

TAU Project Title

A Framework for Improving Students' Pass Rate in High-risk Modules in the Faculty of ICT

Your Name and Name of Your Institution

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Aim and Processes / Methods

Education plays an important role in the betterment of a nation and society. However, education is unable to play a vital role in the betterment of society if there is a high failure rate which could result in a high dropout rate in the higher institutions of learning (Van Zyl, Dampier and Ngwenya 2020; DHET, 2012; DHET, 2019a; DHET, 2019b; DHET, 2020; Rashid and Awa, 2019; Bäumke, Eckerlein, and Dresel, 2018). The review of literature has shown that there are multiple reasons as to why students fail at universities. These reasons include namely lack of motivation and perseverance, the absence of preparation and effort, poor time management, poor educational system/teaching style, procrastination, the structure of the curriculum, personal issues, mental issues, financially issues, medical problems, psycho-social, among many others (Van Zyl, Dampier and Ngwenya 2020; DHET, 2012; DHET, 2019a; DHET, 2019b; DHET, 2020; Mokhampanyane, 2018; Tomul and Polat 2013; Rashid and Awa, 2019; Bäumke, Eckerlein and Dresel, 2018). Thus, this intractable challenge has been the focus of many scholars globally.

In response to this, student retention and tutoring strategies have been adopted in a bid to remedy the situation over the past years (Van Zyl, Dampier and Ngwenya 2020; DHET, 2012; DHET, 2019a; DHET, 2019b; DHET, 2020; Mokhampanyane, 2018; Tomul and Polat 2013; Rashid and Awa, 2019; Bäumke, Eckerlein and Dresel, 2018). However, the problems or challenges persist. This is because universities continue to identify high-risk modules at the end of the semester when it is too late to assist the at-risk students. In addition, tutors are allocated to these high-risk subjects without checking if the problem is content-wise or psycho-social, therefore universities are not responding effectively to the problem at hand. Moreover, one/two tutors are allocated to high-risk subjects with a large group of students thus at-risk students continue to suffer as they are not getting the individual-attention they require in order to improve their results.

Thus, aim the of this project was to design a framework that can improve the pass rate in the high-risk modules. The proposed framework is illustrated in Figure 1. This was achieved by identifying at-risk students after each assessment have been written i.e., assignments, class tests, formative assessments/semester tests, projects, among others. This is because these assessments are the ones that contribute to the final of the students. Lecturers were required to have a meeting with the at-risk student after each assessment. This was done to determine if the problem is content-wise or psycho-social. Thereafter, proper support was provided/offered to the student before the end of the semester/before multiple assessments

have been written. Moreover, after providing support to the student a progress report was given to the line manager in order to determine if the student has improved or not. This helped the students to do well.

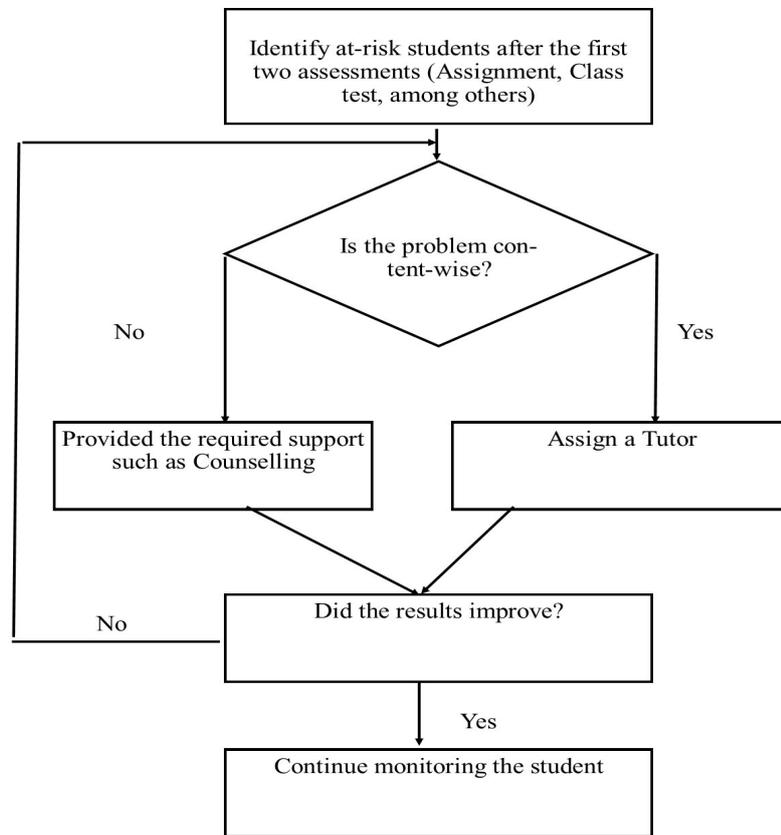


Figure 1: Proposed Framework for Improving pass rate in high-risk modules

In addition, a qualitative research methodology was adopted to achieve the main aim of this project. This research methodology was selected because it serves as an adequate tool for investigating complex phenomena (Jabareen, 2009). In addition, conceptual frameworks are products of qualitative processes and the project aim was to develop a framework. The main phases/steps that were followed when designing the proposed framework include, namely: mapping the selected data sources, extensive reading and categorizing of the selected data, identifying and naming concepts, deconstructing and categorizing the concepts, integrating concepts, synthesis, resynthesis, and validating the conceptual framework (Rashid and Awa, 2019; Bäumle, Eckerlein and Dresel, 2018; Moodley and Singh, 2015).

Moreover, humanism learning theory was used in this project, this is because the learning theory leads to self-actualization. As a result, it helped both the lecturers and students to become the best they can be. In addition, the theory has important principles namely (Cruz, Goff and Marsh, 2020; Nugroho and Ediyono, 2020):

1. Student-centered, where students are encouraged to take control over their education.
2. Fostering engagement to inspire students to become self-motivated to learn.
3. The importance of self-evaluation.
4. A safe learning environment.

Furthermore, the humanism learning theory makes provision for teachers and students to play a role in the teaching and learning environment by creating opportunities for group work with peers, providing motivation for classroom tasks, among others (Cruz, Goff and Marsh, 2020; Nugroho and Ediyono, 2020). In addition, the observation method was used in order to access how the lecturer's delivery content in class whereby we had to visit classes and view recorded class videos. Based on the observation during class visit and after viewing the recorded class videos, I recommend that lecturers use teaching strategies such as Brainstorming Session, Think-Pair-Share/Peer learning (Student Centered Approach), and Teamwork and delegation activities (Group Discussion) in order to improve students' interaction/engagement in class and provide a supportive atmosphere to encourage student's participation in.

Achievement and Challenges

The proposed framework managed to improve the pass rate in the three high-risk modules where it was applied. Due to ethical issues, the correct names of the modules where the proposed framework was applied are not used in the report – but will be referred to as generic ICT numbered modules. ICT1 module with 52% pass rate managed to improve the pass rate to 86% in the first Formative Assessment. ICT2 module with 55% pass rate managed to improve the pass rate to 78% in the first Formative Assessment. While ICT3 module with 48% managed to improve the pass rate to 69% in the first Formative Assessment.

The challenges faced during the implementation of the proposed framework include students did not want to visit Student Development and Support (SDS) for counselling as they thought what they discussed with the SDS staff member will be shared with lecturers. In addition, due to limited funding, we could not hire more tutors as we wanted. At the beginning it was difficult for lecturers to apply the humanism learning theory during the teaching and learning process.

Future Work

In the future, it would be great if the universities can also have a platform where students can also indicate if they have psycho-social issues or other issues that might affect their study performance. This should be implemented in order to ensure that support is provided to any student even though they might be passing their assessments. This will help more students to perform at their optimal level. In addition, the proposed framework will be applied and evaluated in multiple high-risk modules. Online counselling could be used so that students could be assisted even when they are at home during recess or for students who are shy to

visit SDS offices. In addition, a system should be developed and be linked with ITS in order to flag at-risk students so that they can be helped as soon as possible.

References

Bäulke, L., Eckerlein, N., and Dresel, M. 2018. Interrelations between motivational regulation, procrastination and college dropout intentions. *Unterrichtswissenschaft*, 46(4): 461-479.

DHET (Department of Higher Education and Training), 2012. Green paper for post-school education and training. Pretoria: DHET.

DHET (Department of Higher Education and Training), 2019a. 2000 to 2016 First time entering undergraduate cohort studies for public higher education institutions. Pretoria, DHET.

DHET (Department of Higher Education and Training), 2019b. Ministerial statement on student enrolment planning 2019/20 for universities. Pretoria: DHET.

DHET (Department of Higher Education and Training), 2020, National academic support guidelines for technical and Vocational education and training colleges, Pretoria: DHET.

Cruz, J., Goff, M. H., & Marsh, J. P. 2020. Building the mentoring relationship: humanism and the importance of storytelling between mentor and mentee. *Mentoring & Tutoring: Partnership in Learning*, 28(2), 104-125.

Jabareen, Y. 2009. Building a Conceptual Framework: Philosophy, Definitions, and Procedure, 49- 62.

Mokhampanyane, M.C.C. 2018. A Strategy Guide to Improve Poor Academic Performance of First Year Accounting Students at a University of Technology, 1-283.

Nugroho, L. A., & Ediyono, S. 2020. Enhancing humanism values through higher education: A case study on implementation of INQF oriented curriculum. In *Proceedings of the 4th International Conference on Learning Innovation and Quality Education*, 1-6.

Rashid, T. and Awan, A.G. 2019. Linking the timing of career and technical education coursetaking with high school dropout and college-going behavior. *American Educational Research Journal*, 55(2):325-361.

Tomul, E. and Polat, G. 2013. The effects of socioeconomic characteristics of students on their academic achievement in higher education. *American Journal of Educational Research*, 1(10):449-455.

Tulbure, C. 2012. Learning styles, teaching strategies and academic achievement in higher education: A cross-sectional investigation, *Procedia-Social and Behavioural Sciences*, 33:398-402.

Van Zyl-Schalekamp, C. and Mtombeni, P. 2015. Social-background factors affecting the academic success of first-year sociology students at the University of Johannesburg, South Africa. *Journal of Sociology and Social Anthropology*, 6(1):31-44.

Vorozhbit, M.P. 2012. Effect of supplemental instruction on student success. (Unpublished Masters Dissertation), Iowa State University.

Williams, K.C. and Williams, C.C. 2010. Five key ingredients for improving student motivation. *Research in Higher Education Journal*, 11:1-24.

Young, M. and Gamble, J. 2006. Knowledge, curriculum and qualifications for further education in South Africa. Pretoria: HSRC.

Moodley, P. and Singh, R. J. 2015. Addressing student dropout rates at South African universities. *Alternation*. Special Edition No 17, 91–115.

Van Zyl, A., Dampier, G. & Ngwenya, N. 2020. Effective Institutional Intervention Where It Makes the Biggest Difference to Student Success: The University of Johannesburg (UJ) Integrated Student Success Initiative (ISSI). *Journal of Student Affairs in Africa*, 8(2), 59-71.