moreover, they make certain that initiatives touch substantial numbers of students in meaningful ways, especially those students known to be at risk of leaving university prematurely. Indeed, one of the most persuasive warrants for increasing the use of engaging pedagogies and HIPs is that these activities have compensatory effects and, thus, have the potential to close the achievement gap. That is, participating in a HIP boosts the performance of students less well prepared for university study, those who are first in their family to go on to postsecondary education, and those who are from historically underrepresented racial and ethnic groups.

Disaggregating student engagement results by various student background characteristics can reveal, for example, disparities in participation rates in HIPs. It

is, sadly, typical that students first in their family to attend university are less likely to study abroad, do an internship, or work on a research project with an academic staff member. As a result, they are less engaged overall in their studies and graduate at lower rates than their peers who do one or more of these activities. Leaders must demand that these data are evaluated every year and steps take to remove barriers to participation.

Because of the desirable effects associated with participating in a HIP, many institutions have or are in the process of making it possible for all students to have one or more of these experiences. One of the better documented stories about institutionalising engaging practices is that of Elon University as told by George Keller in his book, *Transforming a College: The Story of a Little-Known College's Strategic Climb to National Distinction* (Keller 2004). It chronicles how the then president of Elon University, J. Fred Young, and his top aides in the 1990s used the literature on the conditions that enhance student development to devise an uncommonly wise strategic planning and institutional renewal effort to overhaul the curriculum to feature experiential, inquiry-based learning and cultivate a learning-centred campus culture. Compared with students at other United States colleges and universities, NSSE data show that two-thirds of Elon first-year students at least occasionally make class presentations compared with only 35% of freshmen elsewhere. Elon seniors are much more likely to study abroad (79%), do an internship or field placement (92%), and have a culminating senior experience (94%).

Another example of institutionalising an engagement agenda is Hendrix College in Arkansas. All of its 1 500 students participate in its signature Odyssey Program, which like Elon features experiential learning in the form of three Odyssey activities (Hendrix College n.d.). These year-long experiences are similar in many respects to such HIPs as independent research or an internship in terms of what they induce students to do. As a result, Hendrix students demonstrate large increases between the first and senior year in the percentage of who participates in HIP-like experiential activities, placing it in the top 5% of all colleges in the United States.

The mounting evidence of the power and value of experiential, high-impact practices persuaded the chancellor of the 64-campus State University of New York system to launch an initiative that requires every undergraduate student at every one of its two-year or four-year campuses to complete an applied learning experience during their studies. The 23-campus California State University has partnered with the National Association of System Heads in an effort to compile and share promising approaches to deploying engaging practices in an equity-minded manner to reduce the HIP participation disparities among students from different backgrounds.

At Ursinus College, all students complete the Common Intellectual Experience in the first year and an Independent Learning Experience, such as a research project, study abroad, or internship, before they graduate. All undergraduates at Miami University complete a capstone seminar. Georgia State University, San Diego State University, and the University of Texas at El Paso are among the scores of other institutions where institutional leaders over an extended period of time employed many of the tactics discussed in this chapter to inspire and support their colleagues to use engaging pedagogies to increase student accomplishment while reducing the achievement gap that bedevils many of their peer universities.

The power of engaged learning and experiential education is a global phenomenon. For example, Tsinghua University in Beijing, China has adopted what is called the Maker Learning philosophy and approach for its undergraduate programme which features experiential learning in the form of peer-to-peer collaboration, flipped classrooms, and project-based activities. This combination is intended to foster design thinking through collaboration and integrative thinking (http://www.adelaide.edu.au/caustl/images/Thursday_Zheng_Li_Keynote.pdf). The motivation for the institution-wide innovation is not unlike what is prompting similar efforts in the United States: how to reconfigure higher education so university graduates and those who employ them can compete more successfully in the global marketplace!

Stay the course

Universities do not become engaging institutions overnight. Leaders and other key actors focus their efforts for an extended period of time in order to establish them, demonstrate their efficacy, and sew them into the institutional culture in a manner that complements the institution's espoused values and educational purposes. It is also the case that behind every engaging class or programme service are competent, caring people who share the institution's vision for student success. Thus, one essential step to cultivate an engaging campus culture is for provosts, academic deans, and senior faculty to hire academic staff that are committed to enacting the student engagement agenda.

Increasing student engagement institution-wide is not a linear or standardised process, but organic and experimental. Engagement results from a tool such as SASSE, which, if presented the right way can engender a spirit of innovation and continuous improvement in teaching, learning and gathering evidence of the kind that most academic staff value in their own scholarly work. Revelations about the value of student engagement come through academics working together to evaluate student performance on key courses and assignments, such as capstone courses and theses, or in the required gateway courses to a major, or on the learning goals

in general education courses and programmes. In this way, the institution gains experience working pragmatically across silos in order to solve problems and optimise educational opportunity.

CONCLUSION

There is no one best route to becoming an engaging institution. But the warrant for doing so is compelling. The 21st century places a high premium on sophisticated knowledge and skill, as outlined by the learning outcomes literature and associated frameworks (ELO, DQP, etc.) mentioned earlier. Because the proficiencies and dispositions described in these frameworks are essential to an individual's success and a productive national economy among other desired circumstances, institutions must take more responsibility for helping students acquire these capabilities. This means that institutions must be clear about their desired learning outcomes, assess the extent of their achievement, and use assessment to improve instruction and attainment.

And this reminds us about why this book and institutional leadership are needed to successfully enact an agenda to foster higher levels of student engagement. Of course, students themselves must devote effort to educationally purposeful tasks to benefit from the resources institutions provide for their learning and personal development. At the same time, it is the institution's responsibility to employ engaging pedagogies and high-impact practices to facilitate student engagement and achievement.

To advance the engagement agenda, institutional leaders must constantly insist that higher levels of student attainment are a priority, while respecting staff leadership and giving staff opportunities to design approaches for improvement and measures of increased attainment that are congruent with the academic ethos. Leaders also must set forth the vision and provide sufficient support to enact policies, engaging pedagogies, and high-impact practices that are known to foster high levels of student engagement. They must also insure that processes are in place to measure and monitor student engagement in order to know what needs to be done to improve learning outcomes.

Precisely how these conditions are created may vary, depending on the institution's educational purposes and culture along with the characteristics of its students. What must not vary is a firm, long-term commitment by institutional leaders and managers at every level of the organisation to ensure that all students reap the benefits of engagement.

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9 PROMOTING PEDAGOGICAL PRACTICES THAT MATTER

Jillian Kinzie, Francois Strydom & Sonja Loots

Education is what you know, not what's in the book – Egyptian proverb

INTRODUCTION

The focus on how students learn and what this means for instructional practice have expanded since Barr and Tagg (1995) declared that postsecondary education was undergoing a transition from an 'instructional paradigm' to a 'learning paradigm'. The shift from an emphasis on delivering content to designing learning experiences, from thinking about inputs to focusing on outcomes, from higher education as a collection of separate activities to an integrated experience, has helped create a fertile environment for research about effective instructional practices. It has also helped encourage more educators to implement enriching educational opportunities that contribute to student learning and success.

Coinciding with the shift to a learning paradigm, were concerns about improving the quality of undergraduate education and ensuring more students from wide-ranging backgrounds earned higher education degrees. These initiatives provided support for the establishment of United States assessment projects, namely the National Survey of Student Engagement (NSSE) and the Community College Survey of Student Engagement (CCSSE), which later also informed the development of the South African Surveys of Student Engagement (SASSE). These surveys promised valid, reliable and comparable data about educational quality by asking undergraduate students directly about their educational experiences and particular classroom activities that research shows enhance learning and success. The characteristics of student engagement are useful to measure because they impact directly on the quality of student learning and higher education outcomes.

Measurement of the extent to which students are engaged in practices that matter for learning provide an important opportunity to call attention to the presence or absence of the kinds of educational practices characteristic of a learning paradigm. If, as Shulman (2005:38) asserted, "learning begins with student engagement", then methods for ascertaining the extent to which students are engaged in the learning process can offer helpful feedback to campus educators who wish to make an impact on student learning. With evidence from assessments of student engagement, practitioners concerned about student success can gain instructive insights about their students' educational experiences and how it can be improved. For example, survey results can reveal the extent to which lecturers provide timely feedback on academic performance or which students are engaging in collaborative learning activities. Simple data points like these can catalyse discussions about expectations for feedback, course assignments and teaching practices (Kuh, Kinzie, Schuh & Whitt 2010).

In the United States, higher education teachers' interest in the learning processes of their students is growing (Doyle 2011), and a substantial body of knowledge exists on different research tested pedagogies to use and strengthen instruction and educational effectiveness (Ambrose, Bridges, DiPietro, Lovett & Norman 2010; Blaich, Wise, Pascarella & Roksa 2016; Mayhew *et al* 2016). As a result, this is an opportune time to consider all the ways enhanced instructional practice can positively influence undergraduate learning. In contrast, research on teaching and learning in South Africa has been overshadowed by a focus on transforming the broader post-democratic higher education system primarily through widening access and redressing gender and racial inequities (Department of Higher Education and Training [DHET] 2013). More recently, the focus has moved towards addressing the low student success rate through enquiries into student underpreparedness, curriculum adjustments, and the development of academic teaching and learning support. However, there is still a lack of context-specific literature about which educational behaviours effectively promote student engagement and student success. It is therefore also an opportune time to consider ways in which enhanced educational practice could impact student learning in South Africa, albeit for different reasons and in different developmental contexts.

The chapter outlines the student engagement practices that matter for student learning and focuses specifically on those that instructors can influence. First, the chapter considers the foundational background and concept of student engagement within teaching and learning spaces, followed by a summary of research findings highlighting 19 student engagement and instructional practices that positively contribute to success. Next, the chapter turns to the South African context and

explores how effective pedagogical practices could be contextualised, and how or whether such practices impact academic achievement. The chapter concludes by presenting an integrated perspective to propose implications for pedagogical practice, with some emphasis on the South African context.

STUDENT ENGAGEMENT AND TEACHING AND LEARNING

The basic tenets of student engagement are rooted in research about effective instructional practice, particularly active and experiential learning. The *Seven Principles for Good Practice in Undergraduate Education*, developed by a group of scholars of higher education and distilled from 50 years of research, outlined a set of standards of active learning to apply to improve learning (Chickering & Gamson 1987, 1991), including (a) engaging in student-staff contact, (b) encouraging cooperation among students, (c) using active learning techniques, (d) providing prompt and meaningful feedback, (e) emphasising time on task, (f) communicating high expectations, and (g) respecting diverse talents and ways of learning. These seven principles are the basis of what is measured in the concept of student engagement and represent foundational instructional expectations for undergraduate education.

This short list of empirically based, common-sense principles has been influential in broadening approaches to pedagogy on many campuses. The practices have been associated with many desirable outcomes, hold meaning for learning across professional programmes and the liberal arts, and foster learning among all students – including across racial-ethnic groups, ages, socio-economic statuses, genders, and levels of preparation (Cruce, Wolniak, Seifert & Pascarella 2006; Mayhew, Wolniak & Pascarella 2008; Pascarella, Salisbury & Blaich 2011; Pascarella & Terenzini 2005). Further, the principles assert the responsibility of educators and educational leaders to foster an environment favourable to good practice in higher education.

The use of the term "student engagement" to encompass the seven principles followed from the conclusion that "the greater the student's involvement or engagement in academic work or in the academic experience of higher education, the greater his or her level of knowledge acquisition and general cognitive development" (Pascarella & Terenzini 1991:616). In 2005, the authors concluded that higher education institutions should optimise conditions to encourage student engagement. Evidence showed that a key factor to whether students will survive and thrive once they enter higher education institutions is the extent to which they take part in educationally effective activities (Pascarella & Terenzini 2005). Most important about the student engagement concept is that it involves the intersection of student behaviours and institutional conditions. For example, high levels of purposeful student-staff contact

and active and collaborative learning supported by institutional environments perceived by students as inclusive and affirming can foster student engagement. Both student and institutional dimensions are critical to student engagement.

IDENTIFYING PEDAGOGICAL PRACTICES THAT MATTER TO LEARNING AND SUCCESS

The essential premise associated with student engagement is that the more students engage in practices that matter for learning, the more likely they will be retained, learn and persist to degree completion. To that end, a simple prescription for educators is to put as many student engagement practices in place in the curriculum and co-curriculum to maximise engagement. Of course, creating optimal student engagement experiences requires, for example, thoughtful pedagogical innovation, consideration of space and environment, collaboration with advisors, student affairs staff and other support services, and the creation of new or expanded enriching opportunities, for example, service learning or undergraduate research. Yet, willing educators equipped with information about the practices that matter most can certainly design a more engaging undergraduate experience. For example, knowing the specific student engagement practices that matter in the critical first year of study – a phase of the undergraduate experience with significant bearing on student success (Barefoot 2000; Upcraft, Gardner & Barefoot 2005) – is particularly useful given interest in improving completion and success.

The exploration of practices that matter in the first year were highlighted in *Unmasking the Effects of Student Engagement on First-Year College Grades and Persistence* (Kuh, Cruce, Shoup, Kinzie & Gonyea 2008), a report of a large, multi-institution study that determined the relationships between key student behaviours and the institutional practices and conditions that foster student success. The study merged student-level records from students at different types of institutions to examine the links between student engagement and two key outcomes of higher education: academic achievement and persistence.

With regard to the extent to which engagement during the first year of study has an impact on first-year grade point average and chances of returning for a second year, net the effects of student background, pre-college experiences, and prior academic achievement, this study confirmed that student engagement in educationally purposeful activities is positively related to academic outcomes as represented by first-year student grades and by persistence between the first and second study years. In these analyses, student engagement in educationally purposeful activities was represented as a summative scale of 19 NSSE items measuring student interaction

with lecturers, their experiences with diverse others, their involvement in opportunities for active and collaborative learning, and so forth. Each of the 19 items contributed equally to this global measure of student engagement and include:

1) Asked questions in class or contributed to class discussions.
2) Made a class presentation.
3) Prepared two or more drafts of a paper or assignment before turning it in.
4) Come to class without completing readings or assignments (reverse coded).
5) Worked with other students on projects during class.
6) Worked with classmates outside of class to prepare class assignments.
7) Tutored or taught other students (paid or voluntary).
8) Participated in a community-based project as part of a regular course.
9) Used an electronic medium (chat, Internet, etc.) to discuss or complete an assignment.
10) Used email to communicate with an instructor.
11) Discussed grades or assignments with an instructor.
12) Talked about career plans with an academic staff member or advisor.
13) Discussed ideas from your readings or classes with academic staff members outside of class.
14) Received prompt feedback from lecturers on your academic performance (written or oral).
15) Worked harder than you thought you could to meet an instructor's standards or expectations.
16) Worked with academic staff members on activities other than coursework (committees, orientation, student life activities, etc.).
17) Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.).
18) Had serious conversations with students of a different race or ethnicity than your own.
19) Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values.

These items were selected because previous research shows that all are positively related to desired outcomes of higher education (Pascarella & Terenzini 2005). Importantly, these items represent student behaviours and activities that institutions can influence to varying degrees through teaching practices and creating other conditions that foster student engagement. Using a multiple-item scale made the analysis more efficient and findings more reliable, since analysing the relationships

between large numbers of individual items can be misleading when applied to diverse groups of institutions and students.

DETERMINING EFFECTIVE PEDAGOGICAL PRACTICES FOR THE SOUTH AFRICAN CONTEXT

The same principle noted above, namely, that items representing effective pedagogical practices should represent student behaviours and activities that institutions can influence to varying degrees, as well as including a normative stance on developing socially conscious citizens who could contribute to social cohesion in South Africa, guided the selection of contextualised items from the SASSE. Drawing from Kuh *et al* (2008), to identify which pedagogical practices impact on students' academic achievement in the South African context, we expanded on the list of 19 to make room for contextualised practices and measured these items against students' academic achievement. In the end, we identified 27 items representing three themes: Effective Educational Behaviours; Deep Learning; and Effective Teaching Practices. The following sections explain the processes of item selection, after which we report on how the contextualised items correlated with and explained variance in 1 985 undergraduate students' academic achievement. Because of privacy laws restricting the inter-institutional sharing of identifiable information, we only use institutional data from the 2014 SASSE administration at the University of the Free State, from where the student engagement surveys are administered.

SELECTING EFFECTIVE PEDAGOGICAL PRACTICES

The 19 items identified as effective educational practices were used as a conceptual starting point for developing contextualised effective pedagogical practices for the South African context. Five items were excluded from this list: three of them because we would like to distinguish between pedagogical practices (exclusively within classrooms) and high-impact practices (within or beyond classrooms, but primarily co-curricular learning). These items included acting as a tutor or peer learning facilitator; participation in community-based projects as part of courses; and working with staff members on projects beyond coursework. These items are included elsewhere in this book amongst developing high-impact practices for the South African context. The other two items we excluded from the initial 19 measured whether students used an electronic medium to discuss or complete assignments, and whether they use email to communicate with instructors. The first item was excluded because the institution makes use of a learning management system, which could impact the validity of the response to this item; and the second item was excluded

because many students do not have access to computers or internet when they are not on campus, which would also skew data for this item. Lastly, although there is significant overlap between the NSSE and SASSE items, some items are phrased differently or merged with other items to increase their relevance and understanding amongst South African students and staff. That means that the first set of items based on the original 19 items (and excluding the five mentioned earlier) focusing on Effective Educational Behaviours, consists of 11 items.

Considering the national importance placed on redressing social injustices in South Africa and the prominent role higher education should play in shaping reflective and socially conscious citizens (e.g. DHET 2013), we learn from Nelson Laird, Shoup, Kuh and Schwarz's (2008) findings that students who engage more in deep approaches to learning experience higher levels of personal and intellectual development, as well as more satisfaction with their college life. Further, drawing from research done by Nelson Laird, Shoup and Kuh (2005) to develop the NSSE Deep/Integrative Learning Scale, as well as drawing from items relevant to the social cohesion responsibilities prioritised by national government, we developed the Deep Learning theme, consisting of 11 items.

Finally, items measuring effective teaching strategies were combined to form the third theme of Effective Teaching Practices. In the end, the 27 items looked as such:

Theme 1: Effective Educational Behaviours

1) Asked questions or contributed to module/subject discussions in other ways.
2) Gave a module/subject presentation.
3) Prepared two or more drafts of a paper or assignment before handing it in.
4) Attended class without having completed readings or assignments.
5) Discussed your academic performance with a lecturer.
6) Talked about your career plans with a lecturer.
7) Discussed module/subject topics, ideas, or concepts with a lecturer outside of class.
8) Asked another student to help you understand module/subject material.
9) Explained module/subject material to other students.
10) Worked with other students on projects or assignments.
11) During the current academic year, to what extent have your modules/subjects required you to do your best work?

Theme 2: Deep Learning aimed at supporting socially conscious graduates

12) During the current academic year, how often have you had discussions with: people of a different race or ethnicity than your own?

13) People from an economic background different from your own?

14) People with religious beliefs different from your own?

15) People with political views different from your own?

16) Combined ideas from different modules/subjects when completing assignments.

17) Connected your learning to societal problems or issues.

18) Included diverse perspectives (political, religious, racial/ethnic, gender, economic, etc.) in module/subject discussions or writing assignments.

19) Examined the strengths and weaknesses of your own views on a topic or issue.

20) Tried to better understand someone else's views by imagining how an issue looks from his or her point of view.

21) Learned something that changed the way you understand an issue or concept.

22) Connected ideas from your modules/subjects to your prior experiences and knowledge.

Theme 3: Effective Teaching Practices

23) Received detailed feedback shortly after you completed tests or assignments.

24) Clearly explained module/subject outcomes and requirements.

25) Presented module/subject sessions in an organised way.

26) Used examples or illustrations to explain difficult points.

27) Provided feedback on a draft or work in progress.

DETERMINING THE RELATIONSHIP BETWEEN EFFECTIVE PEDAGOGICAL PRACTICES AND ACADEMIC ACHIEVEMENT

Because the higher education system in South Africa does not work with official Grade Point Average scores, a similar average mark from all final examination marks in 2014 was calculated for each student. A multiple regression analysis was then done to determine which of the specific items correlate with students' marks, as well as whether the individual three themes and set of 27 items could predict a variance in students' academic performance.

Out of the 27 items, ten items had a significant positive correlation with the whole sample of students' marks. The respective items, along with the Pearson correlation coefficient (*r*), the number of participants included in the analysis, as well as the level of significance are shown in Table 9.1.

TABLE 9.1 Correlations between 27 contextualised educational practices and academic achievement

Theme 1: Effective Educational Behaviours	*r*	N	*p*
Asked questions or contributed to module/subject discussions in other ways	.095	1977	.000*
Attended class without having completed readings or assignments (Reversed scoring)	.074	1962	.001*
Talked about your career plans with a lecturer	.046	1978	.040**
Explained module/subject material to other students	.102	1959	.000*
During the current academic year, to what extent have your modules/subjects required you to do your best work?	.071	1872	.002*
Theme 2: Deep Learning aimed at supporting socially conscious graduates	***r***	**N**	***p***
During the current academic year, how often have you had discussions with: people of a different race or ethnicity than your own	.070	1969	.002*
People from an economic background different from your own	.068	1965	.002*
Theme 3: Effective Teaching Practices	***r***	**N**	***p***
Received detailed feedback shortly after you completed tests or assignments	.046	1950	.042**
Clearly explained module/subject outcomes and requirements	.106	1961	.000*
Presented module/subject sessions in an organised way	.084	1947	.000*

*$p<.01$; **$p<.05$

While all the positive correlations between items and marks are statistically significant, the correlations themselves are not very strong. For example, the two items with the strongest correlations only show correlation coefficients of $r=.102$ and $r=.106$ respectively.

Four multiple regression analyses in the form of four models (1=Theme 1; 2=Theme 2; 3=Theme 3; 4=total of 27 items) were then tested to determine the extent to which these themes impact on the variance in students' end-of-year marks.

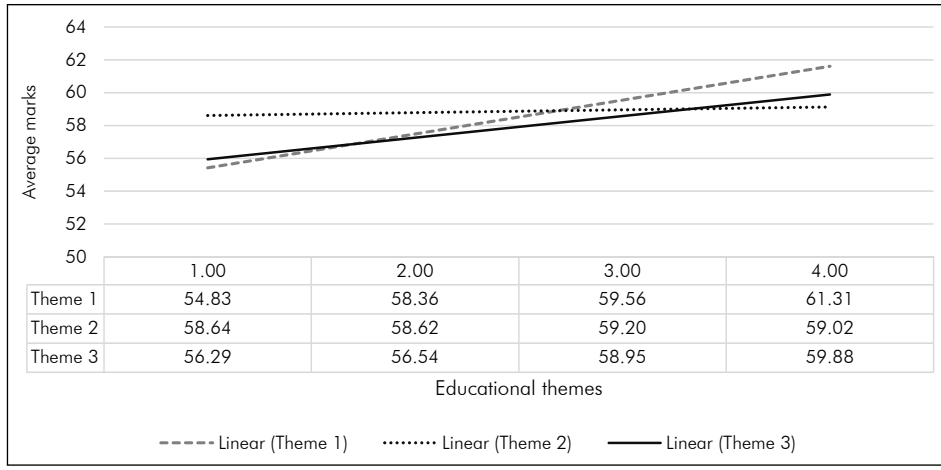
TABLE 9.2 Multiple regression analysis: total UFS sample

	F	df regression	df residual	Sig	R^2	R^2 adjusted
Model 1	6.276	11	1831	.000*	.036	.031
Model 2	2.071	11	1908	.020**	.012	.006
Model 3	6.830	5	1916	.000*	.018	.015
Model 4	4.512	27	1806	.000*	.063	.049

*$p<.01$; **$p<.05$

Table 9.2 shows that each of the individual themes (Effective Educational Behaviours; Deep Learning; and Effective Teaching Practices), as well as the 27 items as a whole contribute significantly to explanations of variance in students' marks (all $p<.05$). In statistical terms, the adjusted R square values used to determine the extent of this impact seems relatively low. For example, Theme 1 is responsible for 3.1% of variance in marks; Theme 2, for 0.6%; Theme 3 for 1.5%; and the total group of 27 items is responsible for 4.9% of variance. However, considering that we are applying statistical methods to educational settings outside of a controlled environment, where human complexities are unpredictable, a 5% variance in marks could count for the difference between acceptance into a programme or rejection; between reassessment or pass; or between a regular pass and a distinction.

Figure 9.1 shows a visual representation of how students' average marks increases alongside an increase in each of the educational themes.



	1.00	2.00	3.00	4.00
Theme 1	54.83	58.36	59.56	61.31
Theme 2	58.64	58.62	59.20	59.02
Theme 3	56.29	56.54	58.95	59.88

FIGURE 9.1 Average marks compared to educational theme scores

Students' average marks of 54.83 increases by 6.48 the higher they score on Theme 1 (Effective Educational Behaviours) items. The second highest impact on marks is Theme 3 (Effective Teaching Practices), where students' average marks of 56.29 increase by 3.59 as they score higher on the theme's items. Lastly, Theme 2 (Deep Learning) shows a very slight increase of 0.38 points between those scoring lower and higher on the theme's items.

WHAT THE DATA CONTRIBUTE TO OUR THINKING ABOUT EDUCATIONALLY EFFECTIVE PEDAGOGIES

The data presented here provide a powerful starting point for reflection about teaching and learning practices, and the broader pedagogical environments they take place in. The most significant finding is that effective pedagogical practices matter – particularly when combining student effort or agency, deep learning practices and classroom environments. For the whole sample, these practices accounted for almost 5% of variation in academic achievement. Other important findings include: First, the correlational analyses highlight effective educational behaviours – many of which students are in charge of – impacting on academic performance. In other words, when students ask questions in class, when they go to class prepared, when they go and talk to their lecturers about possible career plans, when they explain things to other students, and when they find the academic content challenging, they tend to perform better academically. Correspondingly, lecturers must create opportunities for students to exercise these behaviours. Students are more likely to ask questions when assignments and in-class exercises demand active engagement, and when peer teaching and group learning are carefully structured

in courses. Secondly, the data tell us that contact with diversity influences academic achievement. That is, broadening one's mind to include perspectives of others who experience life differently – in this case from a different racial perspective or from a different socio-economic perspective – impacts on academic achievement. Finally, the data tell us that classroom environments matter. Students' marks are positively influenced when they receive detailed feedback shortly after assessments, when subject outcomes and requirements are explained clearly to them, and when subject content is presented to them in an organised way. These items imply that when students know what is expected of them and they can follow the logic of the course, they perform better academically.

This leads us to question what it means that many items do not show significant correlations with students' academic achievement. We suggest there are two reasons: First, these behaviours are not practiced to the extent that they should be to impact academic achievement; and second, the quality of the practices might need to be improved.

Regarding whether practices take place, there is enough student engagement data presented in different chapters in this book from different sources – students, lecturers or both – to get an idea of what happens (or doesn't happen) in classrooms. For example, the current analyses show us that the engagement subscale of reflective and integrative learning, representing seven of the 11 items in the Deep Learning theme, does not significantly contribute to students' academic achievement. Yet, we know from student learning literature that the ability to integrate, synthesise, analyse and make judgements about information is key to building knowledge and understanding about subject matter (e.g. Ambrose *et al* 2010; King & Baxter Magolda 2011). We also know that even though these skills are valued by both students and lecturers, lecturers primarily rely on traditional lecturing techniques to transfer knowledge as opposed to making use of interactive classroom techniques (see Chapters 4 and 10). This, combined with the lack of relationship between Deep Learning and academic achievement, point to a problem in the system between intentions/values and practice. The lack of skills developed through Deep Learning also impacts on the success of our graduates, which extends beyond merely passing subjects. It impacts on students' employability, their ability to contribute to the country's social cohesion, and even their ability to pursue postgraduate studies, where these skills are essential.

If effective educational practices do take place, it is important to gauge the quality of these practices. For example, we know from Chapter 5 and Chapter 10 that students often participate in group work, and that besides lecturing, group discussions are

favoured by lecturers (Chapter 4). If we know that a lack of implementation is not the issue, why then do we not see a relationship between working with other students on projects or assignments and academic achievement? We believe the answer here lies in the quality of the practice. It is not enough to merely divide students into groups and have them work on an assignment or discuss an issue. To have students optimally benefit from group interactions consideration needs to be given to diversity in groups, student buy-in, allocating responsibility and consequences, clarifying expectations and outcomes, etc.

SO, WHAT DO WE TAKE FROM THIS?

From the perspective of teaching and learning it is noteworthy that these analyses show student engagement in a range of behaviours that institutions can readily influence through a variety of common teaching practices can make a significant difference in student learning and success. It has been shown that common practices that have been tried and tested in the United States including active and collaborative learning, making class presentations, and preparing multiple drafts of an assignment, positively affect grades in both the first and last year of study as well as persistence to the second year at the same institution, even after controlling for a host of pre-college characteristics and other variables linked with these outcomes, such as scholarships or merit aid and parental education.

The list of pedagogical practices that matter reveals several practices that research and volumes about effective teaching have long declared as important to learning: a) frequent, timely feedback, b) active learning by asking questions and making presentations, and c) collaboration with peers. By all accounts, students need to be actively engaged in their courses through small group discussions, one-minute papers, quizzes, think-pair-share activities, and other common techniques (see Chapter 10 for more detail on developing classroom techniques). Quite simply, lecturing, when combined with active-learning techniques, is a worthwhile alternative to a lecture-only format. The need for early and frequent feedback, particularly when coupled with opportunities for revision, helps students learn from their mistakes. Though feedback can seem time-consuming, if done strategically and with opportunities for revision or when combined with peer feedback, it can save lecturers time and improve the quality of student work. In fact, peer reviews can enable students to feel empowered by the process of giving and receiving comments and can lead to improved writing versus receiving feedback from the instructor alone. Increasing the frequency of student engagement in these three core pedagogical practices alone would make a significant difference in student success.

Because peers are so very influential to student learning and persistence (Astin 1977; 1993), institutions must harness and shape this influence so it is educationally purposeful and helps to reinforce academic expectations. Notably, several of the items on the lists of pedagogical practices that matter involve peers as both collaborators and teachers. An important finding from the South African data is the relationship between explaining subject material to others and academic achievement, which could impact the way we think about collaborative learning inside and outside classrooms. Well-designed, in- and out-of-class group assignments and projects, facilitated study sessions, and coordinated discussion groups and recitation sections, are critical to structuring into the undergraduate experience, and particularly the first year, to ensure students build valuable peer support networks. Academic staff members should design more collaborative learning activities in-class, and also require more such projects and assignments. Intentionally structured occasions that bring students together for meaningful educational tasks in and out of the classroom are important opportunities for engagement.

Several forms of interaction with staff, including talking with staff about marks and assignments, discussing career plans, communicating via email, and working with lecturers on activities outside of courses, are also significant to student success. These educational practices are common, academically supportive interactions, for example, discussions to clarify the demands or direction for an assignment. However, they are also important opportunities to demonstrate lecturers' approachability and helpfulness and to ensure students feel a sense of support from academic staff. These interactions also provide occasions for career discussions, and some goal setting and planning. These could be performed by a staff member or advisor, but having someone to help set academic goals and create a plan for achieving them is an important part of students' early academic success. In general, the more students report having these interactions with lecturers the more support they feel for their learning and belonging.

Of course, whatever the contact with staff, it should represent a balance of challenge and support. Staff who make themselves available for office hours and discussions about assignments must display genuine support for students and affirm students as learners. Students who are unaccustomed to talking with lecturers, or who are in academic difficulty and are meeting with lecturers with some reluctance, might need greater encouragement and guidance about how to take advantage of these interactions. Peer tutors, advisors and student affairs and support staff can play an important intermediary role to facilitate students' interaction with academic staff,

encouraging reticent or underprepared students and helping them make the most of the experience.

The classroom is the most common venue that most students have for interacting with other students and with staff (Tinto 2000, 2001). Thus, using the classroom to create communities of learning must be a high priority in terms of creating a success-oriented campus culture. This means that staff members must also be more intentional about teaching institutional values and traditions and informing students about campus events, procedures, and deadlines such as registration. Creating a classroom experience that acknowledges campus life experiences is an important approach to fostering students' connections to campus. Staff members in partnership with student affairs professionals and other staff familiar with culture-building strategies can work together to create a rich, engaging classroom experience that complements the institution's academic mission.

Turning to the South African context more specifically, even though the proposed list of educationally effective pedagogical practices was only tested on one university sample for the purposes of this chapter, it paves the way for important discussions on how we can identify which practices matter in student learning and how we can promote these practices to support student success.

IN CLOSING

Edgerton (2001) introduced the term "pedagogies of engagement" to describe the modes of teaching and learning needed to improve educational quality. The teaching and learning practices named in this chapter provide a 'checklist' of sorts for staff who wish to increase practices that matter for student learning and success. However, even more specific models for understanding student engagement from a pedagogical standpoint are available. For example, Barkley (2010) developed a classroom-based model for understanding student engagement emphasising engagement as both a process and product of the interaction between motivation and active learning. She outlines an array of instructional practices that can be set up by lecturers to create conditions that enhance students' eagerness to learn and require students to do more of the work. Barkley profiled lecturers who created such conditions, and provides a large collection of student engagement techniques developed from good teaching practice literature.

One of the more promising findings from the NSSE and CCSSE projects is that the effect of engagement is greater for historically underserved students including those who are underprepared, are students of colour, or are the first in their family to go to higher education. Essentially, engagement is a powerful tool that can facilitate the

retention and graduation of students, especially those from underserved groups. This evidence has compelled institutions to seek ways to channel student energy toward educationally effective activities, especially for those who start higher education with two or more debilitating factors – being academically underprepared or first in their families to access higher education, or from low income backgrounds.

In fact, several scholars have explored the value of engagement for working with underprepared students. Gabriel (2008) outlined techniques that lecturers can employ to help students raise their skills. Prominent in her principles for instruction is that teachers must help students believe in their ability to learn (Dweck 2000), and that by modelling, providing feedback, talking to students about their effort and how they can take advantage of academic support resources, lecturers can enhance students' learning and success. Designing engaging active learning strategies, including opportunities for frequent feedback and substantive peer collaboration experiences, are effective educational practices for all students, but particularly for underprepared students who are most in need of lecturer support and guidance.

Greater attention to educational quality calls for lecturers to explicitly consider how students engage in their higher education experience and to create learning activities that are in harmony with findings about the best ways to help students learn and persist in their studies. As mentioned earlier, to create optimal engagement experiences in classrooms will require thoughtful pedagogical innovation, consideration of space and environment, collaboration with advisors, student affairs staff, and other support services. With evidence of the importance of student engagement, educators concerned about student success can gain instructive insights about their students' educational experiences and how they may be improved. Findings from student engagement projects point squarely to pedagogical practices that lecturers can enact to make a difference to student learning. We hope through the handful of engaging practices discussed in this chapter to stimulate more research and debates on how we can motivate students to be active agents in their own learning; how we can create curricular and co-curricular spaces conducive to student learning and development; and ultimately how we can encourage the development of successful, well-rounded graduates through our engagement work.

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10 USING ENGAGEMENT DATA FOR CHANGE AND EMPOWERMENT AT COURSE LEVEL

Francois Strydom & Lana Hen-Boisen

He who is wise endeavours to learn how to understand the truth not less than that – African proverb

INTRODUCTION

The teaching and learning relationship is crucial to high-quality student learning, personal development and success during and after university. Creating optimal classroom environments to support good teaching practices is therefore pivotal and requires that lecturers adopt a student-centred pedagogical methodology (Ouimet 2011). However, even though a significant body of knowledge exists related to teaching and learning, what happens in classrooms between lecturers and students is not often captured using data except for student evaluation of instruction forms, which is often required as part of institutional quality assurance but seldom intentionally used to further improvement.

This chapter illustrates how course/module level student engagement data from the Classroom Survey of Student Engagement (CLASSE) can be used to create effective teaching and learning environments and promote evidence-based improvement in pedagogical practices. The chapter shows how the data can give students a voice (agency) in how they are taught, how the data can be used to empower academics to be better teachers, and how evidence can help to facilitate more collaborative relationships between students and their teachers. The chapter further explores areas where students and staff tend to 'miss' each other the most; as well as the implication of the use of this measure for an evidence-based approach to academic staff development.

WHY FOCUS ON THE COURSE/ MODULE LEVEL?

Chapter 1 of this book highlighted a range of institutional level and course/ module level student engagement surveys. Institutional level surveys, in the South African context, include the South African Survey of Student Engagement (SASSE), the Beginning University Survey of Student Engagement (BUSSE), and the Lecturer Survey of Student Engagement (LSSE), which have been explored in different chapters of this book. The institutional level measures provide powerful data of an aggregated whole, which can be used for management level decision-making about the allocation of resources to different student groupings within the institution. However, disaggregating these large datasets to inform decisions on a micro-level in departments and modules runs the risk that sample sizes become too small or even non-existent, and secondly, staff and lecturers may protest against negative institutional level measure results with a defensive refrain: "these are not *my* students".

The CLASSE was developed by Judith Ouimet and Bob Smallwood (2005). The measure aims to collect data on levels of student engagement in a single module/ course based on the premise that classroom-level insights about the quality of student engagement can aid institutional efforts to enhance the adoption of engaging educational practices as well as guide the professional development of academic staff. CLASSE consists of a pair of survey instruments administered among students ($CLASSE_{Student}$) and the lecturer(s) ($CLASSE_{Lecturer}$) of a specific module. $CLASSE_{Student}$ data offer quantitative information on the time spent and frequency of engagement on educationally purposeful activities. $CLASSE_{Lecturer}$ data allow lecturers the opportunity to reflect on how important they consider these effective educational practices to be in their module in order for the students to be successful in that class. Therefore, CLASSE data can be used to improve teaching and learning practices, with the goal of improving student success rates.

The most powerful way to analyse and present the CLASSE data is by comparing the responses of students and lecturers to identify the importance of an educational practice as well as the frequency with which students are participating in the relevant practice. Of importance are the educational practices that lecturers perceive as important but that students do not engage in to the satisfaction of their lecturers. Additionally, the data allow staff to encourage students to participate in certain educational practices and by doing so, positively impact engagement. Staff may be able to evaluate and reflect on their teaching styles and adjust them accordingly to expose students to activities that can improve their learning efficiency (Ouimet & Smallwood 2005). CLASSE results can also help identify effective educational practices, shape teaching and learning experiences, and inform departmental and

institutional development initiatives. The combined use of institutional level measures, such as the SASSE and the LSSE, with a course/module level measure (CLASSE) can provide data that can help the promotion of student engagement on multiple levels of the institution. SASSE and LSSE comparisons enable student and staff perspectives to be contrasted at the institutional level, while CLASSE enables reflection on the differences between lecturers and the students at the module level.

EXPLORING THE CLASSE INSTRUMENTS

In the South African context, the CLASSE surveys are designed and administered through online survey-software and are often used as a diagnostic measure in modules/courses with high failure rates. The surveys are completed within four to six weeks after the start of the module class-sessions. It is important to allow enough time for students to become accustomed to the module and its presentation to form an accurate opinion before the survey is administered. CLASSE is complimentary to any other survey or institutional data and can be used in conjunction with the data received from module evaluations, as CLASSE does not at all ask any questions related to the lecturer as an individual, neither does it evaluate the competence of the lecturer(s). Table 10.1 provides an overview of the CLASSE surveys.

TABLE 10.1 CLASSE subscales and number of items

Part	Sections	No. of items
Part I	Engagement Activities	21
Part II	Cognitive Skills	5
Part III	Other Educational Practices	10
Part IV	Class Atmosphere	4
Part V	Supplementary Learning Activities	5
Part VI	Demographics	9

As shown in the table, the CLASSE surveys are each made up of 54 items divided into six sections. Since CLASSE is adapted from SASSE, items foreground engagement practices, particularly based on the work by Chickering and Gamson (1987) and Krathwohl (2002).

Items measuring Engagement Activities include matters such as class participation, and collaborative learning. Cognitive Skills include synthesis, analysis and practical application of theoretical knowledge, while Other Educational Practices and Class Atmosphere focus on behaviours and classroom environments respectively that have been proven to be conducive to learning. The five items grouped under

Supplementary Learning Activities ask about experiential learning, service learning, fieldwork, laboratory work and clinical teaching.

In addition to the standard 54 items, CLASSE also provides the lecturer of any given module the opportunity to add up to eight items. Because each module is different and includes unique facets, modes of administration and additional support services, the eight additional items allow for greater accuracy as a diagnostic tool.

CLASSE RESULTS

The CLASSE results are provided to lecturers in three sections, namely:

- Student respondent characteristics;
- Frequency distribution for student and lecturer responses; and
- Quadrant analysis.

The respondent characteristics report provides details of the demographic profile of the CLASSE student sample. Reflecting on student demographics provides an opportunity for lecturers to consider the varying contexts of all students in their class. Except for the visible demographics, such as race and gender, lecturers are provided with information on their students' home language, age, repeater status and whether any visible or invisible disabilities are present in the student cohort. The frequency distribution for the CLASSE report is based on the responses of the students on all the student engagement items in a specific module. The number of students, and the corresponding percentage of the sample, is given for each item. The frequency of participation in various educational practices reported by the students can be compared to lecturer(s) ratings to determine whether students participate satisfactorily in educational practices that the lecturer considers to be important.

The quadrant analysis provides a comparison of the importance rating provided by lecturers and the frequency rating provided by students in order to establish discrepancies or areas of agreement between lecturers and students. A comparison of the answers from students and staff points out educational practices that staff perceive as important but are being not being performed by students as often as desired. Staff can then have grounds on which to encourage students and positively affect engagement.

The most powerful section of the CLASSE report is the quadrant analysis, shown in Figure 10.1. The CLASSE data displayed in the quadrant analysis can be used to facilitate a conversation about where students and staff miss each other. The vertical axis displays the lecturer(s) responses regarding the importance of certain effective educational practices and behaviours, while the horizontal axis shows the

aggregated frequency at which students experience and engage in these practices and behaviours.

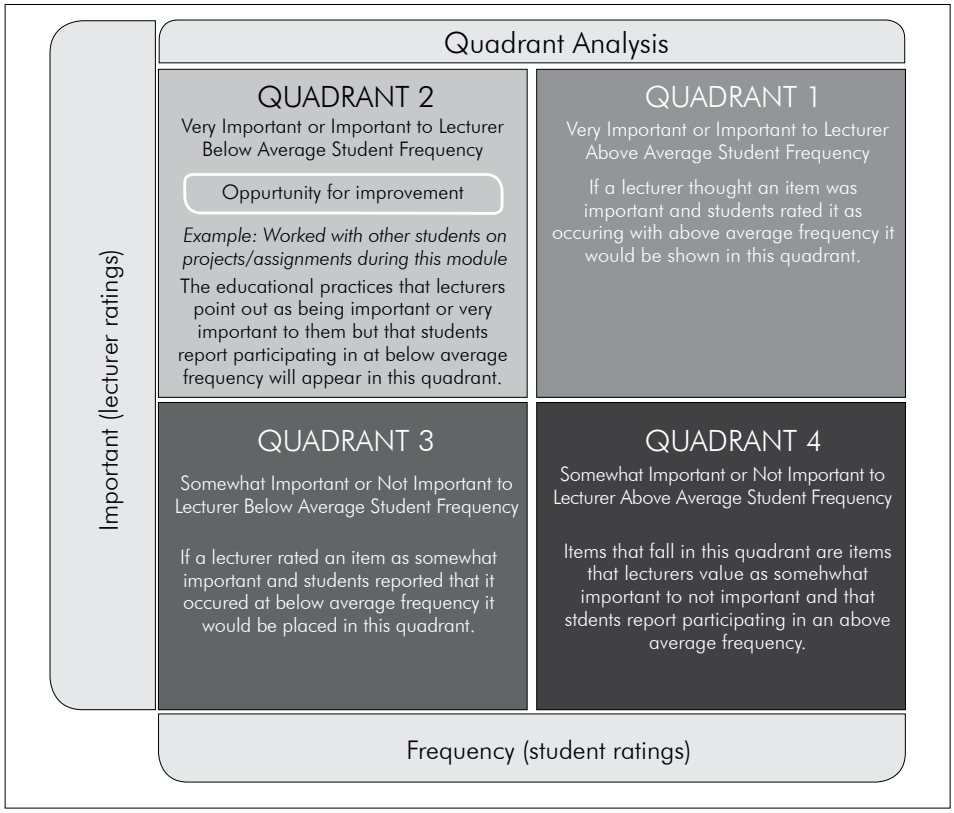

FIGURE 10.1 Quadrant analysis

The two upper quadrants represent items that lecturers value as either "Important" or "Very important", and the two bottom quadrants represent items that lecturers rate as "Somewhat important" or "Not important at all". The two left-hand quadrants represent items that students participate in at below average frequency. The two right-hand quadrants represent items that students participate in at above average frequency. If a lecturer deems an item as important or very important and students rate it as occurring frequently, it would be shown in the upper right quadrant, Quadrant 1. On the other hand, if a lecturer rates an item as somewhat important or not important and students report that it happens with low frequency, it would be placed in the lower left quadrant, Quadrant 3. If the importance rating of staff and the frequency reported by students are aligned, all the CLASSE items would fall into Quadrant 1 and Quadrant 3.

One of the most valuable ways in which the data can be used is to identify the items where students and lecturers are not aligned. Items that occur in Quadrant 4 are the ones that lecturers view as being "Unimportant" or "Moderately important" for student success, yet the students are reporting that they are participating in these behaviours quite often. Therefore, these items could potentially be taking crucial time away from more important activities and behaviours. Quadrant 2 shows items that are a result of student behaviours that occur with below-average frequency, but that the lecturer considers to be important for academic success, and is also considered the space of opportunities for improvement. These are the areas where the lecturer and his or her students miss each other. By identifying these gaps, the data can be used to improve teaching and learning practices in the context of their classroom and assist to improving student success rates.

IN-DEPTH ANALYSIS OF COURSE-LEVEL STUDENT ENGAGEMENT

To illustrate how CLASSE data can be used to impact the development of effective teaching and learning environments, we provide an aggregated case study of four universities' participation in CLASSE.

CLASSE was piloted in 2013 with a selected group of lecturers across ten courses/modules. In 2014, CLASSE was administered at the University of the Free State (UFS) across 15 courses/modules. In 2015, another South African university also used the instrument across 18 courses/modules, together with the UFS, bringing the total to 48 courses/modules in 2015. During 2016, three South African universities participated in the CLASSE, with a total of nine modules. For the purposes of this chapter where we aim to reflect on what we have learnt thus far about teaching and learning spaces through CLASSE administration, we therefore use data collected between 2014 and 2016 (since 2013 was a pilot year). The quadrant analysis presented in Table 10.2 is an example of how such analyses are presented to participating lecturers. The data presented show an aggregated picture of the 60 courses/modules represented through 4 089 students and 92 lecturers to allow us to determine tendencies. Seven faculties are represented through the 60 modules: Economic and Management (31); Education (1); Humanities (11); Engineering (6); Law (1); Health Sciences (1); and Natural and Agricultural Sciences (9). The items are presented with the count of modules where an item occurred most in brackets.

As CLASSE is a survey for individual modules, data are not usually combined and analysed as a combined data set. Instead, the analysed data, in the form of the quadrant analyses of each of the 60 modules, were analysed through frequency counts. That is, determining how many times a single questionnaire item appeared

in a quadrant. Table 10.3 shows a conditional formatting visualisation to highlight most-frequently to least-frequently used techniques. Darker grey areas indicate the largest portion of the sample for each activity, and lighter grey areas indicate the smallest portion of the sample. Through this approach, the integrity of individualised CLASSE data is not compromised. It is also possible to determine which items most frequently fall in a specific quadrant.

TABLE 10.2 Aggregated quadrant analysis for 60 modules

Importance (Lecturer rating)	QUADRANT 2	QUADRANT 1
	Asked questions in class [46] Participated in class discussions [42] Worked with classmates on projects during class [26] Combined ideas from different modules/subjects [24] Emailed lecturer [35] Discussed grades/assignments with the lecturer [42] Discussed ideas with the lecturer outside class [35] Received prompt/informative feedback [34] Assignments requiring more than one hour to complete [26] Spent more than 3 hours preparing for classes [24] Reviewed class notes before class [33] Studied with classmates [22] Easy to follow lectures [34]	Project requires using various sources [27] Attended class prepared [48] Worked with classmates on assignments outside of class [30] Tutored/taught other students [22] Used email to discuss assignments with classmates [29] Discussed ideas from class with others [34] Perceived the need to work hard [44] Received detailed information about learning outcomes [54] Received motivating interaction from the lecturer [51] Work required memorising [31] Work required analysing [57] Work required synthesising [56] Work required making judgements [43] Work required applying theories and concepts [58] Challenging assessment tasks [58] Attended class [54] Took notes in class [54] Attended a review session [29] Interested in learning course content [60] Comfortable talking to the lecturer [51] Enjoyed group work [27] Challenging course content [48]

Importance (Lecturer rating)	QUADRANT 3	QUADRANT 4
	Prepared 2 or more drafts of a paper/assignment [26] Included diverse perspectives in making points [38] Gave a presentation [39] Participated in a community-based project [49] Wrote papers longer than 5 pages [37] Participated in experiential learning [42] Participated in service learning [53] Participated in fieldwork [45] Participated in laboratory work [53] Participated in clinical teaching [59]	
	Frequency (student rating)	

After combining the analysed data, we can clearly see which items fall in to which of the four quadrants most often. First, the two quadrants where students and lecturers exhibit a degree of similarity (Quadrants 1 and 3), will be explored. The majority of the CLASSE items fall in Quadrant 1, where lecturers feel an item is important or very important, and students report a high frequency for the item. This indicates agreement among lecturers and students about the importance of these behaviours. Probably most significant is the high frequency in which lecturers and students agree on the importance of interest in learning course content (all 60 modules agree). Also showing particularly high frequency in Quadrant 1 are certain behaviours lecturers are responsible for, namely, sharing detailed information on learning outcomes; providing motivating interaction with students in classrooms; making sure content and assessments are challenging; and incorporating analysis, synthesis, application of theory, and making judgements into course content. Items showing particularly high frequency in Quadrant 1 for which students are primarily responsible include attending class and being prepared for class; realising the need to work hard; taking notes in class; and feeling comfortable to approach lecturers. The other items in Quadrant 1 are not as clear-cut. For example, Quadrant 1 shows that lecturers value, and students agree that they enjoy group work (27), however, when looking at the conditional formatting visualisation in Table 10.3 and considering where frequencies are distributed throughout the other quadrants, 24 modules placed this item in Quadrant 2, thereby indicating disagreement between lecturers' and students' responses. Similarly, while most lecturers place importance on – and most students admit to often practicing work requiring memorisation in Quadrant 1 (31) – a large amount of students representing 21 modules state that they practice this behaviour

even though lecturers do not deem memorisation important (Quadrant 4). Even though most lecturers and students agree on the importance of tutoring other students (22 modules), a large proportion of responses to this item falls in Quadrant 2 (19), as well as seven in Quadrant 3, and 11 in Quadrant 4. This implies that lecturers from 18 modules do not regard it important for their students to tutor or teach others, even though students from 11 modules engage in such behaviour.

Quadrant 3 shows items regarded as less or unimportant by lecturers as well as less frequent student behaviours. The five items forming part of the Supplementary Learning Activities subgroup are all present here. These items include participation in service learning, experiential learning, fieldwork, laboratory work, and clinical teaching. Since most participating modules do not engage in fieldwork, clinical teaching, or laboratory work, it is understandable that these items are not valued or practiced by lecturers or students. However, high frequencies in Quadrant 3 for participation in community-based projects, service learning, preparing more than one draft of an assignment, writing papers longer than five pages, and giving presentations might be cause for concern. Teaching others, as well as participating in service learning are considered high impact practices (see Chapter 5) for the potential of these practices to support the development of valued learning outcomes.

Quadrants 2 and 4 show where lecturers and students are 'missing' each other. Quadrant 2 shows several items that lecturers deem important or very important. Students report less engagement with these behaviours. This quadrant is therefore an important starting point when considering which changes could be made to align student behaviours with engagement activities. Some of the items in Quadrant 2 relate to interactions between students and lecturers. For example, even though most students indicated that they are comfortable talking to their lecturers and the lecturers deem this as important (Quadrant 1), lecturers would like students to engage more in emailing them, and discussing grades and ideas with them. Lecturers would also like to see students spend more time preparing for class and would like to see more active participation from students in class through having them ask questions, participate in discussions, and be able to follow the lectures with ease. Lecturers would further like to see more collaborative learning within and outside of classes, as well as more synthesis of interdisciplinary thoughts. The low participation of students and high value placed by lecturers on receiving/giving prompt feedback and doing/giving assignments requiring more than an hour to complete act as important prompts for reflection on how lecturers could adapt their assessment practices. Quadrant 4, indicating items which are less important or unimportant for lecturers, but for which students indicate high participation, do

not show any items with the highest frequency. However, students from 20 modules indicate that they participate often in work requiring memorisation, even when their lecturers do not agree on its importance.

TABLE 10.3 Conditional formatting visualisation of item-quadrant frequency

Item no.	Item	Q 1	Q 2	Q 3	Q 4
2	Asked questions in class	9	46	4	1
3	Participated in class discussions	14	42	2	2
4	Prepared 2 or more drafts of a paper/assignment	11	17	26	6
5	Project requires using various sources	27	15	12	6
6	Included diverse perspectives in making points	6	16	38	
7	Attended class prepared	48	10	1	1
8	Worked with classmates on projects during class	14	26	15	5
9	Worked with classmates on assignments outside of class	31	15	7	7
10	Combined ideas from different modules/subjects	21	24	9	6
11	Tutored/taught other students	23	19	7	11
12	Used email to discuss assignments with classmates	30	7	9	14
13	Emailed lecturer	2	35	23	
14	Discussed grades/assignments with the lecturer	6	43	11	
15	Discussed ideas from class with others	34	5	4	17
16	Gave a presentation	1	20	39	
17	Participated in a community-based project		11	49	
18	Discussed ideas with the lecturer outside class	1	36	22	1
19	Received prompt/informative feedback	18	34	8	
20	Perceived the need to work hard	44	10	1	5
21	Received detailed information about learning outcomes	54	3		3
22	Received motivating interaction from the lecturer	51	8		1
23	Work required memorising	31	1	7	21
24	Work required analysing	58	1		1
25	Work required synthesising	56	2		2
26	Work required making judgements	44	8	3	5
27	Work required applying theories and concepts	58	2		
28	Wrote papers longer than 5 pages	8	12	37	3
29	Challenging assessment tasks	60			
30	Assignments requiring more than one hour to complete	20	26	9	5
31	Spent more than 3 hours preparing for classes	23	24	7	6

Item no.	Item	Q 1	Q 2	Q 3	Q 4
32	Attended class	54	6		
33	Took notes in class	54	3	1	2
34	Reviewed class notes before class	19	33	4	4
35	Studied with classmates	20	22	10	8
36	Attended a review session	29	19	10	2
37	Interested in learning course content	60			
38	Comfortable talking to the lecturer	51	7		2
39	Enjoyed group work	27	24	5	4
40	Challenging course content	48	6	2	4
41	Easy to follow lectures	24	34	2	
42	Participated in experiential learning	1	16	43	
43	Participated in service learning		7	53	
44	Participated in fieldwork		14	45	1
45	Participated in laboratory work	2	4	53	1
46	Participated in clinical teaching	1		59	

USING CLASSE RESULTS FOR EVIDENCE-BASED EMPOWERMENT

Once the lecturers receive their module CLASSE reports, they have the benefit of empirical evidence of what is happening, or not happening, in their classrooms. Based on the results, and especially those presented in Quadrant 2, one can then determine what specific improvements will be needed based on what is seen at the class level. Staff may be able to evaluate and reflect on their teaching styles and adjust them accordingly in order to expose students to activities that can improve their learning efficiency (Ouimet & Smallwood 2005). It is also a tool for staff to see where they have been successful in the motivation, inspiration and influence of student learning. Lecturers can also use the information obtained from CLASSE to start discussions and debates concerning teaching and learning amongst themselves. In essence, students give feedback through the CLASSE that could help staff understand their learning processes and influence the practices of teachers.

Turning back to our quadrant analysis of 60 modules as an example, we share some practical next steps.

Online resources to facilitate evidence-based empowerment

To facilitate the effective reflection for the lecturer on their CLASSE results or to facilitate an academic staff development conversation the SASSE team has development an

interactive website. The website links 50 Student Engagement Techniques (SETs) developed by Elizabeth Barkley (2010) to the items in the CLASSE. The lecturer can click on "Using your Quadrant analysis" on the website https://www.ufs.ac.za/sasse. The website connects all relevant SETs to each individual item in the survey. Lecturers can select the item that they wish to improve upon, and inspect the relevant SETs relating to the item. Once a SET is selected, a summary of the SET is provided, with a reference to the full text. In the full reference, the lecturer is provided with step-by-step instructions of how to contextualise the technique and how to implement it in their classroom.

It is critical to emphasise that the aim is not to create a mechanistic, decontextualised development approach. Rather the website has been developed to create a resource that lecturers and academic staff developers can use to have deeper conversations on what kind of strategy would work best in the context of their specific classroom with their specific students.

Quadrant 2 in our 60-module example provides several items where Barkley's SETs might provide innovative ways of increasing student behaviours in areas of engagement valued by lecturers. For example, if a lecturer wishes to promote student participation in class, Barkley proposes eight different exercises ranging from introducing visual or physical artefacts as conversation starting point, to having split-room debates, where topics are discussed from different viewpoints.

Towards an evidence-based approach to academic staff development

Besides focusing on Quadrant 2 to identify techniques to improve engagement techniques in classrooms, the CLASSE, by itself or in conjunction with other data sources, provide data as starting point for academic staff development conversations. For example, from our quadrant analysis example of 60 modules we can identify three avenues of conversation. First, using Quadrant 1 to reflect on the quality of teaching, learning and assessment happening in class. Similar to the CLASSE findings, data from the LSSE and SASSE point to a misalignment between lecturers' low emphasis on memorisation and students thinking it is expected of them (see Chapter 4). Conversations about integrating Bloom's taxonomy, on which these items along with memorisation are based, into teaching, learning and assessments could impact the quality of students' learning.

Second, the items listed in Quadrant 3 serve as reflection about whether lecturers' sense of important engagement activities are consistent with what we know from research (e.g. Umbach & Wawrzynski 2005). Our 60-module example shows that many lecturers do not consider it important for students to teach others or to present

work to others; to write longer papers; to include diverse perspectives when making points; or to participate in community and/or service learning. While disciplinary differences could to some extent explain why these activities are not considered important, the developmental impact of these activities need to be considered before dismissing them as unimportant, because in doing so, students also tend to dismiss them.

Finally, items from the quadrant analysis could guide reflection on what is in whose power to change. For example, if lecturers want students to participate more in class, they have the prerogative to introduce innovative activities to promote this behaviour. Similarly, if lecturers want students to engage more with them through email, or discussions about grades or other ideas, they could extend their consultation hours, explicitly invite students to meet with them, or maybe initiate an email invitation.

Having reflected on an in-depth analysis of the typical areas in which lecturers and student tend to miss each other, we also wanted to reflect on the importance of considering the implications of the use of evidence in an academic staff development conversation. The reflection is structured using the following guidelines (NSSE 2015):

1. **Make sure lecturers and staff understand and endorse the concept of student engagement**
   Staff who are less familiar with assessment in general and the concept of student engagement should be convinced of the value of CLASSE results for improving teaching and learning.

2. **Understand what CLASSE data represent and use the results wisely**
   Understand that CLASSE measures student engagement in a specific class and at a specific time. The results cannot be generalised to all the classes which the lecturer teaches, but should rather be viewed as an opportunity to encourage reflection within a specific context.

3. **Report CLASSE data in a responsible way and make sure staff see the numbers in context**
   Use CLASSE data to encourage staff to make improvements. Encourage the staff members to use the website or other teaching and learning resources to find solutions for their specific context.

4. **Link CLASSE results to other institutional and evaluation data relating to the student learning experience**
   Student engagement data are most valuable when combined with other evidence. These can take the form of module evaluation data or qualitative evaluation data of the student learning experience in the module.

5. **Don't go at it alone**

   Encourage staff to share CLASSE results with each other and to form or join conversations of faculty groups or communities focusing on improving teaching and learning. The positive impact of CLASSE results will be multiplied if the data can be used by groups of staff who are working on improvement efforts around campus.

CONCLUSION

The chapter introduced the CLASSE and how it can be used at a course/module level to promote student engagement and evidence-based improvement in teaching and learning. The CLASSE promotes student agency by giving students an opportunity to have a say in the quality of their own teaching and learning at the course/module level. It allows academics as well as heads of department to monitor the extent to which students are experiencing effective educational practices that have been implemented in specific courses/ modules. It creates an opportunity for careful diagnosis of the climate in the classroom and creates an opportunity to build the pedagogical relationship between lecturers and students.

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11 STUDENT ENGAGEMENT IN SOUTH AFRICAN HIGHER EDUCATION: TAKING STOCK AND MOVING FORWARD

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It always seems impossible until it's done – Nelson Mandela

INTRODUCTION

Improving student success in higher education is an essential but daunting task. The contributors to this book do not underestimate the challenges to overcome, yet are cautiously optimistic about making progress in addressing them, and offer actionable, material suggestions toward this end. Their analyses are grounded in evidence and first-hand experience with developing and implementing promising policies and practices at the institution, sector, and national levels. Moreover, their reflections are most timely as the stakes have never been higher. While the access challenge has not been fully met, notable progress has been made. But access without degree completion is a broken promise. And degree completion without acquiring the knowledge and proficiencies required to survive and thrive in a dynamic global economy is a hollow, meaningless achievement.

This chapter synthesises the two major student engagement themes – what students are doing and how institutions are creating environments conducive to engagement – presented in the previous chapters and highlight what we have learnt from the data. The chapter closes with recommendations for how to foster greater levels of student engagement and success in South African higher education.

STUDENTS' EDUCATIONAL BEHAVIOURS

Arguably one of the most pressing current demands in South African (and international) higher education is to understand our students and their learning experiences in order to direct efforts towards increasing student success. From an engagement

perspective, student success extends beyond passing grades and includes the development of cognitive and social-emotional competencies that will prepare graduates to apply what they have learnt in the 'real world'; to make evaluations and judgements about information and sources of information (including numerical and statistical information); to be able to analyse and synthesise information from various sources; to evaluate their own views in relation to others'; and to embrace the variety of perspectives usually accompanying diverse people. Our definition of success also includes acquisition of other proficiencies that speak to the demands placed on 21st century graduates by employers. Amongst others, these include being able to actively participate in a team; being able to work with and learn from diverse people and environments; and the ability to recognise and live out the social responsibility of a democratic citizen.

The sections that follow describe in which engaging activities students actively participate. We explore the kinds of academic challenges they are presented with, how they are learning with their peers, and the various effective educational practices they experience.

Academic challenge

Taken together, the chapters in this book offer a fair amount of insight into students' development of cognitive skills as represented through their scores on the Academic Challenge scales of Higher-Order Learning; Reflective and Integrative Learning; Quantitative Reasoning; and Learning Strategies.

First, the South African Survey of Student Engagement (SASSE) results presented in Chapter 2 show that students report a relatively high (mean of 40 out of 60) development of Higher-Order Learning consisting of the ability to analyse, apply, evaluate, and synthesise information through their studies. When looking at *how* these cognitive skills are developed, students report higher mean scores for Higher-Order Learning when they feel challenged by their subject material, when they spend more time reading and preparing for class, and when they are assigned more writing tasks. Chapter 9 also shows that when students prepare for class they perform better academically, as one might expect. That said, a summary of 60 modules in which the Classroom Survey of Student Engagement (CLASSE) was administered shows that these lecturers do not deem writing assignments longer than five pages as important, nor do the students indicate that they are given many such assignments (Chapter 10).

Second, even though there is a slight increase from first-year to senior year students' mean scores on the Reflective and Integrative Learning indicator, the participation in these activities remains low (mean of 33 out of 60). The behaviours making

up this scale include connecting learning to societal problems or issues; including diverse perspectives in discussions or writing assignments; examining strengths and weaknesses of own views; seeing things from another's point of view; connecting ideas from modules to prior experiences; and learning something which has changed the way they understood issues or concepts. The analysis of one university sample in Chapter 9 showed that none of the items in the Reflective and Integrative Learning scale impacted on students' average marks. Further, Chapter 2 reported that less than half of the students connect what they learn to societal issues.

The final take away from the data about Academic Challenge, is the relatively low expectations students have for developing quantitative reasoning, or using these competencies (Chapters 2 and 3). The Quantitative Reasoning indicator captures whether students are able to draw conclusions based on the analysis of numerical information; evaluate others' conclusions of numerical information; and translate numerical information to real-world issues. In an increasingly data-driven world, where information from different sources (some more reliable than others) are instantly available via various technological means, it is essential to be able to make informed judgements about this information. The low mean scores for both students' expectations and application could be interpreted bearing in mind the general lack of connecting what they are learning to the real world as indicated earlier. In other words, although the chances are good that they are practicing quantitative reasoning in their daily lives, students might not make the connection between what they are doing and the items in a survey administered in the context of higher education.

Learning with peers

The two indicators relevant to the Learning with Peers cluster of competence include Collaborative Learning and Discussion with Diverse Others. Regarding Collaborative Learning, Chapter 3 showed that students entering university do not expect to collaborate much with other students. However, the SASSE shows an increase from their expected engagement in Collaborative Learning to their actual engagement in Collaborative Learning and even more so as students progress from their first to senior undergraduate years (Chapter 2). Chapter 5 also shows that 73% of students report being asked to participate in group work. While these findings look promising, there are still some improvements to be made. For example, data from the CLASSE (Chapter 10) tell us that many of the lecturers from the 60 modules would like to see more in-class collaborations between students; at the same time, about a third of the lecturers express the view that it is not important for students to work with classmates on assignments during class.

Upon starting at university, many students expect to interact with diverse others. In fact, the SASSE results in Chapter 2 show that over 60% of students indicate that they have regular interactions with people who are different from themselves in terms of socio-economic status, race, religion, or political views. These students also report more positive interactions with other students and staff and find the campus environment more supportive. Chapter 9 also shows that students who engage with others who differ from them in terms of socio-economic status and race, perform better academically.

Effective academic behaviours

The data reported in Chapter 9 show us that some behaviours have a direct positive impact on students' academic performance. These include asking questions in class; preparing for class; talking to lecturers about career plans; explaining subject material to others; perceiving the academic content as challenging; and engaging with diverse others. Finding ways to build on these behaviours, as well as developing other effective academic behaviours to impact students' pathways to success are pivotal focal points to enhance engagement.

In sum, the chapters in this book have identified several effective behaviours students are doing which are increasing their engagement and helping them navigate successfully through higher education. These include:

- preparing for class;
- reading and writing academic material;
- feeling challenged;
- participating in class discussions and asking questions;
- talking to lecturers about careers;
- participating in practical work and group work;
- increasing collaborative work with peers in time; and
- interacting with diverse others.

ENVIRONMENTS CONDUCIVE TO ENGAGEMENT

While students' behaviours, agency and motivation are important contributors to their levels of engagement, creating an educational environment that enables students to actively engage in forms the foundation of student success. Three areas of environmental support highlighted throughout the book seem to be especially important: students' views on how supportive their educational environments are; the relationship between students and lecturers; and classroom environments.

Supportive campuses

The information presented in Chapter 2 showed that students generally report mixed views as to whether their campus environments are supportive of their success. Their general perception of the quality of interactions with other students, academic staff and non-academic staff seem to be of good quality. However, while most students feel satisfied with the quality of their interactions with other students and academic staff, only half indicated that the quality of interactions with administrative and/or support staff were good.

Students who reside on campus report slightly higher quality of interactions with student support services, and experience notably more institutional emphasis on students' well-being, attending enriching events, studying and academic work, as well as providing academic support (Chapter 7). In fact, living on campus not only makes a difference in how supportive students perceive the university to be, it also is positively related to the frequency with which students interact with diverse others as well as the frequency of interactions with lecturers (Chapter 2). Compared with seniors, first-year students perceive the campus as more supportive (a finding that mirrors national data from the United States), more frequently apply learning strategies, and are exposed more often to effective teaching practices. In Chapter 7 one area that needs attention is pointed out: while most students feel that their institutions place a lot of emphasis on studying and academic work, they do report that the institutions are not providing enough support for them to perform well academically. Another area where most student responses signal a potential challenge is relatively low scores on whether their institutions place emphasis on providing support for their overall well-being.

Interactions between students and academic staff

When students enter higher education, they do not expect to spend much time interacting with lecturers (Chapter 3 reports a mean of 30 out of 60). These interactions refer to talking about their career plans, academic performance, or discussing ideas outside of class with lecturers, as well as working with academic staff members on projects beyond academic work. Even more worrisome is that the majority of students answer "Never" or "Sometimes" when asked whether they actually do interact with academic staff in these ways (Chapter 2). The positive effects of student-lecturer contact has been well documented internationally (e.g. Kuh, Kinzie, Schuh & Whitt 2010; Mayhew *et al* 2016); in fact, the SASSE findings reported in Chapter 9 show the positive relationship between students' academic performance and their discussions with lecturers about their career plans.

Adding to the complexity of student-staff relationships is a lack of alignment and understanding between both parties. For example, when comparing the Lecturer Survey of Student Engagement (LSSE) analysis with SASSE findings, lecturers seem to have an unrealistic view of students' life demands, for example, expecting students to spend a significant amount of time preparing for class and notably overestimating the amount of time students spend socialising or relaxing. That said, the emphasis lecturers place on class preparation might have some salutary effects, considering the positive relationship this behaviour has with academic performance (Chapter 9). Lecturers, academic support staff, or peer facilitators should, therefore, help students to apply more effective and time-efficient strategies to optimise class preparation.

Effective teaching practices

Teaching and learning in classrooms, laboratories, and studios continue to be the venues in which most students are likely to be academically challenged. Chapter 9 pointed to a positive relationship between students' academic performance and effective teaching practices, including the provision of detailed feedback shortly after assessments; when module outcomes and requirements are clearly explained; and when module content is presented in an organised way. For some, these practices might seem obvious and foundational as classroom practices. Even so, SASSE results show that more than 20% of students indicate that their lecturers do not clearly explain subject/module outcomes and requirements; about one fifth (19%) report that their lecturers do not regularly present sessions in an organised way, and a third (34%) say they do not get detailed feedback in a timely manner.

It is somewhat surprising that SASSE data did not find statistically significant relationships between students' academic performance and making class presentations or working with others on projects or assignments. Nor was the Reflective and Integrative Learning scale positively related to academic performance as measured by students' average marks. Perhaps this is due in part to few such practices being used in classrooms. For example, the CLASSE analysis shows that student presentations are not valued by lecturers nor do students get much practice in making presentations. This points to the absence of alignment between pedagogy and desired outcomes such as deep learning as discussed in Chapters 2, 4 and 9.

Also, as explained in Chapter 4, academic staff still primarily use lecturing, with minimal inclusion of group discussions as teaching methods. Experiential learning opportunities, including giving presentations, independent student work, and showing movies/videos rarely or never happen according to the LSSE respondents. Given that lecturers indicate they spend an average of five hours per week on working

to improve their teaching (which includes self-reflection, meeting with teaching consultants, attending teaching workshops, and conducting research on their own modules/subjects), it is worrisome that the primary mode of delivery is still traditional lecturing. The CLASSE analysis in Chapter 10 also tell us that lecturers would like to see students participate more in class discussions, ask more questions and work more with others during class time. However, if the teaching strategies do not change to create environments more conducive to such engagement, it is difficult to see how it can be expected of students to engage and participate more.

Students from 20 of the 60 modules in which the CLASSE was administered indicated that their modules emphasised memorisation, even though lecturers reported they did not place much value on memorisation (Chapter 10). This finding is corroborated by the information in Chapter 4, where a comparison of SASSE and LSSE findings show a mismatch between lecturer and student perspectives on the emphasis placed on memorisation. More experienced lecturers also rely less on memorisation and more on developing other cognitive skills; however, these lecturers are also less inclined to adopt new teaching methods.

Consider, too, that almost half of the lecturers responding to LSSE do not think it is important for students to include diverse perspectives in module discussions. In addition, more than a third do not think it is important for students to develop an international perspective or to conduct research with lecturers, or to participate in service learning or community projects (Chapter 4). The findings summarised in Chapters 5 and 10 corroborate these patterns. With the current debates on the decolonisation of higher education curricula, teaching, and institutional culture in general emphasising the value of including diverse perspectives has never been more important to fostering a civil society and equipping students to work effectively with people from backgrounds different than their own.

Taken together, these findings highlight the importance of efforts underway to improve the teaching and learning skills of academics, perhaps in the form of postgraduate diplomas or continuous professional development workshops.

In sum, the chapters in this book highlight the following environmental factors that make a positive impact on students' engagement:

- Even though the student-staff interaction indicator score is quite low, relationships between students and lecturers seem good. Additional inquiries into how to use positive relations between students and staff are warranted.
- Living on campus is related to mixed influences on student engagement. It is therefore important to further explore what the contributing factors are to this group's engagement and to find ways of expanding these factors to other students.

- As expected, engaging pedagogical approaches are positively related to students' academic performance.

However, from the student perspective, the university environment could do more to address their academic and social needs. While students perceive they are expected to perform well academically, the data do not show that students feel connected to their lecturers beyond the classroom. Further, the quality of relationships with non-academic staff is rated quite poorly, which could impact whether or where students go to find help.

Particular contextual challenges to consider

The data from this book encourage reflection on some specific contextual challenges, including the persistent racial and generational gaps in how students are experiencing financial stress; supporting first-year students' transition from high school to university as well as developing their learning from first to subsequent years of study; and developing academic staff as well as nurturing the student-staff relationship. We will touch on each of these briefly.

From what we know from the Financial Stress Scale, most students – particularly black African and first-generation students – have a persistent struggle with making ends meet financially. For example, the scale shows that black African – and particularly first-generation black African students from both genders – worry most about paying university fees and have been affected most in terms of food insecurity. In fact, first-generation students seem to be most affected even within racial groups. For example, there is about a 20% difference between black African first- and non-first-generation students when students indicate that they have never or sometimes run out of food without being able to buy more. Yet, even when faced with financial stress, and in many cases hunger, only half of students would consider dropping out because of financially-related reasons.

Regarding developmental growth from first year to senior undergraduate years, the BUSSE data confirm the so-called "freshman myth" phenomenon, where students overestimate their abilities and preparedness and underestimate the challenges higher education presents. However, some expectations students have as they start their higher education studies turn out to be realistic. For example, students generally do not expect to engage often in collaborative learning activities, frequently interact with staff or have serious discussions with peers from backgrounds different from their own. The SASSE data collected later in the same academic year confirm that students behave consistent with these expectations. In general, first-year students

perceive institutional environments to be more welcoming, and as mentioned earlier, use learning strategies more often, and experience more effective teaching practices. An optimistic interpretation of this pattern of results may in part be a function of the widespread movement by institutions to increase transitional support for first-year students.

Participating in deep learning activities enables students to understand the purpose, meaning, and significance of what they are learning and requires an active learning process involving the generation of ideas, pattern recognition, and making evaluations about the logic of the argument (Entwistle 2000). Only slight variations were documented in the development of a capacity for deep learning between the first and later years of study, and no differences in students' ability to evaluate and create knowledge. Indeed, the results point to an overemphasis on memorisation, contributing to surface learning which is orthogonal to deep learning.

The LSSE analysis shows that lecturers consider the development of students' cognitive skills to be only somewhat important. This suggests the planning of module and course outcomes, assessment, and consecutive year curricula within disciplines warrant attention to efforts that can improve cognitive development and the associated deep learning competencies. This should include, for example, reducing the amount of lecture time and increasing the use of more engaging teaching and learning approaches. Another factor undermining the development of these skills is the disconnect between lecturers and students on how much emphasis is placed on memorisation within their modules as noted earlier. According to Mayhew *et al* the importance of moving away from the dominant lecture format to more frequent use of engaging pedagogies is underscored in the most recent synthesis of research about what matters to student learning in higher education:

> Seemingly irrefutable evidence demonstrates that active and engaged learning practices yield substantial benefits over traditional lecture-based formats in which students passively receive information. These outcomes include greater verbal and quantitative skills, subject matter competence, cognitive and intellectual skills, openness to diversity, intercultural competence, leadership, citizenship, and moral development (Mayhew *et al* 2016:550).

That some lecturers do not value presenting diverse or international perspectives in their modules is also worrisome, particularly considering the benefits that accrue to students who interact with diverse others. Recognition and appreciation of diversity – whether encountered through curricula, teaching and/or learning methods, assessment, or personal interactions – are fundamental aspects of higher-order and reflective learning. How else can students learn to make evaluations or judgements

if not given different types of information; how will they learn to respect viewpoints if not confronted with different opinions; or how will they learn to form their own reasoned opinions if not challenged by others'?

Another finding for academic staff to reflect on is the type of relationship they aim to have with students. The items measuring student-staff interaction all refer to discussions about personal development (e.g. career plans, academic performance, or working with staff on other projects), or co-curricular conversations on subject-related topics. If, as the students indicated, they are comfortable talking to their lecturers and the lecturers would like more such interactions with their students, as they indicated, more could be done to help create student-staff relationships, which could impact how students navigate through their studies. Building on this relationship is crucial for the developmental potential such interactions with lecturers might hold for students, but also because interactions with lecturers could act as gateways to discovering more about institutional and disciplinary cultures and resources. As Mahat and Goedegebuure (2014) stated, students are the least informed of all stakeholders in terms of higher education choices, outcomes and processes. Enhancing the relations between students and staff might therefore also have the salutary effect of making students more valued by their institution.

THE WAY FORWARD

The common theme throughout all the chapters in this book is that student engagement is an internationally recognised construct and set of student and institutional behaviours associated with student success. The contextualisation of engagement measures to different countries is one of the ways in which we are coming to understand undergraduate student experiences of diverse populations across the world. In addition, understanding student experiences and performance has become increasingly important to restore public confidence in higher education (Kuh *et al* 2015). This is especially true in South Africa where the value and purpose of higher education is being considered in terms of its funding, its quality, and relevance to the post-colonial African context.

The analyses offered in this book provide evidence that focusing on ways to increase student engagement can make a material positive difference to students' chances of success. The following themes summarise some of the main challenges and opportunities that lie ahead synthesised from the information reported in the various chapters.

Developing a systemic understanding of the student experience

More intersectional analyses are needed to get a more granular understanding of how different student populations experience higher education. The SASSE project now involves 19 higher education institutions, 15 of which are public institutions, three private, and one international institution. Thus, now is a propitious time to further expand and support a community of practice that develops and tests interventions based on engagement data. Keys to such an effective community of practice are developing a common engagement language and finding ways of making student engagement data consequential so that it changes institutional policy and practice. By "consequential" we mean gathering data that answer important questions about student and institutional performance and turning that information into evidence that informs and guides improvement efforts. Another characteristic of consequential assessment is communicating the evidence in meaningful ways to various audiences including what the institution is doing to enrich student accomplishment.

Understanding and supporting students entering higher education

The introduction of the Financial Stress Scale allows institutions to understand the challenging, non-negotiable financial pressures that severely limit students' chances to survive and thrive during their higher education studies. Three promising areas of research with the BUSSE are: (1) the use of the data in academic advising; (2) early warning systems; and (3) predictive analytics. The University of the Free State (UFS) SASSE team has generated contextualised advising reports which provide information on themes considered important to advancing student success. These faculty reports, generated by using BUSSE data, provide faculties with profiles of incoming cohorts and assist to address the self-reported transitional difficulties identified by students. However, this project is still at an early development stage. Predictive analytics is a key focus of universities, such as Georgia State University (2016), that have successfully reduced the achievement gap between different groups of students, especially those from historically underserved backgrounds. The use of engagement data in predictive analytics is at an early stage. The Siyaphumelela programme, funded by the Kresge Foundation, supports five South African institutions to improve their institutional capacity to collect and analyse student data (including student engagement results) and to promote the use of data analytics to improve student success (Siyaphumelela n.d.). The ethical and professional use of this information is currently being considered.

Building academic capacity through student engagement

Chapter 4 offered some ideas of how LSSE data could help inform interventions springing from a policy initiative such as the University Capacity Development Grant. The use of LSSE data in systemic and institutional staff development needs to be explored in a more intentional way across institutions. Based on the data shared, innovative methods to develop and support academic staff need to be implemented. This particularly relates to educating lecturers on 'what works' in terms of teaching methods and strategies. It also implies sensitising lecturers to possible misconceptions they and their students might have about each other, as well as learning and relationship expectations. To do this essential work well will require adequate technological and academic support to create sustainable learning environments conducive to engagement.

Developing South African high-impact practices and pedagogy

The initial analysis of students' participation in high-impact practices highlighted the need for cross-institutional analysis to assess which of the proposed potential high-impact practices will be effective in the South African context. The identification of high-impact pedagogical practices (Chapter 9) will require a similar cross-institutional analysis to see if there are classroom practices that can make a difference to student success.

Furthering evidence-based development and change

The analysis and preliminary success with the use of the CLASSE suggest that combined with the development of innovative online support, the use of student engagement evidence could be enhanced. Making evidence about student engagement consequential is essential to cultivate a culture of institutional ownership of assuring quality, as contrasted with the compliance mentality that tends to dominate when responding to accountability requests and publicly sharing information about student and institutional performance. In a culture of ownership, evidence about students' experience and institutional performance is interpreted, integrated and reflected on to facilitate a holistic understanding from which to formulate implications for action (Kuh *et al* 2015).

Designing and organising for student success

Edward Deming is often credited with asserting something akin to the following: "every system is perfectly designed to get the results it gets". This observation raises the question of how higher education institutions can be re-engineered to produce

different, better results. We posit that five design and organising principles adapted from Kuh *et al* (2010) are indispensable to realise the needed systemic changes required to advance the student engagement and success agenda in South African higher education. Each of these interventions must be adapted and implemented with fidelity to fit local contextual features.

Principle 1: Feature student success in the institution's 'living' differentiated mission and its lived educational philosophy

For South African higher education to produce different results, the types of institutions and their missions need to be differentiated in order to provide a guiding vision for the staff in these institutions. A focus on student learning and success should be clarified and translated into plain language for all academic and support staff as well as students so that it is lived out throughout the institution and informs everyday practice. To ensure that this mission is enacted, senior leadership must publicly champion the importance of student success. The development of this mission must be underpinned by an education philosophy that reflects the importance of curriculum contextualisation and pedagogical innovation appropriate for the institutional and national context. In addition, as recommended in Chapter 6, allocating specific roles to relevant people will add structure to the pursuit of engagement and student success, while also keeping staff from feeling overwhelmed.

Principle 2: Make talent development the central tenant of the institution's operational philosophy and sector mission

Universities are the engine rooms of the knowledge economy across the globe because they develop talent (Astin & Antonio 2012; Merisotis 2015). Talent can only be developed if high expectations are set for everyone in the institution – students as well as academic and support staff.

Firstly, the process of talent development starts with knowing your students. Information presented in Chapters 2 and 5 suggest that the assessment of higher-order skills needs to be expanded in institutions and that high-impact practices need to be introduced to help graduates acquire the attributes needed to grow the economy and allow individuals to participate fully in the growing economy. The performance standards we set for our students need to be high but attainable and consistent with their preparation levels.

Secondly, higher expectations of our students will require more investment in innovatively planning to develop the talent of staff – their pedagogical approaches and related skills – to create appropriate quality support that optimise students' chances of attaining a quality education. South African higher education

institutions are going to have to find innovative ways of bringing staff and students together, especially after the student protests, which indicated the need for greater mutual understanding.

Thirdly, human resource practices need to focus on attracting, socialising and rewarding competent people. This means recruiting academic and support staff who are committed to student learning and success, and aligning the reward system with the student success mission, values and priorities of the institution. Institutional leaders must be appointed who are right for the times, campus culture and institutional trajectory. Student-centred policies and practices must be central to academic and support services. A focus on talent development requires investments in teaching and learning centres and activities that contribute to student success such as opportunities to apply their learning (service learning, internships, undergraduate research projects, etc.). Budgeting models and processes that privilege student learning processes are also needed.

Principle 3: Create learning environments that value and promote inclusion and educational enrichment through equity-minded policies, programmes, and practices

Cultivating an inclusive equity-minded institutional culture that embraces and promotes diversity in all its forms is foundational to engage all students at high levels and support their learning and success. The physical plant aspects of a learning environment must be addressed by designing multi-functional learning spaces that allow for quick changes in furniture arrangements during classes to facilitate active and collaborative learning. Modifying library spaces to accommodate a wide range of learning preferences from formal to informal, or face-to-face to online learning. The curriculum design must encourage and support the full participation of students with disabilities and students with varying levels of preparedness. The focus on decolonisation highlights the need for the curriculum content that includes a diversity of voices and incorporates high-impact learning experiences that illustrate the relevance of learning for contemporary challenges. An inclusive culture also requires the development of a prominent educational and support role for student affairs to help foster co-curricular environments that promote inclusion, cohesion and student success.

Principle 4: Cultivate an ethic of continuous improvement and collaboration

Educationally effective institutions are characterised by positive restlessness (Kuh *et al* 2010). They sense that at any given moment one or more aspects of student and institutional performance can be improved. This animating impulse is not born out of institutional inferiority or insecurity, but rather confidence and commitment to high performance.

Consistent with this principle, the Quality Enhancement Project of the Council on Higher Education with its appreciative inquiry approach is a systems level example of how institutions can build on and develop confidence in their initiatives by using evidence to continuously improve and contextualise interventions to be effective and efficient. By integrating student engagement data into monitoring and evaluation frameworks, institutions can monitor the quality of the student experience. A critical component of positive relentlessness or an improvement-orientated culture is recognising the need to 'sunset' less effective programmes and activities to support high-priority initiatives. Improvement-orientated institutions encourage and reward cross-functional activities focused on student success and tighten the philosophical and operational linkages between academic and student affairs as suggested in Chapter 7. This collaboration enables them to harness expertise and resources, especially in resource constrained circumstances. These institutions are also responsive to the needs of their surrounding communities.

Principle 5: Clarifying the pathways that maximise student success

Institutions focused on promoting student success provide alternative unfettered pathways that students can follow to reach their educational objectives, and make students aware of these pathways through intrusive academic advising and associated practices. This will require frontloading resources to smooth the transition from school to higher education and also for initiatives that help smooth and lend coherence to transitions between different years of study and also between institutions. South African higher education has made some strides in developing first-year experience models that have been shown to provide students with clearer communication regarding what it means to be successful. The authors of this book highlight that more needs to be done to provide support to senior students through improved pedagogical approaches as well as the integration and scaling of high-impact practices in undergraduate education programmes. Institutions also need to consider the level and type of support needed by students facing additional challenges, such as students with disabilities, first-generation students, or students entering higher education from poor socio-economic circumstances. Student engagement data from SASSE and its sibling surveys can be used to develop a more nuanced, evidence-based approach to orientation and transition programmes for first-year and senior students. New developments in the field of predictive analytics and academic advising and coaching are promising interventions to address the challenges facing students and institutions.

LAST WORDS

This book started out by asking: What would a transformed higher education system look like? What is the contribution of higher education to a country? How do we create institutions that are ready to welcome and educate a wide range of students from diverse backgrounds? And how do we create institutions that challenge our students to develop the next big idea and address 21st century challenges while providing them with the support that enhances their chances of success? While the aim of the book was not to provide answers to these grand tour, philosophical questions, we are confident that student engagement is a central catalyst to this work and to students' pathways to success. Further, through providing a birds-eye view of what is happening in higher education through synthesising data from various engagement information sources, this book lays out some ways to shape an evidence-based culture of decision-making within higher education. Equally important, the data featured in this volume provide a foundation for much needed reflection and discussions on the questions raised above as well as about more practical approaches to enhance engagement and student success.

The last remaining question is whether we have the will to do so. The only acceptable answer is, we must.

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Engaging Students is the first comprehensive manuscript on research into student engagement in South African higher education. Each of the chapters has a clear, distinguishable focus and makes an original contribution in and of itself, while retaining the central focus on student engagement. The book provides a rich, informative picture of the current state of student engagement evaluation, while also highlighting challenges and opportunities for future advances. A particular strength of this publication is its emphasis on the importance of taking evidence-based decisions, and showing how the South African Survey of Student Engagement (SASSE) can provide the evidence for well-informed changes in policy and practice in order to enhance student success.

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