



Comments: Development of an early career academic supervisor in Statistics - a discussion on a guiding rubric

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1 Introduction

The paper gives a comprehensive review of the landscape of academic Statistics against the backdrop of Statistics being in crisis in South Africa, with various challenges being identified within this setting. Challenges include the lack of senior researchers to act as mentors to younger academics in undertaking research supervision thus affecting effective and successful supervision of students; the difficulties in retaining students in postgraduate degrees given their high employability and competitive salaries offered by industry, and the need for consistent assessment of doctoral degrees given that the home faculty and assessment criteria across faculties may differ. Apart from highlighting these challenges, the paper seeks to re-think the present approaches in the supervision process for a doctoral degree in Statistics in South Africa. A novel solution is proposed through the construction and use of a guiding rubric to steer doctoral supervision and a research network in the discipline towards a position of strength.

In the broader context of postgraduate education in South Africa, the *National Planning Commission: National Development plan 2030* report, see [2], states the objective of doubling the postgraduate output in a 20-year period with the aim of more than 100 doctoral graduates per million per year being produced by 2030. The *2019 White Paper on Science, Technology, and Innovation*, see [1], draws attention to the need for better support structures for postgraduate students and greater supervisory capacity to realise this objective.

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2 Discussion of proposed guiding rubric

Reflecting on the challenges raised, the proposal of constructing a guiding rubric for formal redress describes promising first steps towards transforming doctoral supervision in Statistics in South Africa. Essential to the success of such an endeavour is the need for widespread consultation in order to effect changes supported by collaboration and collectiveness of thought. Creating a forum for Statistics academics to share their experiences and learn from their peers will assist in creating a community of practice.

Contributing to the dialogue on transforming postgraduate supervision, the use of transformative workshops was explored for postgraduate students in the School of Public Health at Wits University in an attempt to investigate decolonial and socially just ways of supervision. The workshop afforded students the opportunity to network, share experiences and learn from each other providing valuable lessons in understanding “group relationships, power and accountability in supervision”; see [3].

Although this study was aimed at postgraduate students, it is envisaged that extensive consultation amongst academics in the statistics discipline through workshops, surveys, and interviews could better inform the solutions for the key challenges raised and the construction of the guiding rubric whilst ensuring an inclusive voice on the proposed solutions.

It is true that the role of the supervisor is far more involved than supervising the student on their research and thesis writing; the student needs to be mentored in other paths essential to the research journey like the funding application process; the student should feel supported in the research journey, feedback must be provided timeously and critiquing of the student’s work must be done in a manner that nurtures growth rather than discourages the student. This can be overwhelming to early career researchers who themselves may be still new to some of these processes whilst also handling other responsibilities in their roles.

To guide and support the student and supervisor in the research supervision process, the current practice at my institution is that an agreement (Statement of Principles for Postgraduate Supervision) is signed by the supervisor and student at the beginning of the research journey. My experience has found that the supervision experience varies; with some students requiring more support and management whilst others being self-directed and more easily managed. Hence, the supervisor needs to identify early in the student-supervisor interaction if a management style that is traditionally adopted needs to be adjusted. Personally, in addition to the statement of principles that is signed at the organisational level, the use of an operations manual type document that details the process, frequency, and medium of interactions, so that both the student and supervisor agree on the expectations, and finer details on future interactions has enabled a well-defined and easily managed supervision process holding each party accountable through the process.

The creation of the early career network would afford other conversations and ideas to better assist early career supervisors in this journey. A guideline document or user manual that maps out the broader landscape and speaks holistically to the roles and activities of the early-career academic in their research journey and the development of their students

will be an invaluable resource in supporting the lateral mentoring process and growth in the discipline.

The use of a rubric will aid in transparency and consistency in the summative evaluation process, but can also provide the student with concrete criteria for self-evaluation in the formative process and guide the supervisor in the supervision process.

There are two facets to the successful adoption of the proposal: a collaborative consultation phase and consistent hand-off processes in the examination phase. In the collaborative consultation phase, academic staff at all statistics departments in South Africa should be made aware of and be able to contribute to the dialogue, construction, and review of the rubric. The examination process at various universities may be handled differently. Generally, supervisors nominate examiners together with the supporting motivation and CVs. Once a candidate is ready for final submission and examination, the process is handled independently by the faculty staff, and the supervisor is no longer involved. From experience, a faculty general rubric that goes through the relevant university committees is supplied to the internal and external examiner with other documents in the examination pack. University faculty committees involved in postgraduate studies will need to be consulted and provided with the relevant motivation for the inclusion of the proposed guiding rubric in the doctoral examination process.

3 Conclusion

Based on the present South African context and supervision capacity challenges in the Statistics discipline, it is important to question and re-think previous approaches in postgraduate supervision to enable suitable transformations toward best practice and a stronger discipline. A collective conversation and solution from all academic Statisticians will best support this transformation.

References

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