

Contextualising the South African Higher Education Academic Interventions for Student Success: Challenges and Opportunities

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Abstract: South African Higher Education Institutions (HEIs) are increasingly feeling the pressure to produce graduates that contribute towards economic transformation, and sustainability through skills necessary to address the challenges of the Fifth Industrial Revolution (5IR). However, the rate of academic failures and high dropouts in South African Universities has been alarming. This study contextualized the South African HEIs' Academic Interventions to uncover the challenges and opportunities HEIs face in their quest to advance student success throughout their academic and early professional career. To aid the study's investigation on the institutional practices that inform the forms of academic interventions for Student Success, in South African Universities, this study's main research question focuses on uncovering how the student success interventions conceptualisation within the context of the South African system of Higher Education are carried out. The objectives of the are multifaceted. Firstly, the study investigates how academic interventions address the challenges leading to the high drop-out rate in Higher Education Institutions. Secondly, the study employs a narrative literature review to uncover the challenges and opportunities to mitigate possible risks affecting the advancement of conducive and equitable prospects for effective student success interventions. Finally, the study contributes to the ongoing discourse on student success interventions in relation to the South African 1997 White Paper on Higher Education Transformation, which indicates an improved access to HEIs. However, this study's findings uncover a deficit in interventions that mitigate drop-out rates. The paper argues for an enhanced collaboration to strengthen institutional best practices as a fundamental step to transform challenges into opportunities when responding to student success interventions, in South African HEIs.

Keywords: Academic interventions, Fifth industrial revolution, Narrative literature review, Student success, South Africa, Higher education institutions, Platformisation

1. Introduction

South African Higher Education Institutions (HEIs) are increasingly feeling the pressure to produce graduates that contribute towards economic transformation, and sustainability through skills necessary to address the challenges of the Fifth Industrial Revolution (5IR). However, the rate of academic failures and high dropouts in South African Universities has been alarming, with a scale of "between 50-60% of first-year students dropping out" (Dyomfana, 2022). African Universities, particularly in South Africa, have been affected by socio-economic and technological divide resulting from historical disadvantages. However, platformisation challenges associated with preparedness in Higher Education did not solely affect African Higher Education Institutions (HEIs). It becomes imperative to examine institutional practices and academic intervention strategies that foster student success. To better understand and conceptualise the intervention practices in South African Universities, this paper contextualises student success and provides an insight into the existing challenges and possible opportunities to redress the uncovered weaknesses

A narrative literature review (NLR) conceptualises academic intervention practices used in South African HEIs. The objective is to synthesize the current data on how academic interventions address the challenges that lead to higher dropout rates in HEIs in South Africa. A NLR provides an overview of the status quo (Kraus, Breier, & Dasírodríguez, 2020), while addressing distinct "research questions and methodologies" (Pautasso, 2019:303). The research questions investigate the following: 1) how are the student success interventions conceptualised within the South African context and 2) how are academic interventions carried out?

The descriptive analysis in this study will classify and categorise the primary themes covered in educational journals. This analysis provides valuable insights into the South African HEIs' parameters. Thereafter, a conceptualisation of academic intervention practices and analysis of institutional strategies of South African HEIs enables the study to draw conclusions and recommendations.

2. Literature Review

2.1 Student Success Interventions Within South African Context

Student success intervention as defined by the Department of Higher Education and Training (DHET) in South Africa, uses the enrolment versus completion rates as the key measurement of student success (*Annual Report 2022/23*, 2023). The 1997 White Paper on Higher Education Transformation (Department of Education, 1997)

alludes to the correlation between access to education and success amongst students in HEIs. HEIs within South African context are guided by the DHET. The HEIs comprise technical institutions known as Technikons or Universities of Technology, comprehensive Universities with blended educational programmes, traditional Universities offering degrees as well as a wide range of private institutions operating under the auspices of the South African Council on Higher Education (CHE), (South Africa Education, 2024).

To transform the education system in South Africa, the democratic government adopted the White Paper (Department of Education, 1997). The South African White Paper stresses the need to expand student accessibility in the HEIs, particularly amongst previously disadvantaged members of society. Inclusive accessibility in HEIs improves student success rates equitably when no member of society is excluded from the processes of academic development. The White Paper further stresses the need for “equity of access” and “equity of outcomes” as core principles supporting educational practices in South African HEIs institutions (Lewin and Mawoyo, 2014:29). In South African institutions, these efforts often move beyond addressing individual academic failure and focus on systemic institutional factors that contribute to student struggles.

Having conceptualised the genesis of South African educational prerogatives and the inclusive educational policy implementation evidence suggests that equitable access to education alone is not adequate to advance student success. An increased need to match national educational policies with the resources required to respond to the challenges posed by growing technological advancements strengthens student success interventions (Moloi & Salawu, 2022).

Equitable accessibility to HEIs not only addresses the incompatibilities created by the racialised education provision of the apartheid era but also advances a more balanced educational and progressive environment. Until pre-democratic South Africa, the number of African students in HEIs was minimal due to the repressive legacies of the apartheid (Sims, Govender, Lundie and Titus, 2024).

Despite having made many positive changes in terms of student accessibility to HE, it remains fundamental for the practitioners in the HEIs to “critically reflect upon and consistently review the assumptions, content, delivery and appropriateness of student development programmes, support structures, services and initiatives” adopted as measures that advance student success (Madiba, 2014:vi). One of the challenges to student success is the insufficient use of experimental learning in the classrooms. Students have shown great concern about this barrier which affects their preparedness and success in assessments (Moodley, 2022:120). This study argues for a consistent critical reflection and re-evaluation of the content delivery and support structure amongst other earlier mentioned teaching and learning (T&L) processes.

The conceptualisation of “student success” is a complex phenomenon. It should involve strategies beyond the low pass rate HEIs experience. For instance, HEIs beyond South Africa such as US Colleges still use the low rate of 34% to define student success and guide staff in contributing towards a strategic plan of action (Wheeler, 2023). This paper argues that student success requires more than merely assessing graduation rates. Student success interventions must also include academic interventions that impact the overall academic success such as technology literacy, independent learning, and the ability to conceptualise, critique and reflect on academic material (Machika and Johnson, 2016; “Top three strategies for student success,” 2024; Wheeler, 2023). Student success does not solely entail the advancement of basic academic skills. It requires a comprehensive set of activities aligned with structural and educational goals to ensure that students attain an overall academic success experience (Nel, 2014).

2.2 Practical Academic Success Interventions

Advancements in information technology gave rise to platformised education. This in turn, exposed some underlying challenges in African HEIs. Regardless of students’ “socio-economic backgrounds,” students still have to rapidly adapt to technological changes in teaching and learning activities (van Staden and Naidoo, 2022:271). In the height of COVID-19 mobility restrictions, HEIs across South Africa adopted over 50 technological platforms that supported students’ academic activities including Learning Management Systems (LMS) as critical and practical educational tools (Moloi & Salawu, 2022:11-12). Some private HEIs such as the Independent Institute of Education (IIE) adopt a collaborative approach by engaging with “leading scientific and technology research, development and implementation organisations in Africa” such as the Council of Scientific and Industrial Research (CSIR), to continue to make use of cutting-edge technology, and to support student academic success (CSIR, 2023).

The speed through which platformisation became a norm, exposed challenges associated with preparedness in many HE. These challenges did not solely affect African HEIs. For instance, the transition to blended teaching

and learning also impacted HEIs European countries, the United Kingdom, as well as countries in South Pacific Ocean such as New Zealand (Peterson *et al.*, 2023). Despite progressive strides in institutional transformation processes, the shift from face-to-face interaction to virtual education has not been achieved without challenges. The radical “platformisation” required extensive use of digital platforms for teaching and learning and remains a norm to continue to support students’ distinct needs in post-Covid 19 crisis (Lange, 2022). Some students can succeed academically without physical student-lecturer contact but others feel alienated when they do not receive sufficient “individual attention from their lecturers” (Moodley, 2022:118). The adaptation to online and blended learning approaches continues to be a challenge throughout student’s HE experience (Machika and Johnson, 2016; Manik, 2017; van Staden and Naidoo, 2022).

Despite the existing challenges, this transition creates opportunities for HEIs to effectively tap into technology innovative practices. However, the rapid transition left many, students ill-equipped due to either a lack of technological skills or direct support to remotely navigate virtual teaching and learning systems (van Staden and Naidoo, 2022). In essence, the transformation aimed to redress not only the social inequalities of the past in terms of the inequitable racial representation, curriculum practices and student support mechanisms but also an accelerated preparedness for remote and blended education (van Staden and Naidoo, 2022).

Academic interventions are critical teaching and learning practices adopted in most HEIs, including those in South Africa. The primary goal of academic interventions is to support at-risk students and improve their chances of success in their academic careers (Lewin and Mawoyo, 2014). Most academic interventions in South African institutions do not necessarily focus on discourses surrounding student academic failure but rather channel the support to systemic institutional aspects that often influence failure in students. Thus, becoming instrumental to ensure that operational systems are student-centred, and that the HEIs support students’ welfare as well as development reflected in the teaching and learning activities. When the institutional operational systems are adequately designed in such a way that inclusiveness and support are accessible to all students, the expectation is an enhanced students’ success. It is critical to take into consideration the “sensitivity to, and understanding of, the complexities that learners face” stemming from pervasive socio-economic inequalities (Social Surveys, 2023).

One of the major steps for educational inclusion has been the promotion of educational policies, in line with the Salamanca Statement adopted globally by the United Nations Educational, Scientific and Cultural Organization (UNESCO), (UNESCO, 2024). Having international backing on the educational processes prevents South African HEIs from perpetuating and somewhat re-creating societal inequalities. South African HEIs have a mandate to, not only find solutions to problems in society, but also to “positively impact lives” across the globe through their educational curriculum and student support programmes (Madiba, 2014 and IIE MSA 2022).

Strategic interventions for student success are critical to limit the “success gaps” in HEIs (Perna and Thomas, 2008:2). Globally, student success intervention programmes primarily target first-year students (Gore, 2020; Manik, 2017; Nel, 2014; Peterson *et al.*, 2023). Van Staden and Naidoo (2022) argue that first-year entrants often struggle to adjust to the transformational academic transition from high school to an institution of Higher Learning for several reasons. In the post-Covid-19 era, these challenges are compounded by psychological and technological changes which require constant reassessment of its responses.

3. Methodology

This study adopts the NLR as a qualitative method of data analysis. It examines student success parameters within the context of South African HEIs employing a content analysis. The analysis data collected is drawn from peer reviewed secondary sources viz: international and national academic journals, study-area citations and publications from relevant surveys and peer-reviewed articles. The data evaluation determined how effective student success interventions have been and the factors limiting the achievement of student success.

The scope of the study encompasses the post-COVID-19 era between 2019-2024. The study deliberates on the identified challenges and opportunities of academic interventions and the impact on student success, in South Africa. Thus, uncovering best practices, making suggestions, and providing directions for further study.

4. Discussion

Substantial accessibility improvements can be noted in South African Universities previously plagued by the legacies of racial exclusion. However, the outcomes of the institutional development remain “skewed by race” with low changes in academic career demographics (Lewin, 2024). In South Africa, the overall number of students enrolled in South African universities by 1994 was 495 356 (Lewin and Mawoyo, 2014:23). By 2024,

the number of students of African origin, in South African HEIs has almost tripled. Over “1.3 million students in public and private HEIs (more than 80% in public universities)”, have been recorded in the past 30 years (Lewin, 2024). This means that student enrolment numbers have improved substantially in the South African HEIs despite the prevailing challenges in HEIs. However, this does not mean that student success priorities have been fully addressed.

The need for policy reforms in South Africa public universities became especially urgent the mass student protests such as the #feesmustfall movement (Griffiths, 2019; Ntombana, Gwala and Sibanda, 2023). The #feesmustfall protests which brought public universities to a stand-still across the country, in October 2015, were driven by the students’ needs for “economic emancipation” as well as the “epistemic decolonisation of the university” (Griffiths, 2019:2). The #feesmustfall protests brought to light the causal effects that slow paced governance responses to vital “structural and systemic inequalities” in South African institutions of HE (Ntombana, Gwala and Sibanda, 2023:1). The protests in HEIs underscored that equitable access alone is insufficient, without addressing the intertwined issues of affordability and curriculum relevance, student success will remain elusive.

To create the conditions necessary for academic success, it is fundamental for HEIs and policymakers to consider the relationship between access, affordability and curriculum innovation. As South Africa enters the era of the Fourth and Fifth Industrial Revolutions, the integration of new technologies, particularly artificial intelligence (AI) and robotics, demands that HEIs upskill their students to remain competitive and responsive to the evolving demands of the global workforce (IIE World of Work, 2023; Noblea, Mende, Grewal and Parasuraman, 2022:199). As the 5IR, defines the convergence of human-centred approaches with technological advances, it is increasingly crucial to understand the nuances involved in identifying and implementing strategic interventions that yield student success, in HEIs.

Firstly, the psychological impact of the lockdown influenced both individual and institutional changes. As the rest of the world accelerated a blended T&L method, in 2020 academic year, so did most of South African HEIs. Greater support for accessibility and up-skilling on the use of virtual discussion and training expanded, particularly for undergraduate students (Lange, 2022). Secondly, given the drastic and somewhat unplanned changes brought by the Covid-19 pandemic the South African HEIs underwent significant transformation necessary for enhancing students’ ability to align with global competitiveness and development.

In this context, student expectations have grown. They expect the HEIs to prepare them for future workplace skills ensuring their well-being, a sense of belonging, flexibility and collaboration in student support intervention programmes (Peterson et al., 2023). However, when students fail to change shared knowledge and services into opportunities to succeed, the role of HEIs becomes questionable (Gore, 2020; Nel, 2014). The need for the empowerment of students and campus members to navigate the complexities of HEIs and seize the opportunities for student success is inevitable (Tiroyabone and Strydom, 2021).

Collecting and Analysis of Information as a Student Success Intervention Strategy

Effective student success interventions in HEIs begin with the collection and analysis of data of predominantly at-risk students. The implementation of accurate interventions close teaching and learning gaps, thereby improving graduation rates and reducing attrition (Wheeler, 2023).

Dake and Buabeng-Andoh, (2022) argue that the use of patterns to predict learners' need for additional support reduce attrition. Their empirical study underlines that student success intervention programmes should address the entire academic journey, not only the first academic year. Data drawn through use of technological innovations such as Education Data Mining (EDM) underlines the significance of 4IR tools (Kayembe and Nel, 2019). Since the 4IR harnessed an environment of unlimited information through its powerful technological evolution, the EDM has become a useful in early alert systems. It not only activates student support interventions, but it also serves as an early alert strategy which can be implemented within the first four to eight weeks of a semester (Manik, 2017). It further provides the foundation that facilitates student intervention to increase student success through patterns that predict academic performances, the learning behaviour and the learning assistance requirements of students (Dake and Buabeng-Andoh, 2022; du Plessis et al., 2022).

Despite the systemic inequality, ill-preparedness of administrative and human resources and the lack of readiness for the 4IR in South African HEIs, the global changes that affect most HEIs create opportunities for building resilience, upskilling, collaboration, partnership and adaptive processes that support students’ academic success, specifically within a crisis situation, such as the pandemic era that changed society (du Plessis et al., 2022; Kayembe and Nel, 2019).

Technological revolutions often introduce new technologies that reorganises industries and foster a convergence of humanity and technology. As skills transformation experts put it, “the 5IR is a natural evolution of the 4IR, [but] putting more emphasis on the human aspect, sustainability, resilience and agility” (Sawahel, 2021). Hence, it is increasingly fundamental to prepare students’ skills set and support them academically to contribute positively to economic future and scientific collaborations.

Bridging Programmes as a Student Success Intervention Strategy

During early 2000s, the bridging or foundation programmes were introduced to eradicate educational disadvantages and deficits in student learning practices in HEIs (Manik, 2017). Factors such as language proficiency, the limited social and educational cultural capacity of parental support, and the lack of formal career guidance are major factors contributing to the student’s ability to graduate successfully, (Thomas and Maree, 2022).

Collaborative Programmes as a Student Success Intervention Strategy

Supplementary academic support programmes focus on specific modules identified as “high risk” due to low pass rates. Risky modules are supported through supplemental instructions and tutorial sessions in addition to the formal lectures (Manik, 2017). Students’ ability to adjust within the academic and social setting of the HEIs, manage the workload, adapt to teaching and learning methods. Students seek support is through intrinsic motivation and preparedness to adjust to change (Thomas and Maree, 2022). Peer learning, with master students leading content clarification encourages student participation and meaningful collaborative learning. Supplemental and tutorial sessions should not be limited to students at risk of failing but should provide continuously to support all students from admission to graduation (Manik, 2017).

Writing Centre Programmes as a Student Success Intervention Strategy

The Writing Centre support programme is a widely implemented student support strategy focusing on the academic needs of students. It provides valuable feedback and guidance during the preparation and crafting of draft assignments before submission. Time management and the ability to seek assistance are also critical measures for student success (Thomas and Maree, 2022) Writing Centres create platforms for dialogue between the writing expert and the student in contrast to formative authoritative comments during the assessment process (Manik, 2017). However, it is experienced that students often underutilise this programme in practice.

Monitoring and Mentoring Programmes as a Student Success Intervention Strategy

Student monitoring and mentorship involve multiple resources and intervention tasks. Monitoring student performance in attendance, tasks and formal assessments helps to identify poor performance to take effective remedial actions. For instance, interviews and referrals for academic counselling could be methods used to identify whether students require individual tutoring with qualified discipline tutor (Manik, 2017). This intervention enables teaching and learning inclusion, academic support, performance improvement indicators including pass and completion rates. (Peterson et al., 2023).

The mentorship programme aims to provide transition support from high school to HE by assigning small groups of first-year students to senior students as peer supporters (Manik, 2017). Mentor-mentee engagement provides a holistic and responsive network to collaborate, empower and support students through academic advising strategies (Tiroyabone and Strydom, 2021).

Early Academic Intervention Strategies for Student Success

A HEIs within the Cape province uses mark trackers, learner management system (LMS) activities, lecturer questionnaires and student interviews to apply a coherent response to early academic intervention (Manik, 2017). The capturing of data on LMS assists in coordinating student intervention strategies supported by evidence-based and systemic intervention implementation processes (Tiroyabone and Strydom, 2021). Despite the high cost, the effectiveness of LMS data lies in its ability to proactively support early academic intervention programmes (Manik, 2017).

5. Analytical Findings: Challenges and Opportunities for Student Success

There are several challenges and opportunities to the advancement of student success which need to be addressed, identified as follows:

Opportunities:

Adaptability to sudden changes coupled with growth mindset approaches create conditions for operational discussions within the HE system. When HEIs adopt interventions that are constructive in nature, and reflected in progressive feedback, creates opportunities for societal change, promotion of equity and enhancement of innovative support structures for well-being (Peterson et al., 2023). Although the sudden shift to online learning affected by the COVID-19 changes altered social norms, increased awareness and continuous practice of mental health well-being guidelines in work-life balance creates an encouraging educational environment (du Plessis et al., 2022; Peterson et al., 2023).

Additionally, cross-sectoral learning enhances students understanding of field specialisation that influence the political, and the nature of social life. Thus, leading to tailored learning such as development of basic technology skills to increase student success in any given field (Kayembe and Nel, 2019). While it is critical for HEIs to shape institutional academic interventions, it is equally important to involve students in designing academic interventions to foster accountability, ownership and to advance a participatory approach. Apart from promoting a growing mindset, a participatory approach unleashes inclusion as a student support strategy. A strategy that gives opportunities for HEIs to include traditional and culturally inherited practices and knowledge within curriculum (Manik, 2017, and Peterson et al., 2023).

Learning from others creates an intentional approach to improve structured interventions that meet students' needs and contextualise support within the academic process. Such approach provides support and activities students require through a coordinated support service point (Tiroyabone and Strydom, 2021). However, several challenges remain.

Challenges:

HEIs lack of documented reintegration strategies for staff component returning to work, after a critical life-changing interruption such loss of a significant parent in providing emotional and social support (du Plessis et al., 2022). A real-time intervention remains wanting and affects the effectiveness of any risk-mitigation strategy appropriate to address each student's academic success needs. Given the narrow definition of student success, the quality measuring, performance indicators and educational outcomes are equally challenging to conceptualise, let alone operationalise within HE space (Kayembe and Nel, 2019). Student success is still perceived as a linear process of access, progress, completion of qualification and graduation. This perception, overlooks the need to accommodate the complexities of students' lives, including exit from HE environment and return due to various obligations (Peterson et al., 2023).

The absence of a shared definition of student success aligned with broad institutional transformation leads to misconception, miscommunication and lack of efforts to upskill and reskill lecturers and institutional staff (Wheeler, 2023). Student success is a holistic effort and includes students' commitment and positive attitude towards academic outcomes, not solely institutional efforts (Manik, 2017). Various stakeholders play instrumental roles in student success interventions, including the HEIs that provide academic curriculum. Governments are responsible for drafting educational policies and practices. But the students are the major stakeholders, and their futures depend on sustainable and progressive educational environments are the major stakeholders (Ntombana, Gwala, and Sibanda, 2023). The shortages in human resource coupled by non-compliance to support requests of students needing support in most HEIs, pose a threat to the effective delivery of student success interventions.

6. Conclusion

Academic interventions are increasingly participatory, with students involved in shaping them to ensure relevance and effectiveness. This observation answers this study's research questions related to the design and implementation of academic interventions within the South African Higher Education system. Although the findings suggest that student support initiatives focus on encouraging a growth mindset, mental well-being, and culturally inclusive education to promote student success throughout their academic and early professional careers, there is still limited consensus on the definition of student success within South African HEIs. Given that the perception of student success focuses on linear academic progress, it also fails to account for the complexities of student lives. The lack of reintegration strategies within HEIs, specifically between the HE institutional faculties, and students remain one of the major barriers to the attainment of student success.

7. Recommendation

Arguably, to enhance student success, HEIs in South Africa must adopt a more inclusive and holistic definition of success that aligns with both institutional and societal goals. Student-led academic support initiatives should not

occur in silos but collectively. The prioritisation of cross-sectoral learning, the integration of African epistemologies in the curriculum should be given special attention. In addition to this, there is a need to streamline the institutional administrative processes. Integration strategies are also key to better support returning students. Additionally, a strengthened collaboration among stakeholders, including staff up-skilling, remains a priority to better address the evolving needs of students in HEIs. The study recommends a longitudinal study assessing the long-term impact of academic support initiatives. This approach will assist in tracking intervention outcomes beyond graduation and into early professional careers. Furthermore, accelerating the integration of African knowledge systems into the highly Eurocentric curricula could provide insights into the effects on student engagement, performance, and their well-being. Institutional collaborations create conditions to examine both local and international practices and determine lessons to mitigate challenges impacting students' success in South African HEIs. Moving beyond the traditional metrics of student success offers an opportunity to explore other aspects influencing student success such as employability and tact in the ethical use of technological tools such as AI.

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