



# A Re-Imagined Institutional Student Retention and Success Framework to Enhance Holistic Student Support

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## Abstract

The focus on student retention and success is a core concern at higher education institutions world-wide. In the South African higher education system, the widening of access, high attrition, low throughput and low completion rates highlight the vast disparities with students entering university. Student diversity with regard to prior contexts influences the way students engage in the higher education environment. In addition, many South African universities are equally not prepared to cater for the diverse needs of their students. This paper highlights the development and implementation of a holistic institutional student retention and success framework. The framework places the student as the central focus and the institution as a key role player in supporting student retention and success. Quantitative and qualitative data were used to inform the development of the student retention and success framework. Data were collected from a cohort of students over a seven-year period (2010 to 2017). A trend analysis was conducted with 4547 students, using quantitative data from the university management system; in 2017 qualitative data were collected from a purposively selected sample of 54 students to gain an in-depth understanding of how students navigate their university studies within the university systems. Bertalanffy's general systems theory (GST) was used to analyse the data and bring into focus the significance of the interdependence and interrelatedness of systems, and structures which influence each other directly or indirectly. In the framework the phenomenon of student success is viewed holistically as a set of elements interacting with one another within the university as a system. The paper argues that each element in the framework has an important role to play in providing holistic student support, engagement and success.

**Keywords:** engagement, diversity, higher education, systems theory

## **1. Introduction**

Student retention and success at higher education institutions could take on various meanings, depending on the purpose and context of an institution. Kinzie and Kuh (2016) in broad terms regard student success as institutional efforts to help students smoothly transition to and make the most of their university experience. Kinzie and Kuh's article further describes student success as institutions' taking into account all of the following elements: first-year student retention; student persistence to completion; gains in content knowledge; engagement in educational processes that foster a high-quality undergraduate experience; and even students' personal success with the aims of improving inclusivity and equity, while closing post-secondary achievement gaps. This description aligns closely with this research paper's student retention and success framework and our Institutional Operational Plan (IOP 2022–2025), with specific reference to Goal 1, which is student experience, and Goal 2, which highlights student learning and teaching.

In 1994 the new democratic government inherited a higher education system that was characterised by deep racial inequalities. To redress the many inequalities with regard to student participation at universities in South Africa, the government widened university access through increased enrolments to allow students from disadvantaged communities to enter universities. Many institutions were underprepared to accommodate the diverse range of students in regard to age, race and preparedness for academic studies. A consequence of this situation was that many South African institutions experienced low participation, high attrition and low completion rates. South Africa universities has seen the broadening of access; however, this has not led to efficient or improved outcomes. High student losses and poor outcomes have been recognised as hugely inefficient and have come at significant cost to universities and students. Although institutions in South Africa have increased its participation rates by providing access to many disadvantaged students, racial disparities still exist. The South African population is divided into four racial groups – African, Coloured, Indian and White – which are closely monitored to examine participation and success rates in universities. Present trends show that a very small proportion of African, Coloured and Indian students graduate in regulation time. By the end of regulation time, there are more students who have failed and dropped out than students who have graduated. First-year attrition is high at 33% nationally, with some racial disparities also apparent. National data on participation, graduation and attrition rates suggest that only 5% of African and Coloured students are succeeding in higher education. This paper describes a holistic student and retention framework that was developed to engage with the many areas identified as essential for student success. We will highlight the process that was followed and the key principles aligned to the framework.

## **2. Methodology**

We used a pragmatic approach to collect qualitative and quantitative data to get a better understanding of the students' academic and social engagement at university. According to Wheeldon and Åhlberg (2012), the pragmatic approach to understanding reality and developing knowledge is through using both quantitative and qualitative data collection and analysis. For Cameron (2011), pragmatism in its simplest sense is viewed as a practical approach to a problem, using what works to deal with the research problem; in this case, this was understanding student engagement and performance to develop a holistic student retention and success framework that was context specific and that could deal with issues related to student success. As a first step, we conducted a trend analysis with a cohort of students that entered university in 2010. We tracked their performance over a seven-year period until 2016. A total of 4547 students became the participants in this study. Data to track the students were drawn from the university's student administration system. We tracked the participants' movement year after year in all degree programmes of the university over the seven years, until the end of 2016. The data set accounted for student losses, degree completion and graduation. We also collected demographics and attributes data such as race, gender, age, school background, school subjects and school results, school socioeconomic classification, students' on-campus residence, nationality, and home province and financial aid information on the respondents from the university data base. Academic and programme data collected from the system included the following: the registered programmes and degree types; modules attempted, passed and failed; programme switching; individual credit loads at any given time; and year-on-year promotions. The wide variety of the information we collected enabled us to develop a profile of the cohort we examined. The trend analysis enabled a view of student behaviour for each year about retention, student losses, returns, completions, graduations and postgraduate registration in the cohort over a seven-year period. We were able to identify the at-risk years, subjects and programmes.

In support of the quantitative data that we collected, we administered a physical questionnaire to 54 returning students during registration in 2017. Questions in the survey were specific to deal with the challenges we picked up from the cohort study and which we wanted to probe further. Questions referred to support provided by the institution, faculties, lecturers and peers. Solicited responses concerned multiple facets of students' experiences (including academic and help-seeking behaviours) and their general learning and social experiences (including their experiences transitioning to university). We also sought information on their access to and quality of both academic and psychosocial support services, the extent of unmet financial needs and also the quality of their living arrangements and commuting requirements. We used thematic analysis to guide the process of examining the qualitative data. According to Braun and Clarke (2006), thematic analysis is a method suitable for identifying, analysing and reporting patterns (themes) in a set of data. We merged both data sets to give us a more holistic view of students' engagement at university and to find possible indicators to include in the student retention and success framework.

The cohort study provided us with a programme-based view of the patterns of attrition and success on a year-by-year basis. It also described the extent of the problem of student attrition

and delayed completion at the institution. The data set of the cohort study exposed the areas and stages where students struggled and were most at risk both of dropping out and of delaying completion. This data set enabled us to explore relationships between different variables in the data to uncover patterns and trends. For example, we found early failure in first-year courses to be the strongest indicator of risk for dropping out in subsequent years, while the strongest indicator for success was access to on-campus residence accommodation. Both sets of data enabled us to identify risk factors and their triangulation with the literature on student risk for dropping out.

The analysis of the qualitative study provided more nuanced information on student profiles either as incoming or continuing students. The data provided new knowledge on student risk factors. These included unmet financial needs, students' socioeconomic conditions related to their living conditions, the need to work part-time to finance their studies, and their schooling experience, which highlighted the community they were coming from. We also highlighted institutional risk factors through the lens of student experience; this included the perceived quality of orientation programmes, academic and non-academic support services, engagement opportunities inside and outside the classroom and the quality of the physical campus environment. Elements of a retention strategy began to emerge from the quantitative and qualitative data sets, which prioritised the need for tracking and monitoring student performance in order to identify places where students struggle, and put in place evidence-based measures to improve success and minimise dropout.

### **3. Literature review**

Connell's (2007) southern theory provided a useful lens to view the development of our student retention and success framework as this theory argues for stronger recognition of social thought from the societies of the global South. Connell holds that there has been a tendency in sociology for the discipline to be shaped by concerns and challenges emanating from the global North and, in so doing, often overlooking the contributions and experiences of those who are in 'the world's periphery, namely in the global South' (Connell, 2007). South Africa's specific historical and political context creates specific conditions which one must highlighted to ground the problems and challenges being investigated, and to generate concepts and understandings rooted in South African lived experiences. In the case of this research, higher education faces a set of challenges that are similar to but also unique in many ways compared to those faced in other areas of the world.

South African students must navigate institutional contexts that have quite unique elements related to the historical and political context.

The legacies of apartheid in South Africa have left deep disparities in society. Students enter the higher education system from positions of extreme inequality not only in their schooling background but also in terms of their financial and other resources. It is widely accepted that inadequate financial resources (Letseka, Breier and Visser 2010) is by far the greatest factor influencing students either not to complete their studies or to delay completion. Financial pressures may oblige students to work while they study. Even those registered ostensibly as

'full-time' students take breaks between years to earn; this is known as a 'stopout', which further delays their progress (CHE 2010:6).

Koen (2007) explains that students need to feel included and recognised as being an important part of the academic process. He further explains that student integration into the academic and social milieus plays a significant role in retention and time to completion at university. Koen outlines following principles that, taken together, are critical to student success:

- Students' socialisation experiences, together with sufficient motivation and commitment to succeed;
- The degree of student involvement in the university structures (for example clubs, sports, leadership structures);
- Organisational practices that encourage student socialisation; and
- Consistent academic values, morals and rules in structuring student academic engagement.

A study done by Letseka, Breier and Visser (2010) examining student retention and graduates in seven higher education institutions in South Africa identified the following major reasons for students leaving their studies:

- Financial: insufficient funds to pay for studies; inability to afford three or four years of continuous study causing students to 'stop out' with the intention of returning later;
- Academic challenges: failing courses and facing academic exclusion;
- Frustrations with administrative systems and staff;
- Loss of interest in the programme, possibly resulting from uninformed/limited programme choice; and
- Inadequate career guidance and counselling at the university.

Students need to be supported from pre-entry to graduation and beyond. The highest risk of successfully navigating university transition is at first-year level. Students at first year are generally less prepared for higher education studies and are therefore more at risk of dropping out, stopping out or taking longer to complete their qualifications. Visser and Van Zyl (2016) advise that a conceptual model serves as common point of reference to enhance student success, retention, graduation and satisfaction and, in particular, the assessment of risk associated with academic readiness for higher education studies. In his South African lectures on *Conceptualising a coherent approach to student success*, Tinto (2014) stresses that student success does not happen by chance; it requires an intentional, structured and coherent set of policies and actions that coordinate the work of many programmes and people across campus – actions that are sustained and scaled up over time and to which resources are allocated (2014: 6). The next section discusses the approach we had taken to develop an intentional data-driven framework for student retention and success.

#### **4. Towards a student retention and success framework**

The quantitative data examining retention rates revealed that, on average, the institution loses approximately 20% of students by the start of the second year and an additional 20% of students in the following two years. Concerning student success, the data showed that, on average, less than 25% of an average three-year degree cohort completed in regulation time, while a total of 50% dropped out. By graduation time, which is the third year of a three-year degree, the university would have lost significantly more students (40%) than those that were able to graduate (24%).

The study also showed that approximately 80% of students who did not return at the start of their second year of study left the university despite being academically and financially able to register for a second year of study. This represents a serious retention problem for the institution. Student success data indicated that, in line with the national picture, undergraduate programmes experience very low on-time completion, significant delayed completion and high attrition, with significant numbers not completing at all and even fewer completing in regulation time.

In conceptualising the challenges to improving student success, the development of an institutional student retention and success framework attempted to integrate three common approaches to promote a holistic approach to understanding and studying student success. We lean on Bertalanffy's (1975) general systems theory (GST) as an appropriate framework for this study. Bertalanffy's GST is regarded very much a human construction and is therefore subject to change and further evolution, while also allowing for coordinated movement toward a coherent intellectual framework. GST stresses the role and importance of context and the environment. It highlights the basic idea behind the systems theory, namely that the whole is greater than the sum of its parts. In this study the phenomenon of student retention and success is viewed holistically as a set of elements interacting with one another in the university as a system. The impact of each element (policies, teaching and learning, student engagement, support, finance, curriculum and assessment) in the system depends on the role played by other elements in the university system; student retention and success arise from efficient and appropriate interaction among these elements.

Chen (1993) identifies five elements in GST that we found appropriate to consider in the development of a university student retention and success framework: its ability to promote an integrated understanding; engaging in complexity; understanding a dynamic and changing world; being relatable at macro and micro levels; and functioning at a human-made world view.

In using system thinking in our university context and from the data reviewed and analysed we identified three kinds of learning environments essential for holistic student retention and success: the caring and inclusive environment; the learning and teaching environment; and the supportive environment. These three environments are cross-cutting environments and are discussed in the three approaches below on the personal, institutional and contextual level.

The first approach views student success largely through the personal or student lens; in doing so, it highlights the incoming and innate characteristics students possess when they

enter university. On an academic level, this approach foregrounds student preparedness and under-preparedness as key mediators of success. It also highlights students' attributes and behaviour, such as their ability to engage in self-directed study and their help-seeking behaviour. The personal/student lens also acknowledges that the degree of fit between students' home and school culture and the culture of the university has an impact on performance, such that student failure or dropout could be attributed to their inability to smoothly transition from home and school to university.

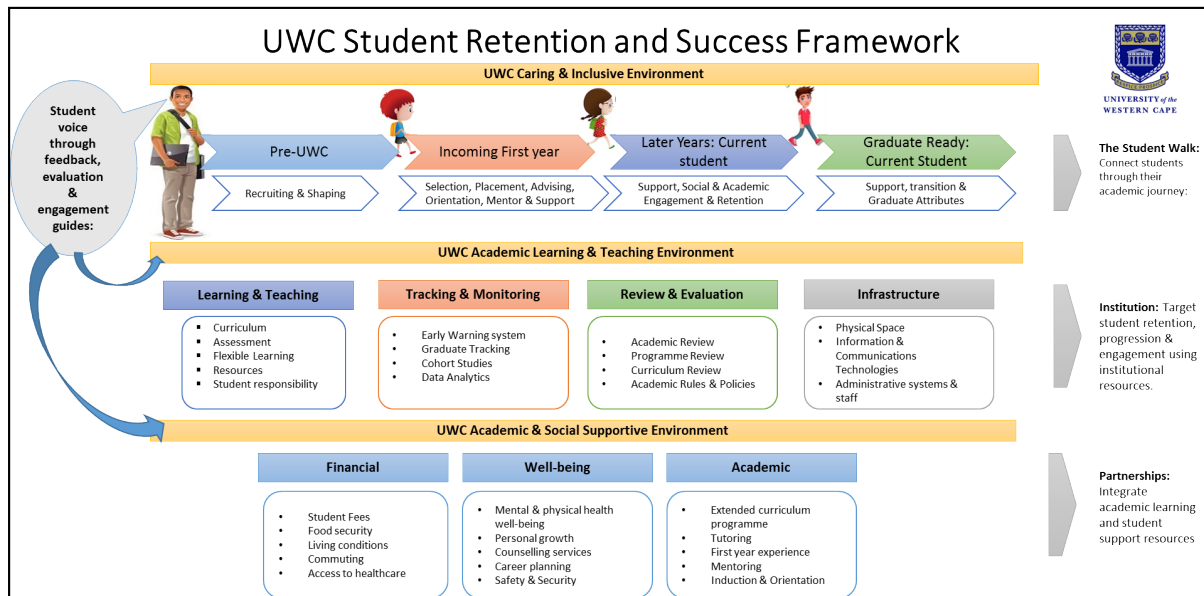
The second approach, the institutional approach (Koen, 2007), emphasises the nature of the higher education institution and the way it enables or constrains students' access to and full participation in the social and academic processes of the institution. This includes the institutional culture as it is experienced by students, the quality of pedagogical practices, course structures and assessments, and also the quality of the academic and psychosocial support environment students are able to access. Studies of institutional context and culture explore 'how meanings and historical social relationships in universities are contested and negotiated' (CHE; 2010).

The third approach, often termed the external approach, characterises student success as a complex interplay of external background factors, including the apartheid legacy of educational and other inequalities which has an impact on whether a student is the first in their family to attend university, their living environment and conditions, geographical distance from the campus, their degree of unmet financial needs and so on. Therefore, this approach conceptualises student attrition or dropout in terms of South Africa's colonial and apartheid legacy; it foregrounds a race-based, socio-political and socio-economic perspective on the challenges of higher education.

Ramrathan (2013) proposed that an approach to improving student success that takes all three of these aspects into account is necessary if effective strategies are to be designed to improve efforts and outcomes related to student success. The institution's student retention and success framework was constructed around these three perspectives, namely the personal, institutional and contextual; it proposed that integrating all three approaches delivered a more holistic understanding of student retention and success. First, viewing attrition through the individual student lens highlights students' learning and living experiences as sited for improvement; secondly, the institutional lens grants the university the agency to interrogate and deal with limiting factors; the third approach is able to direct energies towards alleviating some of the external barriers experienced by students and enables the conceptualisation of student success as a social justice concern.

In its design, the student retention and success framework which received institutional approval in 2018 recognised that the landscape of student success is complex and multi-faceted, and that factors impacting student retention success can be organised around these three approaches to understanding student success, namely the personal, institutional and contextual approach.

Figure 1: Framework for Student Retention and Success



Source: (Brown & Pather, 2018)

The above depiction of the framework is incorporated into the framework policy document. This image attempts to visualise the integration of the three approaches described above. The framework places the student as the central focus and borrows the notion of the 'student walk' from the work of Subotzky and Prinsloo (2011). They introduced into the SA context the construct of the student walk to describe 'the numerous ongoing interactions between student and institution throughout each step of the student journey' (2011:185). The institution's student walk, depicted in the caring and inclusive environment, connects students through their academic journey with the institution. It begins with marketing and recruitment, which often are conducted in person at high schools in the university's surrounding areas and also in scattered parts of the country. It progresses through students' entry into the institution and marks the known places where students experience transition challenges such as at first year and in transition to second and more senior years. The student walk ends with a student who is ready to graduate and able to enter the world of work. The personal lens embedded here also serves as a reminder that students enter the university possessing various incoming and innate characteristics which may or may not match elements of the institutional culture, which is one of the key elements influencing student transition and eventual outcomes.

The walk attempts to draw attention to the various places where the university experiences student losses, including the losses experienced between recruitment and registration and also between graduation and employment. This environment furthermore highlights some of the key intervention areas that are critical to supporting students in their journey such as mentoring and advising, social and academic support, and the development of critical graduate attributes.

The second environment, titled academic learning and teaching, describes the engaging, learning and teaching environment provided by the institution; it highlights the responsibility of the institution to provide sufficient resources in the following areas: learning and teaching;



tracking and monitoring; programme review and evaluation; and infrastructure (which is inclusive of the quality of the physical campus and the learning and teaching infrastructure). In the academic environment, the focus is on communicating that institutional resources must strategically and systematically target student retention, progression and engagement if improvements in successful student outcomes are to be realised. It also highlights the need to support the student and the lecturer so that quality learning and teaching can take place.

The third environment, titled academic and social supportive environment, provides room for integrating the personal, institutional and contextual approaches when addressing the following three areas: student financial circumstances (including the need for food security and conducive learning environments); student's personal well-being and growth (including mental and physical health and well-being); and academic. All of these areas bring together the academic support initiatives the institution must provide. The third environment is critical in alerting the institutional community to one of the key principles of the framework, which states *that student success is everybody's business*, thereby highlighting the importance of partnerships and working across units. In reality, this third environment is what constitutes a multi-faceted ecosystem of support provided at the university by various stakeholders across the institution, which offers formal and informal services to students, which also includes peer-to-peer student relationships.

To ensure that the institution's student retention and success framework becomes a living document, we designed a set of eight guiding principles to support implementation of the framework and strategy:

1. Student success is everybody's business.
2. Student success must become central to the mission of the institution.
3. Taking action is as important as reflection and analytic insights.
4. Student success initiatives require mutual engagement of students and the University.
5. Translating knowledge into institutional action will achieve substantial improvement.
6. Engaging in ongoing monitoring and evaluation of the impact of the framework.
7. Human resources are important investments into student success and retention.
8. A systemic and integrated approach to work across silos with an effective implementation, management and coordinated plan.

## 5. Conclusion

Students need to be supported from pre-entry, through university and beyond. A coherent framework needs to be intentional and carefully thought through considering the university context and that of the surrounding environment. The development of the institutional framework was data-informed and followed a system-thinking approach to tackle the complex structures of the institution and that of student success. The student retention and success framework highlights three main environments: a caring and inclusive environment; an academic learning and teaching environment; and an academic and social supportive environment. It also considers the three approaches of the personal, institutional and contextual level. The institutional student retention and success framework brings into focus

the significance of the interdependence and interrelatedness of the university systems, and the structures which influence each other directly or indirectly. Actions taken by the institution are critical to actions taken in the classroom and by student support services to enhance student retention, success and completion. Working collaboratively within the framework and across university silos will allow the institution to be more effective in promoting student retention, completion and success.

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