

Student support through *Success Tutoring*: The case of a student support initiative by a student success programme in a faculty at the University of the Witwatersrand

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Executive Summary

The South African higher education sector has experienced turmoil in recent years. The reasons are many and varied, ranging from a national funding crisis, subsequent protests against exorbitant university fees, and underprepared students entering the system after high school, to calls for curriculum reform and decolonisation, accessibility issues, and a higher education system that seems to be perpetuating student marginalisation. As a result, the University of the Witwatersrand has committed through its Learning and Teaching Plan (2015/2019) to broaden the participation of rural, black, female, disabled, and mature students, and to provide them with appropriate support for achieving greater success with access. This case study serves to determine the effectiveness of a non-academic student support and success programme in one of the faculties at the university, by linking 2015/2016 programme attendance data with student biographical information (collected with a biographical questionnaire) for the same period. The integrated data was also linked to the academic performance of both participants and non-participants, and disaggregated based on gender, school quintile and, financial aid status. The analysis shows that the average academic performance of participants was higher than that of non-participants in the same categories. Additionally, the data

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reflects a gradual increase in the average academic performance of participants when comparing the 2015 and 2016 cohorts. Consequently, this preliminary evaluation of the programme's impact on student performance shows it has the potential of improving student success.

Keywords/Tags

data analytics, higher education, student biographic data, South Africa, student success, student support

Case Study

Problem statement

Over the last two decades the South African higher education sector has experienced a rapid influx of diverse student populations. This massification brings with it a plethora of challenges and consequences. They range from troubling throughput and attrition rates (particularly among first-year cohorts), severe pressures on human and infrastructural resources, and socio-economic struggles, to psychosocial concerns and challenges faced by underprepared first-generation students. Correspondingly, tertiary institutions, South Africa's Department of Higher Education and Training (DHET) and Council on Higher Education (CHE), and the South African Institute for Distance Education (*Saide*) have prioritised the student support and success agenda. The DHET's University Capacity Development Grant (UCDG) identifies the enhancement of student success as a key focus area. *Saide's* partnership with the Kresge Foundation through the Siyaphumelela initiative emphasises the use of data analytics to improve student retention and success. In addition, universities and other academic institutions of higher learning have implemented numerous academic and non-academic student support and success initiatives.

The scholarship of teaching and learning documents the multiplicity of academic, curriculum, and pedagogic initiatives implemented to enhance student success within academic programmes. Similarly, the necessity for non-academic/co-curricular support is well documented, as students' academic performance is often affected by non-academic factors. In South Africa, these initiatives are usually geared at: 1) students' transition from the secondary to tertiary education environment; 2) students' first year experience; 3) academic literacies and excellence skills³; and 4) social integration through learning communities. Moreover, and despite some still taking a reactive approach, being proactive and pre-emptive in the design and implementation of interventions seems to be the way of the future. This is made possible by the availability of large datasets containing personal student information, degree programme and course information, and progression data spanning extended periods of time.

The digital age and the technological advancements it brings mean that increased quantities of data are either being collected or available for collection. Stakeholders are able to gather student biographic data⁴, intervention data generated through academic and non-academic initiatives and interventions, and longitudinal institutional data. By analysing and integrating these datasets, trends and anomalies can be identified, which allows for greater understanding of students and their needs, and may result in the development and implementation of responsive initiatives. What follows is a description and brief discussion of a non-academic student success initiative implemented by a student support and success programme in one of the faculties at the University of the Witwatersrand. The authors integrate and analyse multiple datasets relevant to the students involved, and share the interpreted results.

³ *I.e.* academic writing and language skills, presentation skills, research and analytic abilities, time management, study skills for university, planning, note taking, test and exam techniques, and goal setting, among others.

⁴ *E.g.* school quintile information, grade 12 results, language information, and funding details.

Initiative description

The University of the Witwatersrand (Wits) has been ranked as the number one university on the African continent by the Shanghai Rankings⁵. Contending only with the University of Cape Town in most rankings, it strives for academic and research excellence. With five faculties consisting of 34 schools, Wits registered about 37 000 students in 2016 of which 51% were undergraduates and 49% postgraduates. Nevertheless, the percentage of undergraduate students who had graduated in minimum time by 2016 came in at 37% for three-year qualifications (2013 cohort) and 43% for four-year qualifications (2012 cohort). Given this reality and as pointed out above, Wits has committed through its Learning and Teaching Plan (2015/2019) to broaden the participation of rural, black, female, disabled, and mature students, and to provide them with appropriate support for achieving greater success with access. The plan calls for a range of programmes that support students' transitioning from high school to higher education, rooted in research, and to increase the percentage of students who complete their studies in minimum time by 5% in 2019. Consequently, numerous student support and success programmes have been implemented at Wits.

In 2014 the Faculty of Commerce, Law, and Management (CLM) at Wits formed part of a university-wide Teaching Development Grant (TDG)⁶ funding application. CLM received funding for four projects, one of which was initially supposed to address the needs of students classified as *at risk*⁷. During the study break in September 2014 an intervention was conducted for a particular cohort of *at-risk* CLM students, but it was poorly attended. The two main reasons provided by students for their poor attendance was that the intervention ran outside the academic programme and that the students did not believe they were *at risk*. In October 2014 two coordinators were appointed to help conceptualise, design, and

⁵ Academic Ranking of World Universities (ARWU), 2017.

⁶ From 2018 onwards the TDG will become the University Capacity Development Grant (UCDG).

⁷ DHET's terminology.

implement a pre-emptive, success-orientated student support and success initiative for the faculty. Today the Road to Success Programme (RSP) aims to supplement and complement the academic programme and while it initially focused on first-year and readmitted students, it now services approximately 5 200 undergraduate students in the faculty.

By far the most important dimension to the RSP is the cohort of 20 to 30 non-academic tutors employed as part of the programme. Known as *Success Tutors*, their purpose is to run non-academic group tutorials, engage with students in one-on-one settings, participate in awareness drives, and most importantly, provide input and advice to enhance the programme. These tutors are senior undergraduate or honours students within the university, who have to apply for *Success Tutoring* positions before the commencement of a new academic year. Applicants are shortlisted, interviewed, and then employed. They receive both RSP-specific training (conducted by the RSP Coordinators) and student-in-distress training (conducted by the university's counselling unit). *Success Tutors* are the RSP's most important link to the student body, thus making it possible for the RSP to use both student voice and data to be responsive to the needs of the students they support.

Wits' Analytics and Institutional Research Unit (AIRU) started its initiative of collecting student home and background information in 2015, as part of the Siyaphumelela (We Succeed) initiative. The objectives of this project are to: 1) obtain a comprehensive understanding of the students coming from high school to university; 2) establish their readiness for university; 3) understand whether students' socio-economic background influences their chances of success at university; and 4) explore relevant interventions that may help them succeed in their first year of study. AIRU's student Biographic Questionnaire (BQ) was first implemented at Wits in January 2016 during registration, following approval from the University Registrar, and has since become a permanent part of the university's

registration process. The BQ tool collects background information from first-year, new-to-Wits undergraduate students, who are required to complete the questionnaire as part of their registration. The information collected spans home background⁸, school background⁹, and additional information¹⁰, and is collected in an attempt to better understand first-year cohorts.

Data integration and analysis

In 2017 the RSP and AIRU decided to incorporate their datasets to try and look for evidence that supports the success of the RSP's group tutorials. It was agreed that AIRU's BQ data for the period 2015 and 2016 would be integrated with the RSP's first-year group tutorial attendance data for the same period¹¹. The data shows that 52% of CLM's first-year students from this period participated in the RSP's non-compulsory group tutorials, while 48% did not (see Appendix A, Figure 1A). A breakdown analysis of these students revealed a 50% split between female and male participants (see Appendix A, Figure 1B). The first-year CLM students who participated in the RSP's group tutorials were further classified based on how well-resourced the high schools they attended were (*i.e.* school quintiles one to five and private schools). Figure 1C (see Appendix A) shows that 57% of the students who participated in the RSP's group tutorials during this period attended quintile four to five and private schools. About 43% of the participants attended quintile one to three schools. This implies that a large proportion of the first-year CLM students come from low-resourced schools and would therefore require some kind of support during their studies. Finally, the cohort was classified based on their funding status (*i.e.* receiving funding from the National Student Financial Aid Scheme (NSFAS) or other forms of financial aid, like bursaries or scholarships). Figure 1D (see Appendix A) shows that 42% of the students were being funded by NSFAS, while 58% were reliant on other forms of financial aid. The high percentage of

⁸ Facilities, location, student generation status, education background, and economic status.

⁹ Location, classification, infrastructure, and language of instruction.

¹⁰ Funding means, part-time employment, and accommodation status.

¹¹ Note that RSP group tutorials are not mandatory and that students choose to participate in them.

students receiving NSFAS funding implies that most of the students potentially come from families that are financially challenged, and thus unable to provide adequate financial support.

Findings

Claiming cause and effect in this kind of research is not easy and seldom possible. In this instance there appears to be an upward trend in academic performance for all categories of students reported on, regardless of whether they attended RSP group tutorials or not, although the performance of RSP attendees seem higher than that of non-attendees. Consequently, the possibility of other variables influencing these findings cannot be discounted and should be considered when reading the results shared below.

Academic performance based on gender¹²

The average academic performance of both female and male CLM first-year students who participated in the RSP was higher than that of the students who did not participate in the programme. Female RSP attendees' average academic performance in 2015 and 2016 was 56% and 57% respectively, while female non-attendees' average academic performance for the same period was recorded as 48% in 2015 and 52% in 2016. The male RSP attendees had an average academic performance of 51% in 2015 and 55% in 2016, compared to their non-RSP counterparts who had an average academic performance of 43% in 2015 and 48% in 2016.

Academic performance based on school quintile¹³

The average academic performance of RSP participants from school quintiles one to three and those from school quintiles four and five was higher than that of non-participants in the same categories. The

¹² See Appendix B, Figure 2.

¹³ See Appendix B, Figure 2.

average academic performance for RSP attendees in school quintiles one to three was 47% in 2015 and 56% in 2016, while those in quintiles four and five were 55% and 56% in 2015 and 2016 respectively. This is higher than the academic performance of students who did not participate in the RSP during the same period. This cohort recorded an average academic performance of 35% in 2015 and 50% in 2016 for students from quintiles one to three schools, and an average academic performance of 44% and 51% in 2015 and 2016 respectively, for students from quintiles four and five schools.

Academic performance based on financial aid¹⁴

The average academic performance of RSP participants funded by NSFAS and other forms of financial aid was higher than their non-RSP counterparts. The average academic performance of RSP students on NSFAS was 50% and 54% in 2015 and 2016 respectively, while the non-RSP students on NSFAS had an academic average of 27% in 2015 and 50% in 2016. Similarly, the average academic performance of RSP students on other forms of financial aid was 59% in 2015 and 2016, compared to the non-RSP cohort whose average academic performance was 50% in 2015 and 57% in 2016. Worth noting is that the academic performance of RSP attendees who received other forms of financial aid was the highest of all measured variables and the same in 2015 and 2016. This could be attributed to the fact that financial aid providers generally select their recipients based on academic merit, which implies that top-performing students received an extra boost in their performance when they engaged with the RSP.

Conclusions

The need for additional academic and non-academic student support in the current South African higher education climate is irrefutable. This case study highlights the impact of a non-academic support initiative (the RSP) utilising a cohort of *Success Tutors* to facilitate RSP group tutorials, on first-year

¹⁴ See Appendix B, Figure 2.

students in a faculty at the University of the Witwatersrand. The disaggregation of RSP participant and non-participant average academic performance based on gender, school quintile, and financial aid respectively, shows that RSP students' academic performance was consistently higher than those who did not participate in the programme. Additionally, the data also reflects a gradual increase in the average academic performance of RSP participants when comparing the 2015 and 2016 cohorts, which is true for all groups of students reported on. Consequently, this preliminary evaluation of the RSP's impact on student performance shows a link between improved student success in CLM and the work done by *Success Tutors* during RSP group tutorials. Considering that the RSP (and its *Success Tutoring* approach) is still in its infancy, and that the intention is to grow and refine the programme in coming years, future initiatives will undoubtedly yield more data. This in turn would generate longitudinal datasets that may provide AIRU and the RSP more conclusive evidence of the intervention's impact. Wits is currently planning to undertake an extensive evaluation of all student success initiatives at the university. It is anticipated that initiatives with the greatest impact on student success will be recommended for scaling-up across the university.

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Appendix A

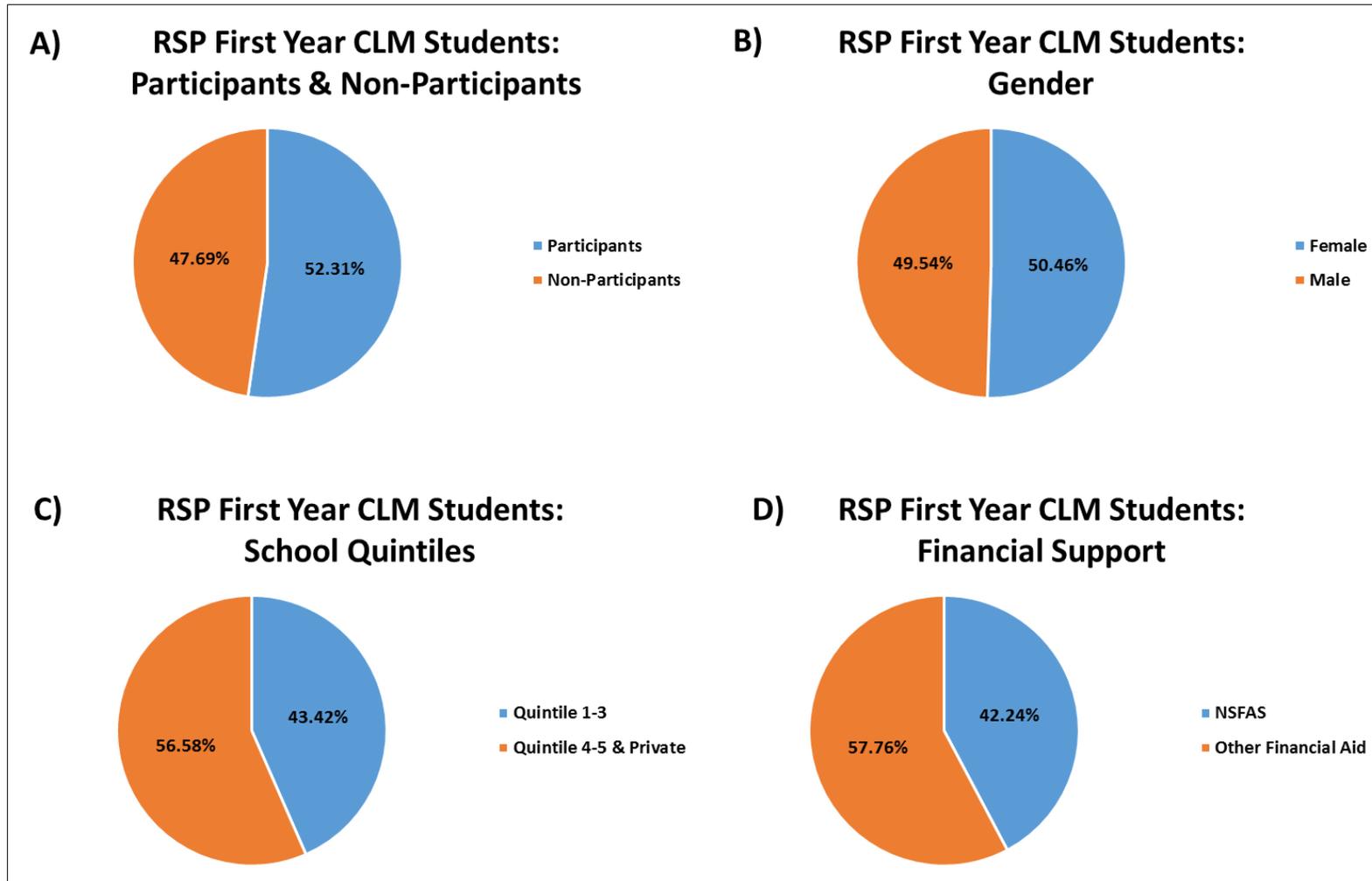


Figure 1: Profile of 2015 and 2016 RSP participants

Appendix B

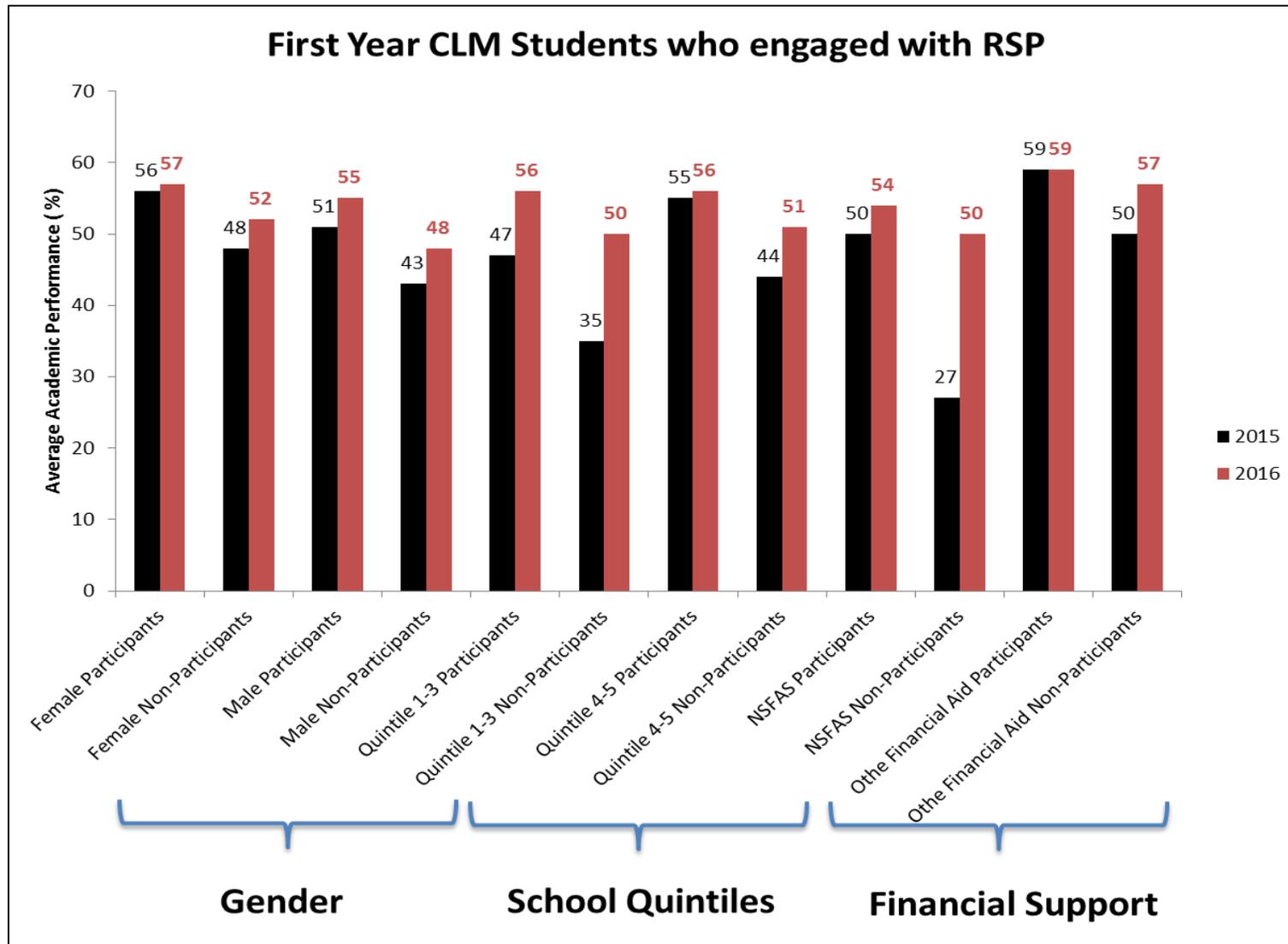


Figure 2: Academic performance breakdown of RSP participants in 2015 and 2016, based on gender, school quintile, and financial support