

## Enhancing success in higher education by measuring student engagement in South Africa

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### Abstract

Improving student success and throughput rates are key challenges facing South African higher education. International research shows that a focus on student engagement can help to enhance student learning and other desired outcomes as well as the efficiency and effectiveness of higher education systems. The paper documents the psychometric properties of the South African Survey of Student Engagement (SASSE), providing a sound basis on which to promote large scale studies of student engagement-related interventions. Using this contextualized measure will allow South African institutions to engage in national, as well as international benchmarking with countries such as the United States, Canada and Australia.

### Opsomming

Die verbetering van sukses en deurvloeiakoerse is een van die sleutel uitdagings wat Suid-Afrikaanse hoër onderwys in die gesig staar. Internasionale navorsing toon dat student betrokkenheid 'n kragtige instrument kan wees om student sukses en die effektiwiteit en doeltreffendheid van die hoër onderwys stelsel te verbeter. Die psigometriese eienskappe van die Suid-Afrikaanse Opname vir Studente Betrokkenheid (SAOSB) word bespreek en daar word geargumenteer dat die eienskappe 'n goeie basis lewer vir die studie van studente betrokkenheid. Die gebruik van 'n gekontekstualiseerde instrument sal Suid-Afrikaanse instellings in staat stel om nasionale afsnypte (benchmarks) te ontwikkel wat internasionaal vergelyk kan word met die Verenigde State, Kanada en Australië.

### 1. Introduction

*“One of the biggest challenges in post-1994 South Africa is the state of the education and training system.”*

(Ramphela 2008: 171)

Student success rates in South African higher education institutions are unacceptable. Higher Education South Africa (HESA) reports that 35% of first-years drop out after their first year (Sapa 2008). Breier and Mabizela (2007: 281) found that only 15% of students who enrol, complete their degree in the designated time; 30% drop out after the first year and a further 20% drop-out after their second or third year.

The purpose of this paper is to make a case for using student engagement indicators to improve educational attainment rates in South Africa. To this end, we describe the South African Survey of Student Engagement (SASSE) as a research-based tool to guide institutions and policy makers committed to increasing the number of students who survive and thrive in South African post-secondary institutions.

## 2. Contextual challenges related to success

The massification trend seen in higher education internationally, has led to a rapid increase in the number of students matriculating and gaining access to South African universities. Between 1993 and 2002, the number of African students matriculating increased by a third, from 40% to 60%. Despite widening access, overall participation rates in South African higher education remain low at 16% in 2005, a predicted 17.5% for 2010 and a goal of 20% participation by 2015 (Department of Education 2001: 16). While this achievement is noteworthy, the same cannot be said about higher education graduation rates (Jansen 2004, p.310).

Owing to the apartheid education system, a vast majority of students currently entering university are from low socioeconomic backgrounds, are first generation students, and are members of a racial group at high risk of dropping out. As a result, a large majority of entering students present with two or more of the risk factors associated with university drop-out (Kuh et al. 2007: 66). Indeed, Black African students still constitute the majority of higher education drop-outs, frustrating efforts to address equity in the South African workforce as well as the country's critical skills shortage (Scott 2007: 43). Given the profile of students entering the system, institutions have very little direct influence over the educational preparation of their students. As with public higher education internationally, South African institutions must contend with declining resources whilst simultaneously having to deal with more students from diverse backgrounds and pressures for increased accountability and quality assurance. In its rigorous steering of the public higher education sector, the Department of Education has adjusted the funding formula for public higher education to include graduation rates with a view to ensuring that success becomes a greater focus in higher education (Department of Education 2004: 7).

This brief overview of the contextual challenges related to success clearly underscores the need for research on what can realistically be done to adequately support students and improve their chances of attaining the degree or certification they seek.

## 3. The case for student engagement

Higher education research indicates that the best predictors as to whether or not a student will graduate are academic preparation and motivation (Pascarella & Terenzini 2005: 436-441). Unfortunately the only possible way to control these two variables is to employ more stringent admission and/or selection policies. As previously mentioned, with the participation goal of 20% and widened access policies, this is not a realistic option for many institutions in South Africa. 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 matriculating. Several decades of evidence suggests 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 (Pascarella & Terenzini 2005: 417-420; Kuh et al. 2005: 22; Kuh et al. 2007: 22;). 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 ways in which institutions allocate resources and organise learning opportunities and services to induce students to participate in and benefit from such activities" (Kuh et al 2005: 9).

Table 1 shows that there are many similarities between the US and South African higher education contexts. The table was developed through an analysis and integration of research by George Kuh and others in *Piecing together the*

*student success puzzle: Research, propositions and recommendations (2007)* and Ian Scott *Addressing diversity and development in South Africa: Challenges for educational expertise and scholarship (2007)*. The intention of the comparison between these two contexts is to highlight the similarity in challenges. Although addressing these challenges within the specific contexts of the both countries is a complicated matter, the magnitude of these challenges is exemplified in the South African context given the socio-economic, capacity and resource constraints, as well as the challenges faced by South Africa as a developing country.

CHALLENGES FACING HIGHER EDUCATION	
United States of America	South Africa
Low pass rates	Very low pass rates (around 15% graduate in time)
Low enrolment of minority group students	Participation rates of previously excluded Black African students around 12%
Lower pass rates amongst low income, minority group students	One in three Black African students graduate in time, less than 5% of this cohort obtains a degree
Students not adequately prepared in high school	Students not adequately prepared in high school
Increased demand for graduates in the knowledge economy results in a rapidly expanding student body with unprecedented levels of diversity and large numbers of first generation students	Widening access and an increased demand for graduates in the knowledge economy lead to unprecedented levels of diversity and many first generation students

**Table 1.** Comparison of challenges facing higher education in the United States and South Africa

However, the urgent need for improvement in retention and graduation rates in South African higher education and the similarities in the challenges facing these higher education contexts provide a strong rationale for the investigation of student engagement as a third contributing factor to success in South African higher education.

### 3.1 Measuring student engagement

Over the past decade, the Indiana University Center for Postsecondary Research has conducted numerous studies of the relationship between student engagement and student success in higher education. The results consistently and convincingly point to the positive impact of student participation in effective educational practices across all student types attending institutions that vary in terms of size, mission and selectivity. Most encouraging is that student engagement appears to exercise a compensatory effect for minority and historically underserved students (Kuh et al. 2007: 2). That is, by engaging in effective educational practices, the performance of at-risk students in terms of grades and persistence significantly improves. Thus, one key to improving student success and institutional effectiveness is to enact policies and practices that channel student energies toward appropriate activities.

The National Survey of Student Engagement (NSSE) was designed in 1998 and piloted with 75 American colleges during 1999 as a means to investigate levels of student engagement in colleges around the United States. Approximately 275 colleges participated in the first administration during 2000. To date, more than 1,300 institutions have participated at least once with 769 colleges administering the questionnaire in 2008 to more than 1.4 million students. The survey measures the extent to which students actively engage in activities directly related to success in higher education and the conditions that institutions provide for such engagement (National Survey of Student Engagement 2008a). The NSSE requires students to reflect and report on what they put into their time at university and the intellectual, personal and social gains they have realised from their studies.

### 3.2 Benchmarks for effective educational practice

NSSE results are reported annually in the form of five national benchmarks of good educational practice that participating institutions use to estimate the efficacy of their improvement efforts (Kuh 2003: 25). These indicators are based on 42 survey items that capture the many of the more important aspects of the student experience. The benchmarks are:

1. **Level of academic challenge** focuses on whether students find their academic work intellectually challenging and creative since this is regarded as central to student learning and quality. Universities promote high levels of student achievement by emphasising the importance of academic effort and setting high expectations for student performance. This benchmark includes questions about the number of hours students spend studying, the amount of reading and writing that has to be completed, questions based on Bloom's taxonomy and the emphasis the campus environment places on studying and academic work (Kuh et al. 2005: 11).
2. **Active and collaborative learning** is based on the premise that students learn more when they are intensely involved in their education and are required to reflect on their learning. This cluster of items asks about the extent to which students are active in class either through discussion, questions or presentations, whether they are involved in tutoring, in community-based projects and engaged in out-of-class discussions with others (Kuh et al. 2005: 11).
3. **Student-staff interaction** (student-faculty interaction) asserts that by interacting with staff members inside and outside the classroom, students learn how experts think first-hand and how to solve practical problems. The benchmark asks students to what extent they discuss their grades, future plans and ideas with staff, whether they worked with staff on activities outside of class and how prompt assessment feedback is (Kuh et al. 2005: 12).
4. **Enriching educational experience** focuses on the number of complementary learning opportunities students participate in that augment their academic programmes. The benchmark reflects experiences, use of IT for collaboration, internships, community service and capstone experiences as means to integrate and apply knowledge (Kuh et al. 2005: 12).
5. **Supportive campus environment** asks students about how they experience the campus environment and the quality of their relationships with other students (Kuh et al. 2005: 13).

### 3.3 Adapting the NSSE to the South African context

The NSSE has been contextualised and used at 47 Canadian universities, and the Australian Council for Educational Research (ACER) published the Australasian Survey of Student Engagement (AUSSE) in 2008 which included 25 higher education institutions in Australia and New Zealand (Australian Council for Educational Research 2008: vi).

In 2006 permission was requested from the NSSE Institute based at Indiana University to adapt the NSSE for use in South Africa and to administer this version, The South African Survey of Student Engagement (SASSE), for field testing purposes.

The SASSE is administered towards the end of the academic year and requires students to reflect and report on what they put into their time at university and what benefit and gains they have received from being at the institution. For example, in addition to the five benchmarks, the SASSE provides information on:

- University activities students engage in (in and out of class);
- Reading, writing and educational programme characteristics;
- Student time usage;
- Personal growth; and
- Student's opinions of and satisfaction with the institution.

The SASSE instrument essentially includes the same content as the NSSE survey, with slight adaptations in order 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 forth. The original NSSE instrument is only available in English and so, 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).

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

- (i) *"Which of the following have you done, or plan to do before leaving your institution? Participate in a learning community or some other formal program 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, etc.) 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.
- (ii) *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, etc.).* 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.

During 2006 the newly formed Department of Student Development and Success at the University of the Free State pilot tested the SASSE at its Bloemfontein campus with 867 students. The first full administration took place during 2007 with 752 students responding. The total undergraduate population at the University of the Free State is 17,500 students. However, the survey was administered only to the new first year group (3800 students). Thus approximately 30% of the target population participated. Table 2 shows selected demographic characteristics of 2007 respondents compared with all students at the University of the Free State (UFS) Bloemfontein campus in the same year.

		SASSE 2007 Sample		UFS Students Population
		N	%	
<b>Race</b>	<i>Black</i>	403	46%	46%
	<i>Coloured</i>	39	5%	5%
	<i>White</i>	382	43%	46%
	<i>Indian</i>	8	1%	2%
<b>Home Language</b>	<i>English</i>	64	8%	16%
	<i>Afrikaans</i>	368	43%	44%
	<i>IsiXhosa</i>	82	10%	6%
	<i>IsiZulu</i>	39	4%	5%
	<i>IsiNdebele</i>	3	0.3%	0.2%
	<i>Sesotho</i>	165	19%	22%
	<i>Setswana</i>	90	11%	1%
	<i>Tshivenda</i>	15	1.7%	1%
	<i>SiSwati</i>	3	0.30%	0.9%
	<i>Xitsonga</i>	7	0.80%	0.6%
	<i>Other</i>	15	2%	1%
<b>Campus Residence</b>	<i>Yes</i>	311	35%	26%
	<i>No</i>	564	65%	74%
<b>Gender</b>	<i>Male</i>	346	39%	42%
	<i>Female</i>	536	61%	58%
<b>Faculty</b>	<i>Natural and Agricultural Sciences</i>	89	10%	19%
	<i>Humanities</i>	175	20%	34%
	<i>Law</i>	124	14%	6%
	<i>Economics and Management Sciences</i>	281	32%	28%
	<i>Health Sciences</i>	196	23%	11%
<b>International student</b>	<i>Yes</i>	70	8%	4%
	<i>No</i>	803	92%	96%

**Table 2:** Demographics of SASSE participants at the University of the Free State in 2007

The following section describes the psychometric properties of the SASSE for the 2007 administration only, although results for the pilot are available for comparison.

#### **4. Psychometric properties of the student engagement measures**

The items in the questionnaire tap into the behaviours of students on the various categories, including: university activities; reading, writing and educational programme activities; time usage; personal growth and development; and opinions about the University. There are two items that directly measure student satisfaction with their overall experience at the institution and whether they would select the same institution again if given the choice. Students are also requested to provide various demographic details.

##### **4.1 Data Quality**

Skewness represents the extent to which scores are grouped toward the upper or lower end of a distribution, whilst kurtosis indicates the extent to which a distribution of scores is relatively flat or relatively peaked. Values ranging from approximately + 1.00 to - 1.00 on these indicators are generally regarded as evidence of normality. The responses to the survey items for the SASSE 2007 administration are approximately normally distributed. Preliminary analysis indicated that none of the variables had extreme outliers or presented with out-of-range values. Very little data was missing. For the 2007 administration, the item most frequently incomplete (23% of respondents) was "Which range does most of your marks during your first year of University fall into?" Additional items with a relatively large percentage of missing data included parents' level of education and where students were currently living.

##### **4.2 Validity**

The NSSE instrument has been extensively tested in the United States since 1999 in order to ensure acceptable content and face validity. The value of self-report data has been questioned and, as a result, has been extensively investigated. Researchers have identified five conditions under which self-report is likely to be valid, namely: (1) when the information requested is known to the respondents; (2) the questions are phrased clearly and unambiguously; (3) the questions refer to recent activities; (4) the respondents think the questions merit a serious and thoughtful response; and (5) answering the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways. The NSSE, and consequently the SASSE, is designed in such a way that all the above-mentioned criteria are satisfied (Kuh 2004: 4). With respect to construct validity, the original NSSE instrument was designed by a team of higher education experts who primarily wanted to capture the most effective engagement practices as measured by individual items, as opposed to selecting items based on the ability to derive scales or factors. Consequently, to date, factor analysis has not been conducted and reported on for the SASSE instrument. However, the NSSE is currently under review with the goal to create scales that have both adequate scale properties and content validity, and similar analysis will be conducted for the SASSE (National Survey of Student Engagement 2009).

##### **4.3 Reliability**

The reliability of a measure reflects the extent to which an instrument yields the same results across various settings, and over various time frames. Psychometric analyses have been conducted periodically of the NSSE instrument, including the pilot/field studies during 1999. These analyses were conducted on populations of 3 226 students at 12 institutions during 1999, 12 472 students at 56 institutions in fall 1999, 63 517 students at 276 institutions in spring 2000, 89 917 students at 321 institutions in spring 2001, and 118 355 students at 366 institutions in spring 2002 (Kuh n.d.).

The NSSE instrument asks students to report on behaviours grouped into 5 broad categories. Each of the item sets for these categories will be examined in terms of their internal reliability. The categories are university activity items; reading, writing and educational programme characteristics; time usage; personal growth; and opinions about your school. The NSSE instrument (and therefore the SASSE) was designed to allow institutions to examine group trends and make decisions regarding groups of students. According to Huysamen (1996: 27), reliabilities of 0.65 can be considered acceptable when investigating internal consistency for group decision making.

### University Activities

These items represent activities that students engage in both inside and outside the classroom. The first 22 SASSE items are empirically related to effective educational practice, the only exception being the two information technology items and the item on class preparation, where the findings are yet to be confirmed (Kuh 2004: 6). The 2007 administration yielded a Cronbach coefficient of 0.81 for these items. This coefficient is more than acceptable and compares favourably with the NSSE coefficient of 0.85 (Kuh 2004: 6). Additional analyses were conducted to determine the reliability for ethnic and language groups. Reliabilities for both ethnic groups remained within the acceptable range with a coefficient of 0.82 for the Black African group and 0.8 for the White group. Similarly, within the three language groups all coefficients were acceptable (English = 0.79, Afrikaans = 0.81 and Sotho = 0.83).

Inter-item correlations for the 2007 administration range from -0.1 to 0.611; and from -0.13 to 0.64 (for both samples, the negatively correlated items were those correlated with coming to class unprepared). For both the administrations, the highest correlation was between item, "Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values" and "Had serious conversations with students of a different race or ethnicity than your own", indicating that students who had serious conversations with students of another race/ethnicity, were more likely to have serious conversations with students of other political, religious beliefs, etc. In the 2007 administration, the next two highest correlations were between discussing grades with a lecturer and discussing ideas with a lecturer outside class (0.428), and discussing future plans with lecturers and discussing ideas outside of class (0.399). All the university activity items fell within the normal range of skewness and kurtosis for the pilot study and for the 2007 sample.

### Reading, writing and educational programme characteristics

The five mental activities of Bloom's taxonomy are measured in this 5-item category. The 2007 administration yielded a Cronbach alpha coefficient of 0.75 (the NSSE reliability for these items is alpha = 0.7). When the reliability coefficients were investigated separately for the Black African and White groups, acceptable results were found for both groups, a coefficient of 0.78 was found for the White students and 0.74 for the Black African students. Reliabilities within the language groups were all within the acceptable range. The lowest coefficient 0.69 was for the English group, the coefficient for the Afrikaans group was 0.79 and for the Sotho group 0.77.

The skewness and kurtosis of all 5 items was in the acceptable range and all the items were positively correlated to each other for both administrations. This set of items is among the best predictors of self-reported gains, suggesting that the items are reliably estimating the degree to which the institution is challenging students to perform higher order intellectual tasks (Kuh 2004: 9).



### Student time usage

The time usage items are split into two sets of activities, three that are positively correlated with other aspects of engagement and educational and personal gains (academic preparation, extracurricular activities, work on campus) (Kuh 2004: 9); and three items that are either not correlated or are negatively associated with engagement (socialising, work off-campus, caring for dependents). As can be expected, time spent studying is negatively correlated with the number of hours spent working off-campus (-0.033). In the NSSE there is a positive correlation between work on campus and time spent studying, but this is not the case in the South African 2007 sample where there is a weak negative correlation (-0.015). In the 2007 data, a negative correlation also was found between number of hours spent commuting and time spent participating in co-curricular activities (-0.046). Three of the items that were out of range in the 2007 data for skewness and kurtosis were within this group, as this is not unexpected. For example, caring for dependents and work on or off-campus are not activities that most undergraduate students would participate in, and thus a positively skewed distribution would be expected, indicating most students spent little time involved in these items.

### Personal growth

The set consists of 15 items with a Cronbach alpha coefficient of 0.86 for the 2007 sample, and 0.89 for the pilot study. Both are relatively close to the NSSE reliability for these items of  $\alpha = 0.9$  (Kuh 2004: 10). Additional analyses within ethnic groups indicated that the reliabilities remained acceptable, with alpha coefficients of 0.89 for the White students and 0.85 for Black African students. The alpha coefficients for both the English and Afrikaans students on this set of items were 0.87 compared to the Sotho group where the coefficient value was 0.85. The coefficients for all language and ethnic groups are within the acceptable range.

Inter-item correlations ranged between 0.09 and 0.62 where the correlation between developing writing and speaking skills was the highest, and the lowest correlation was between understanding oneself and acquiring job-related skills. The skewness and kurtosis of all the items was within the acceptable range and all the items were positively correlated to each other.

### Student opinions and satisfaction

This group of items requires the student to reflect on their perception of the extent of support they receive from the environment, including the two direct measures of satisfaction. The 2007 sample for these 11 items yielded a reliability of 0.75. This is sufficiently high to be considered reliable. When the reliability was determined separately for Black African and White students, coefficients remained above 0.7, with a alpha coefficient of 0.77 for Black African students and 0.71 for White students. The alpha coefficients for all three language groups were also above 0.7, with 0.74 for the English speaking group, 0.71 for the Afrikaans speaking group and 0.79 for the Sotho speaking group.

The inter-item correlations ranged from 0.00 to 0.58. The weakest correlation was between the "Amount of emphasis the institution places on helping students to thrive both academically and socially" and "Whether they would choose the same university again if given the chance". The highest correlations were between the following sets of items: "Amount of institutional support for academic success" and "Amount of support to help students thrive socially"; "Quality of relationships with administrative staff" and "Quality of relationships with academic staff"; and finally, "The

amount of support the university gives students to succeed academically” and “The emphasis the university places on diversity”. The skewness and kurtosis of the items in this grouping are all within the acceptable range.

## 5. Implications of using the SASSE

Given the strong empirical links between student engagement and student success, it is not surprising that NSSE and similar measures are increasingly being used internationally. For the following reasons, it seems the time has come for South Africa to systematically measure and use the results of the SASSE.

### 5.1 Implications for the higher education sector

The main drivers for the development of a survey of student engagement are to address:

- Third-party judgments of "quality", such as media rankings that continue to focus on such matters as student selectivity and staff (faculty) credentials. None of these cut to the heart of the matter: the investments that institutions make to foster proven instructional practices and the kinds of activities, experiences, and outcomes that their students receive as a result (National Survey of Student Engagement 2008b).
- The SASSE offers an alternative tool at a reasonable cost for gathering information that can be put to a wide range of uses and provides an important opportunity to re-frame both local and national conversations about higher education quality that can include the improvement of undergraduate teaching and learning (National Survey of Student Engagement 2008b).
- The SASSE can assist the higher education sector to identify and address key improvement factors that are under its control and that can influence success, an imperative recently highlighted by Scott at the National Conference on Teaching and Learning (Scott 2008: 4). The five benchmarks of effective education practices could serve as starting criteria on which South African institutions can focus in order to improve teaching and learning.

By using the SASSE across higher education institutions in South Africa, institutional leaders and policy makers can respond affirmatively to increasing public concerns about declining academic standards; a phenomenon which has been more frequent in the UK and which Geoffrey Alderman partly attributes to an obsession with “...league tables and newspaper rankings...and too much emphasis on public image and 'customer satisfaction'” (Alderman 2008).

### 5.2 Implications for the institution

At institutional level, the SASSE will provide institutions with a customised report that will allow the institution to evaluate itself by focusing on the five benchmarks of effective educational practices, namely: level of academic challenge; active and collaborative learning; student-staff interaction; enriching educational experience; and supportive campus environment. The reports will enable institutions to:

- **Assess and improve** teaching and learning practices, student affairs practices, etc.;
- **Benchmark** or compare their performance with respect to the five benchmarks with similar institutional types (universities, comprehensives or universities of technology) or with the higher education sector in South

Africa. The benchmarks can also be used to compare performance, relating to the five benchmarks, with North American institutions and Australasian institutions;

- **Improve accountability** internally by comparing the results of faculties with each other with respect to the five benchmarks, e.g. identify areas that can be improved to maximise students' chance of success;
- **Develop interventions** based on survey results that can be used to improve throughput and success rates;
- **Enhance faculty and staff development** by focusing initiatives on effective educational practices that have been shown to maximise students' opportunities to succeed;
- **Facilitate curriculum reform** to improve students' levels of active participation in their learning;
- **Complement and enrich** existing institutional research on teaching and learning, as well as throughput and success rates;
- **Assess student satisfaction.**

At the UFS the SASSE results have been used to note how the university's performance compares, on a systemic level, with North American averages relating to the five benchmarks. The focus has been on using the results to compare the performance of different faculties with each other relating to these five benchmarks. This internal reflection has resulted in detailed faculty reports, developed by Student Development and Success, to help faculties identify and develop interventions that can help to improve engagement and to further improve the conditions required for student success. For example, SASSE findings have resulted in critical engagement in the Faculty of Natural and Agricultural Sciences around curriculum reform. A further example is the use of SASSE results to inform student affairs projects such as the university orientation programme for first years. Given the complexities involved in international comparisons, the research conducted at the UFS to date has emphasised the importance of developing South African benchmarks for investigating and implementing institutional and systemic improvements in higher education.

## 5. Conclusion

*"Transforming a discriminatory, fragmented higher-education system with elements of excellence in a sea of mediocrity into a coordinated and uniformly excellent one has been a major challenge for post-apartheid South Africa."*

(Ramphele 2008: 197)

There are three reasons why, at this moment in time, focusing on student engagement can help to enhance student success and institutional effectiveness across the South African higher education system. First, the country urgently needs better retention and graduation rates from the system to allow the country to provide the human resources needed for development. Secondly, similarities in the circumstances and challenges facing South Africa, when compared to other countries, support research demonstrating that student engagement can be a potentially powerful tool for improving student success and the efficiency and effectiveness of the higher education system as a whole. Finally, the psychometric properties of the South African Survey of Student Engagement (SASSE) provide a sound basis on which to initiate studies of the student engagement field, using a contextualised measure that will allow South African institutions to develop national benchmarks that can be compared internationally with those of the United States and Australia.

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