

Alternation African Scholarship Book Series (AASBS)

POSTGRADUATE SUPERVISION IN TRANSFORMATION INDABA: CONTEXTS, CHALLENGES, OPPORTUNITIES AND PRAXES

Editors: Allucia Lulu Nkosi-Shokane, Gedala Mulliah Naidoo AND Johannes A. Smit, Nobuhle Ndimande-Hlongwa

Alternation African Scholarship Book Series (AASBS)

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- Ramrathan, L., N. Ndimande-Hlongwa, N. Mkhize & J.A. Smit (eds.). 2020. *Re-thinking the Humanities Curriculum in the Time of COVID-19. Volume #01.*
- Ndimande-Hlongwa, N., L. Ramrathan, N. Mkhize & J.A. Smit (eds.). 2020. *Technology-based Teaching and Learning in Higher Education during the Time of COVID-19. Volume #02.*
- Mkhize, N., N. Ndimande-Hlongwa, L. Ramrathan & J.A. Smit (eds.). 2020. *Teaching and Learning in Higher Education in the Time of COVID-19. Volume #03.*
- Smit, J.A., N. Mkhize, N. Ndimande-Hlongwa & L. Ramrathan (eds.). 2020. *Learner and Subject at the Dawn of Digital Research-Led Teaching and Learning in the Time of COVID-19. Volume #04.*
- Manik, S. (ed.). 2020. *From High-risk Sports to Sports as High Risk: Crisis, Capitulation and Creativity during COVID-19. Volume #05.*
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- Singh, U.G., P.S. Reddy, M.W. Phiri & P. Appavoo (eds.). 2021. *Global Trends in Management, IT and Governance in an E-World. (E-MIG 2019 International.) Volume #07.*
- Amin, N. & R. Dhunpath (eds.). 2021. *(Re)Learning to Teach in Contexts of Crises. Volume #08.*
- Bob, U. (ed.). 2022. *The COVID-19 Pandemic: Impacts of the Corona Virus on Sport and Society. Volume #09.*
- Moran, S. 2022. *Primitive Times. Volume #10.*
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- Samuel, M.A. & H. Mariaye 2023. *Transforming Postgraduate Education in Africa. Volume #14.*
- Mutula, S.M. (ed.). 2024. *The Diasporean I: The Southern African Perspectives. Volume #15.*
- Mutula, S.M. (ed.). 2024. *The Diasporean II: Perspectives from Beyond Southern Africa. Volume #16.*
- Patrick, H.O. & N.E. Khalema (eds.). 2024. *Migration, and Identity Construction in Africa: Implications for Policy and Practice. Volume #17.*
- Patrick, H.O. & N.E. Khalema (eds.). 2024. *Migration, and Integration in Africa: Implications for Policy and Practice. Volume #18.*
- Smit, J.A., D. Gengan, E. Gandhi, C. Carson, R. Saleh, P. Gollanapalli, S. Sonty (eds.). 2025. *Mahatma Gandhi, Nelson Mandela & Martin Luther King Jr. Peace and Justice for All – Mobilizing for Nonviolent Change (Ahimsa): Keynote Papers & Youth Symposium Presentations. Volume #19.*
- Moletsane, R. & O. Mtapuri (eds.) 2025. *Critical Identity Studies in African Contexts. Volume #20.*
- Gopal, N.D. & G. Kruger & S. Maharaj 2025. *The BRICS Peace, Security & Economy Research Intersections. Volume #21.*
- Nkosi-Shokane, A.L., G.M. Naidoo, J.A. Smit & N.P. Ndimande-Hlongwa (eds.). 2025. *Postgraduate Supervision in Transformation Indaba: Contexts, Challenges, Opportunities and Praxes. Volume #22.*
- Smit, J.A., D. Gengan, E. Gandhi, C. Carson, R. Saleh, P. Gollanapalli, S. Sonty (eds.). [2026.] *Mahatma Gandhi, Nelson Mandela & Martin Luther King Jr. Peace and Justice for All – Mobilizing for Nonviolent Change (Ahimsa): Roundtable Papers Volume #23.*
- Mkhize, N. (ed). [2026.] *Aspects of African Scholarship in the Humanities and Social Sciences. Volume #24.*

*Postgraduate Supervision in
Transformation Indaba:
Contexts, Challenges,
Opportunities and Praxes*

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Preface

Initiated in 2021, the *Postgraduate Supervision in Transformation Indaba: Contexts, Challenges, Opportunities and Praxes*, involved more than eighty academics over six campuses from both the University of KwaZulu-Natal and the University of Zululand. Stretching over 4 years, from 14 May 2021 to 30 September 2025, we have had just more than eighty short papers delivered. The academics involved represent the KwaDlangezwa and Richards Bay campuses of the University of Zululand, and the Howard College, Westville, Edgewood, and Pietermaritzburg campuses of UKZN.

Over the years, we have had several Calls for Papers, to critically and constructively reflect and develop academic evidence-based presentations on different aspects of postgraduate supervision. Some of the indaba events focused on the supervision of the phases of the postgraduate research process – the supervision of the research proposal, in-depth topic, theory and method-related studies, data-generation, data analysis and interpretation, and thesis finalisation supervision. Others called for papers focused on the how of student and/ or supervisor experiences of postgraduate supervision, viz., at Honours, Masters and PhD levels. And yet others, to reflexively reflect on blended supervision during and following the COVID-19 pandemic, as well as supervision with the assistance of artificial intelligence tools.

So, for the final Call for Papers for this volume, and to provide an open space for all our presenters to submit their fully developed academic papers, the call was titled: *'Becoming, Being, and Excelling as a Postgraduate Supervisor in the Era of Digital Media and Artificial Intelligence'*.

Then, following our review process, and to capture the topicality of the papers, over the years, we thematised the volume, as *Postgraduate Supervision in Transformation Indaba: Contexts, Challenges, Opportunities and Praxes*.

Reflecting on the first part of our title, and from personal experience as evolving academics and supervisors, and against the background of previous indaba events, we reasoned that it is incumbent on the professoriate and our early and mid-career supervisors, to critically and innovatively engage the fact that the nature and practice of supervision is changing. It is transforming, from an add-on or marginal or even ancillary activity of the academic enterprise, to central, so that our very own-Africa-focused and -inspired and -generated research, and knowledge-led scholarship and teaching and learning, and community engagement, take centre stage. Indeed, postgraduate and especially Masters and PhD scholarships have become the prime drivers of the substance of contextually-relevant Humanities and Social Sciences

Preface

knowledge generation. If the Masters programmes provide the space for the topical and theory and conceptual and methodological mastery of transformative epistemics, the PhD projects spearhead the generation of new knowledge, evidence-based from new data and new information generated for conceptual and theory development, from, by, with and in the service of our communities. It is incumbent on us as supervisors to provide the requisite leadership to guide and steer the research process for and with each individual student, but also to accompany students through their postgraduate studies years.

Throughout our indaba events, one of the main areas of specialisation for supervisors that emerged was the assistance with the evidence-based study of the problematic phenomenon to be studied and the related topic formulation. Another was the ‘how’ of accompanying our students through the phases of the project to completion. Others were how students form social bonds, and perform as part of their peer groups, how the groups are accompanied by supervisors, in “cohorts”, and individually, and how supervisors collaborate, in projects where a co-supervisor or co-supervisors are involved.

Mooted as a collaborative project from our own academic staff in the province, the volume has been produced with data and scholarship from within our midst and for the benefit of our current and future postgraduate supervisors. Given the topics addressed as well as the reach and scope of the published result, we then thematised the chapters into groups under those that address aspects of contextuality that impact scholarly discourse, those that primarily address challenges or opportunities in supervision, and those that were submitted that dealt with practical aspects of supervision.

It is our sincere hope that the volume will be helpful to our supervisors in our province, but also useful to fellow early career, as well as mid- and senior career supervisors in South Africa, on our continent as well as internationally. The project is continuing, and we shall have more indaba events, with more universities becoming involved, with hopefully one or more published volumes.

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Volume a: <http://alternation.ukzn.ac.za/pages/volume-31-2024/Alternation-31-2a-2024-Ukuthuthukiswa-kwezilimi.aspx>

Volume b: <http://alternation.ukzn.ac.za/pages/volume-31-2024/Alternation-31-2b-2024-Ukuthuthukiswa-kwezilimi.aspx>

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postdoctoral fellows have completed their projects successfully under his mentorship. Prof Smit graduated with a BA, MTh (Stell) and DLitt in 2000 (UDW). smitj@ukzn.ac.za; <http://orcid.org/0000-0003-1792-5256>



Chapter 1: Editorial

Postgraduate Supervision in Transformation Indaba: Contexts, Challenges, Opportunities and Praxes

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On 14 and 21 May and 11 June 2021, respectively, Prof. J.A. Smit organised the first UKZN – UNIZULU online supervision indaba events for our province. Colleagues from the College of Humanities were invited to present short, 15-minute papers on doctoral supervision. This was during the height of the COVID-19 pandemic and was initiated to provide a space for academics to report and reflect on their experiences of doctoral supervision, generically, experientially, as well as in their use of online tools.

Later in the same year, Prof. A.L. Shokane (UNIZULU) as Project Initiator, with Prof. G.M. Naidoo (UNIZULU) Project Co-Ordinator, and Prof. J.A. Smit (UKZN) Workshop Facilitator, initiated the same format of short paper indaba online event at the University of Zululand. Over four years, this was organised as annual recurring capacity development events with a total of just more than eighty papers presented across our universities and campuses,

and the different indaba events. In our annual calls for papers, it was also expanded to the supervision of all levels of post-graduate research, Honours, Master's and PhD, including reflections and contributions from early, mid-, and senior career colleagues and supervisors. Over the last two years, and in response to our calls, we also incorporated paper presentations on the ethics and uses of artificial intelligence in supervision and research.

According to evaluations, assessments and reports, we have seen and experienced noticeable increases in the quality of our students' research projects, dissertations and theses, across the levels, at both UNIZULU and UKZN. The main impact was to learn from each other, and support each other, to capacitate and improve the quality of our students' work, and, longitudinally, impact the competencies and quality of our own postgraduate but especially PhD work with our students. Time to graduation has also started to shorten.

At both UNIZULU and UKZN, we also experienced both a heightened awareness among scholars and supervisors of the nature and importance, as well as the quality, processes and dynamics of postgraduate research.

So, it was against this background that we have invited all our presenters of these four years to prepare papers for peer-review and publications. We are happy that we have received a substantial number with this volume, the published result of our peer review processes.

As many presenters have indicated and also due to the interest in the project, also from our fellow universities in the province, the project will continue into 2026. We have new Indaba events being planned. Some will be internal to each university, with others across universities, and yet others, province-wide.

At UKZN, we wish to acknowledge the helpful support of Lebohang Sibisi, PA to the Deputy Vice-Chancellor, Prof. Nhlanhla Mkhize, and Nokuphiwa Angel Mbhele, PA to the Dean and Head of School, School of Arts, Prof. Nobuhle Ndimande-Hlongwa. We also gratefully acknowledge the financial support of the UKZN College of Humanities Teaching and Learning Dean, Prof. Ruth Hoskins, towards the printing of the publication.

For UNIZULU, we wish to firstly thank Prof. Gedala Mulliah Naidoo for his inspiring leadership of the project. For the administrative support, we wish to thank Zinhle Ntuli, for her excellent coordination from the research office, with additional support by Nkululeko S. Hlophe and Samukelisiwe H. Kubheka. We also thank Banikele Mashiyane, for her expertise in scheduling and programming of presenters, that greatly added to the success of the multi-year, and multi-campus indaba.

We are also thankful to the editors of the *Alternation African Scholarship Book Series* who have invited us to publish this volume as part of their annual peer-reviewed publications series.

Supervision in Transformation Indaba Contexts

In the chapter that opens this volume, **John Mhandu** and **Vivian Besem Ojong** examine the discourse of decoloniality in South African higher education and the importance of the indigenous knowledge system in the post-colonial epoch. The main aim of **‘Rethinking Africa’s Higher Education Systems: Pathways to Indigenous Knowledge Beyond Colonial Legacies’** is to provide a comprehensive analysis of the decolonial project in African higher education, examining its theoretical underpinnings, current challenges, and potential pathways forward. It draws on and engages the challenges of transformation from Eurocentric curricula to aspects of decolonised frameworks. Discourse analysis is used, drawing on recent scholarship, to explore the theoretical underpinnings of decolonisation. It explores the decolonised framework’s manifestations in academic institutions of higher education and the potential pathways for implementing decolonial practices. The study uses secondary data sources. A multifaceted approach was implemented, incorporating the salient theoretical arguments from Fanon, pedagogical research, and pertinent case studies of recent decolonial initiatives. Key findings from the literature highlight the persistent influence of colonial legacies in African institutions. Given this reality, the chapter advocates for the importance of integrating Indigenous Knowledge Systems (IKS), augmenting it with Fanon’s discourse and the Freirean Humanising Pedagogy in fostering decolonial praxis. The main argument herein is that a comprehensive approach to decolonisation requires not only curriculum transformations but also structural changes in research methodologies, the production of knowledge systems, and institutional framework. A seminal aspect of the study is that it proposes a **multilayered model** for the analysis of epistemic injustice in **African Higher Education**. At the centre of this model is the acknowledgement of the sociocultural, historical, and political dynamics in Africa that have profoundly shaped knowledge production in the present moment. The model shows how colonial legacies created and continue post-colonial structures in academic institutions, which

continue to dehumanise and marginalise African Knowledge systems. It disregards the Western models, which view the African knowledge system as unscientific, retrogressive, and inferior.

The chapter on **‘Prospects and Challenges of Supervising African Indigenous Knowledge Systems Research in Higher Education’**, by **Hassan O. Kaya** and **Mayashree Chinsamy**, is a predominantly qualitative study, and discusses comparative prospects and challenges experienced by AIKS supervisors and students from the partner institutions of the Centre of Excellence in Indigenous Knowledge Systems (CIKS). The Centre’s hub is at the University of KwaZulu-Natal, South Africa. The identified supervision challenges include: inadequate strategic programmes and platforms in higher education institutions to capacitate AIKS supervisors; a system that allows for students and IK holders to positively impact local communities and the academy; the lack of AIKS-based pedagogies and methodologies in working with marginal cultures, despite institutional vision and mission statements; and that AIKS supervisors have a limited holistic understanding of student socio-cultural needs and its impact on the supervision process. Even so, the study has also identified opportunities with regard to each of these challenges. The most significant opportunity is the place-based, holistic and multi- and transdisciplinary nature of AIKS. Due to its holistic and integrative dynamics, the Centre attracts a growing number of researchers and postgraduate students from within and outside South Africa. The research engagements and knowledge generated help to promote the significance of indigenous knowledge systems in the global knowledge economy.

Addressing these challenges and leveraging the related opportunities requires a fundamental shift in mindset, moving away from Eurocentric epistemologies and embracing a more inclusive and equitable approach to knowledge production. By fostering collaboration, promoting ethical research practices, and investing in capacity building, higher education can create an environment that supports and celebrates AIKS, ensuring that these valuable and inclusive knowledge systems are preserved, shared, and used to address the challenges facing local communities and the world at large. The opportunities include the fact that promoting AIKS research can contribute to transformative and decolonised curriculum development, environmental sustainability, and inclusive community development.

Postgraduate supervision is a complex and lengthy process that requires a blend of essential skills, deep expertise, strong mentorship and careful strategic planning. In their chapter, **‘Supervising Postgraduate Students in a**

Developing Country: Reflections on the Challenges’, Mpilo S. Mthembu and Dennis N. Ocholla examine the challenges faced by students, supervisors, and higher education institutions in the supervision of postgraduate students, particularly those pursuing master’s and doctoral degrees in developing countries like South Africa. The study is informed by personal reflections and a review of relevant literature guided by both the theory of Knowledge Creation and Bronfenbrenner’s Ecological Systems Theory. Timely completion and graduation for postgraduate degrees, especially at the master’s and doctoral levels, are often hindered by issues such as poor student quality, dependency, insufficient supervisory skills, high workload, the supervision approach employed, meeting the demands of the Council on Higher Education and the absence of clear policies and guidelines. Although the present chapter primarily focuses on developing countries, its implication extends beyond this context, as its findings have broad applicability in various aspects of research, teaching, and learning. Moreover, the insights derived from this chapter can contribute to a deeper understanding of postgraduate supervision trends and the overall progression of postgraduate education, not only in South Africa but also in other regions facing similar challenges.

South African higher education institutions have seen a steady rise in postgraduate enrolments as part of a broader effort toward inclusive transformation. Despite this growth, challenges related to power dynamics, gender inequality, and cultural exclusion continue to shape the postgraduate supervision experience. In her chapter, **‘A Reflection on Issues of Power, Gender and Culture in Postgraduate Supervision’, Avashni Reddy Moonasamy** reflects on these systemic issues using a qualitative thematic analysis of secondary data to explore how postgraduate students navigate the complexities of supervision. The findings highlight that, although higher education is now more accessible in post-apartheid South Africa, many students, particularly those from historically marginalised backgrounds, continue to face exclusionary practices that undermine their academic journeys. The study calls for inclusive supervision models, better institutional support systems, and policy reforms that acknowledge and address the realities of diverse postgraduate students. Additionally, the chapter recommends the implementation of ongoing professional development for supervisors and the creation of collaborative, culturally responsive supervision practices. These measures are essential to redress power imbalances and ensure meaningful transformation in the postgraduate landscape.

Angelo Nicolaides’ chapter, **‘Ethics and Related Research Conside-**

rations for Postgraduate Students in the Humanities and Social Sciences’, reconnoitres the issue of research ethics, which is critical since academic research involves a shared and methodical search for new knowledge creation using diverse scientific methods according to prescribed codes of conduct that must be adhered to. In undertaking any research, it is vital to act ethically at all times and observe the ‘Golden Rule’ which states that one ought to ‘Do unto others as you would have them do unto you’. While it is apparent that most people accept that there are indeed some conventional ethical norms, they may, of course, interpret and apply them in different ways based on their individual values and general life experiences. The standards of research must advance the aims of the research that is undertaken, including inter alia truth, knowledge, and the avoidance of malpractices. Research must thus always be undertaken and grounded on methodological norms, such as truthfulness, integrity, accuracy, transparency and accountability, and these are the prerequisites for ethical quality driven and reliable research. Research ethics is essential to apply to promote free, dependable, and responsible research. Research and ethics need to be intimately linked since good ethical research practices are non-negotiable. No research strategy for collecting personal data should be unsuitable for required ethical approval unless the possible benefits offset possible harms. Consequently, a researcher’s research design approach must be carefully considered. The researcher must effectively interpret, assess, and apply various research guidelines, make just decisions and act ethically when conducting their research, which should essentially be of value since society relies on research as a basis of reliable knowledge. Research ethics pursues justice and is at the heart of the humanities and social sciences. It concerns what and why one researches, and not only how research is conducted. Thus, every researcher is responsible for behaving ethically and responsibly.

Supervision in Transformation Indaba Challenges

‘Successful supervision of postgraduate research’ and students is a thorny issue in terms of research quality control, throughput, graduate quality and the employability of the qualifying graduates. Drawing on years of lived experience supervising master’s and doctoral candidates, **Dennis Ocholla’s ‘Successful Supervision of Postgraduate Research: Experiences, Challenges, and Opportunities’** explores strategies for successful supervision, as well as the

key stages, challenges, and opportunities. Discourse and literature review have been applied to support the narrative. Finally, he argues for greater investment in supervision through policy, capacity building, facilities, and awareness to enhance the quality of graduates, a pressing concern in South Africa. It is acknowledged that, while a lot is being done to achieve postgraduate quality, more investment into the recognised challenges is required to turn them into opportunities. This chapter is expected to improve postgraduate supervision, leading to higher student completion rates and graduates of higher quality who are more employable. The paper is likely to improve postgraduate supervision at the university level in South Africa, and perhaps elsewhere within a similar PG environment.

Universities worldwide are grappling with the rapid rise of generative artificial intelligence (GAI) and its implications for knowledge production, research ethics, and supervision practices. In South Africa, this debate is shaped by unique contextual factors such as the digital divide, institutional policy lag, and ongoing struggles for decolonisation in higher education. **‘University Research Supervisors’ Responses to Generative AI in the Context of Institutional Policy Lag**, by **Suriamurthee Moonsamy Maistry** and **Upasana Gitanjali Singh** reports on a qualitative study of thirty research supervisors at a research-led South African university, exploring their dispositions towards the use of AI in master’s and doctoral supervision. Drawing on the Unified Theory of Acceptance and Use of Technology (UTAUT), the findings highlight a continuum of perspectives, from enthusiastic adoption to cautious resistance. Supervisors recognised GAI’s potential to streamline proposal development, literature reviews, and data analysis, while raising concerns about authorship, accountability, and the risk of eroding critical thinking. Beyond plagiarism, supervisors and the literature emphasise broader ethical risks, including epistemic injustice, ownership of ideas, bias, and institutional responsibility. The study also situates South Africa within wider African and global debates, underscoring the need for contextually sensitive policies that balance innovation with academic integrity. By foregrounding African higher education realities and the ethical and institutional policy dimensions of AI use, this paper contributes to emerging scholarship on how research supervision is being reshaped by technological innovation in the Global South.

The quality of postgraduate education primarily depends on the effective supervision of postgraduate students. In today’s technological-driven landscape, the supervisory role has become more challenging due to different technological elements, such as Chip Chat, Artificial Intelligence, Machine

Learning (ML and other technological tools etc. This is in addition to the economic, social, and educational backgrounds of postgraduate students, where their attraction and retention are significantly important for educational institutions. **Toyin Cotties Adetiba's 'With or without Artificial Intelligence: the transformational Challenges of Postgraduate Supervision in South Africa's Higher Education'**, proposes that though AI is significantly important for academic research, the potential to erode the basis for thorough and careful research process, current and future developments in artificial intelligence (AI) systems vis-à-vis the space for human intervention can transform or revolutionize the research process either for better or worse. Thus, AI systems can productively serve as agents of transformation since they help to streamline and add tools to conducting our research. However, these technological elements can also become a potential enemy if allowed to replace the position of the supervisor and the student, thus weakening academics' ability to learn as theorists, or take academics off course through biased, inaccurate, and sometimes fake information regarding a research phenomenon, while putting students' postgraduate learning experience and supervision and other interests at risk. Whichever angle is considered, AI systems have come to stay. Using a qualitative method, this work argues that AI has the potential to undermine the very essence of academic inquiry owing to its potential to disrupt the established research methodologies, ethical paradigms and fundamental principles that have long guided scholarly work and are seen as indispensable for academic research. Concluding that while the use of AI tools can be entertained in research activity, it has the potential to undermine the credibility of the researcher and the supervisor since the product of such research would no longer be the research team's (the student and the supervisor) ideas but those of the AI, hence the need for caution while using AI.

Titled, **'Postgraduate Co-supervision Conundrums: Complementarity and Contradiction'**, this chapter by **Nyna Amin** and **Pryah Mahabeer** focuses on doctoral students' experiences of co-supervision. We utilise a triadic dialectical coherence framework to examine complementarity, contradictions and conundrums inherent in co-supervision arrangements. Our research shows that co-supervision between doctoral students and co-supervisors leads to both positive outcomes and obstacles. Different supervision approaches provide comprehensive academic and emotional support, while inconsistent supervision approaches lead to cognitive development and personal independence. Consistent challenges in coordination and power dynamics fuel intellectual development. The research shows that productive co-supervision depends on

organisational frameworks and human skills that manage rather than eliminate these tensions. The three-headed approach inspired by Janus offers insights for transforming supervision challenges into opportunities for growth in interdisciplinary research environments.

Supervision in Transformation Indaba Opportunities

The success of postgraduate supervision is affected by various factors. Many students enter the postgraduate education environment without sufficient knowledge of research methods. They may not be able to sail through the postgraduate phase without acquiring the required skills and adequate support to conduct postgraduate research. **Fairhope Gumede's 'A Critical Review of Different Supervision Approaches and Styles in the Social Sciences: Aspiring Supervisory Reflections on African Languages'** critically reviews the different approaches and styles that supervisors can adopt in African Languages postgraduate research. A qualitative approach located within the constructivist paradigm was adopted. Data for this study were collected through documents review. A search for effective postgraduate supervision literature was conducted to identify relevant research published from 2015 - 2024. The following search words were used on various search engines: effective supervision, constructive feedback, postgraduate research, and higher education. Reference lists of retrieved publications were also searched for additional sources. The theoretical framework of this study is Developmental Supervision Theory (DST) by Glickman (1980). Findings of this study suggest that supervisors need to provide the type of supervision which ensures that the students produce work of a high standard, thereby increasing throughput rates. It also revealed that group supervision (supervising a postgraduate cohort) and bringing on board researchers with different knowledge and skill sets, enhances the students' understanding.

Sadhana Manik's 'Essential Elements of Support for Effective Supervision and Well-being of First-generation Postgraduate Students: An Autoethnographic Perspective' is a contribution to the scholarship on supervisory support aimed at first-generation postgraduate African students' wellbeing in South African universities. Whilst there is a plethora of studies on supervisory models, styles and practices, there is a distinct paucity of research on personal and academic support provided when a postgraduate student

experiences a challenge/s that threaten progression and timeous completion of the postgraduate study. This paper attempts to fill the gap in support as epistemological access. The discussion is located within the supervisor – student relationship (SSR) and Manik offers an autoethnographic perspective on supervisory support as a thread of epistemological access underpinned by an intermediate to strong supervisory style, an ‘ethic of care’ (Tronto 2020) and the notion of a ‘psychological contract’ (Cureton 2016). She shares her attempts to support students’ mental well-being whilst encouraging postgraduate students towards academic success. Her personal reflections and reflexivity distil from the supervision experiences and students’ digital and written feedback, which establishes what comprises essential elements of support for their positive well-being. She presents a layered framework of her supervisory selves for effective supervision, including a triple vignette of support (care, concern and collaboration). She also reveals her commitment and contribution to ‘technical generativity’ (Kotre 1984) in developing the next generation of African academics. The conclusion provides theoretical insights on staff and students’ mental well-being, and the construct of ‘underprepared supervisors’ for first-generation postgraduate students in higher education.

In his ‘**Excellence in Supervision is a Function of Relevant Models**’, **Simon Bhukumuzi Khoza** interrogates and analyses supervision models. They are important since they help supervisors and students identify and understand the research needs and identities that drive their research actions. Supervision models are categorised into structured, unstructured, and semi-structured types. Although supervisors in South Africa have used supervision models to improve postgraduate throughput rates, they have not helped South Africa to produce one hundred doctoral graduates per one million people p.a. as yet. Producing one hundred doctoral graduates per one million people is the South African target for 2030 as stipulated in the *National Development Plan of 2030*. Higher education institutions (HEIs) are expected to produce at least five thousand doctoral graduates yearly. According to some reports, HEIs in South Africa produce fewer than two thousand doctoral graduates per year. This cause of concern motivated Khoza to explore and analyse supervision models used by postgraduate supervisors at a HEI in South Africa. This study used a pragmatic paradigm, action research, and a digital national identity framework to frame document analysis, reflective activities, observations, focus group discussions, and semi-structured interviews as the data collection methods. The study further used purposive sampling with convenience sampling to select twenty postgraduate supervisors from a HEI in South Africa. The

findings indicate that the dominance of the structured and unstructured models has generated tension between them that needs to be addressed by a semi-structured model, which is capable of creating a space for digital self-reflectivity before supervision processes take place. It is for this tension that this study explored and analysed supervision models used in South Africa. A semi-structured model concentrates on actions, beliefs behind the actions, and the consequences/ outcomes of supervision. This study, therefore, recommends the application of a semi-structured model and awareness of natural forces/ laws that promote natural actions, thus addressing personal and natural needs.

Postgraduate supervision represents both a significant responsibility and a rewarding opportunity for early-career academics. However, the transition into a supervisory role from just being a supervisee comes with common challenges such as inadequate preparedness due to the lack of formal supervision training, balancing multiple roles in academia, and issues of power dynamics in supervisory practices, which also lead to conflicts. In **‘Developing Transformative Postgraduate Supervision Practices for Early-Career Academics: A Journey of Growth, Guidance and Success’**, Zinhle Mthembu adopts a qualitative autoethnographic methodology to critically reflect on her personal journey from being a supervisee to becoming a supervisor for honours, master’s and PhD students. The analysis explores the multifaceted nature of the supervisor’s role, emphasising the importance of building trust and rapport, providing constructive feedback, cultivating critical thinking, and offering consistent motivation and support. The discussion highlights practical strategies such as the ‘sandwich’ feedback method, structured check-ins, and collaborative learning models for fostering a supportive and productive supervisory relationship. This underscores the significance of creating inclusive environments where students feel empowered to thrive, ultimately enhancing the quality of the postgraduate research experience and the development of the next generation of researchers. In addition to helping individual students, this chapter recommends a proactive approach that leads to more impactful and significant research outcomes, such as higher publication rates, better research quality, and happier students.

Supervision in Transformation Indaba Praxes

The role of postgraduate studies in the enterprise of a research university

cannot be underrated. Therefore, good supervision is expected to provide valuable support and mentorship to postgraduate students. Various scholars have argued that a supervisor must fully understand their role clearly in showcasing that their students complete their studies. However, others have posited that the lack of formal training of supervisors in fulfilling their roles delays the student to complete their studies. Consequently, it is necessary that supervisors keep reflecting on how they supervise their postgraduate students. Thus titled, **‘A Reflection on Postgraduate Supervision Practices: A Case of One University in KwaZulu-Natal Province’**, this chapter by **Zinhle Primrose Nkosi** and **Phephani Gumbi** reflects on and evaluates our postgraduate supervision practices, especially of mid-career academics and supervisors. Operating within the interpretivist paradigm, the study uses a qualitative research approach, and it adopts action research methods. Participants include two lecturers in the field of language education and are also researchers in this study. In addition, nine postgraduate students form part of the sample. Interviews, telephone conversations, observations, and document analysis are used as data generation methods. Data analysis is done using thematic analysis. Among findings, the study reveals that while our supervision strategies are helpful to the students, we need to improve on how we provide feedback, and turnaround time in providing feedback. The need for group supervision was identified as a tool to provide opportunities for sharing ideas. The study concludes that, as supervisors, our methods of supervision are helpful, even though we need to improve in certain areas. The study has implications for further research that will focus on experienced supervisors who are senior academics and their supervision styles.

Research supervisors are deemed experts in supervisory relationships; they hold intellectual authority over research topics and processes and implicit authority over supervisees, whom they must ensure will conduct research progressively and ethically. Supervisory roles thus contain embedded power, which, by institutional expectations, must be ethically enacted. But what happens when supervisees are Big Shots outside the supervisory relationship – meaning they hold high-ranking social positions? What happens when they exert power over supervisors, as they do over subordinates outside of the university environment? **Claire Gaillard’s ‘Supervising the Big Shots: A Research Supervisor’s Reflections on Supervising High-ranked Education-als’** critically deliberates on this probability by drawing from the author’s autoethnographic accounts on navigating supervision relationships with power-seeking Big Shots. A reflexive thematic analysis of these accounts uncovers

how elements inducing negative power relations between the supervisor and power-seeking Big Shots play out. Consequently, this chapter imparts how supervisory processes can be redressed to establish amicable supervisory relations between supervisors and Big Shot supervisees.

One of the standard procedures when conducting research is to use a questionnaire or interview schedule to obtain data in answering the research questions. In **‘Enhancing Questionnaire Quality in Research: Challenges, Principles, and the Acid Test’**, Sam Lubbe, Flip Schutte and Henry Mynhardt engage the concern that many students do not use a proper method or do not know how to compile a scientific and rigorous questionnaire that is coordinated and specifically linked to the research questions concerned. In fact, there appear to be cases where questionnaire design is merely dealt with loosely, in a rule-of-thumb kind of way with both student and supervisor arriving at the end of the empirical data generation phase of the research, where they have weak or limited data or data that do not sufficiently answer the main aspects of the key research questions as well as each of the sub-questions. This conundrum has severely impacted not only the quality of the thesis but also student and supervisor progress and, in some cases, even their mental health. To the contrary, it is incumbent on both student and supervisor to plan and think through each research instrument that employs forms of questioning for empirical data generation. They need to ensure that rich data is generated – data fit for providing a coherent and logical evidence-based argument that convincingly answers the research questions. In this chapter, the authors propose a matrix and procedure that could help to solve this challenge of improving on ‘questionnaire quality’, if appropriately followed.

The doctoral research proposal is far more than a descriptive blueprint; it must serve as the foundational demonstration of a student’s capacity for Critical Creativity, the integrated skill that elevates an idea into a compelling argument for novel scholarly contribution. In **‘Feasibility as the Integrating Component: Conceptualizing Critical Creativity for Novel Contributions in Doctoral Proposal Design’** Sam Lubbe, Henry Mynhardt and Flip Schutte, argues that this critical approach necessitates the seamless integration of two seemingly opposed mental functions: creative thinking, which generates expansive possibilities and new conceptual pathways; and critical thinking, which rigorously assesses those ideas by identifying methodological, logistical, and philosophical obstacles. To ground this innovative integration, the process starts with establishing a strong conceptual framework. Doctoral candidates must utilise rigorous analytical tools, like the Mission, and Core Com-

petence or MCC Strategic Decision Matrix, to systematically test their research ideas' research feasibility, and theoretical grounding. This demanding scrutiny is vital, ensuring the proposal is not merely an exercise in replication but lands decisively in the strategic 'Drives' quadrant – a clear indicator of genuine, forward-thinking innovation. By applying Critical Creativity throughout the document, the student can effectively address the deep philosophical underpinnings of their study and prove that the proposed contribution possesses true originality and scope, transforming the proposal into a powerful testament to their intellectual readiness and scholarly authority.

Adopting the conventions and forms of disciplinary academic writing is a core requirement for students to successfully engage in a university's community of practice. Yet, writing in an academic register for students whose mother tongue is not English can be challenging for a variety of reasons. Chief amongst these problems is first language transfer, the transition from undergraduate studies to postgraduate research and the genre and disciplinary requirements of writing a thesis. In **'Writing in an Academic Register'**, **Ayub Sheik's** study is grounded in Halliday's register theory, a key concept in systemic functional linguistics. He contends that language is functional and registers vary according to the contexts of communication. He then demonstrates how Halliday's notions of field, tenor and mode may be useful for students engaging in academic discourse. The use of appropriate registers in academic writing will advance student efforts in meeting the requirements of particular disciplinary norms, reduce bias, and meet the expectations of academic audiences. A formal, academic register will also impress upon the students, language choices such as hedging, boosters, the use of the passive voice, the avoidance of inappropriate phrasal verbs and colloquial patterning (amongst others) to maintain an objective and scholarly authorial identity. Finally, insight into writing in an academic register will enable students to effectively recruit the repertoire of resources, discursive structures, logic, augmentation, citation methods and other discourse features of academic writing.

In our final chapter, **'Remembering Forward: Memory Work Principles in Transformative Postgraduate Supervision'**, **Michael Anthony Samuel** argues for a fundamental reconceptualisation of post-graduate supervision in South African higher education through the theoretical framework of memory work. Reflecting on thirty years of post-apartheid doctoral education provision, the chapter demonstrates how transformative doctoral supervision requires moving beyond hierarchical, performativity-driven models toward collective, democratic approaches that value contestation and multiplicity. The

chapter is structured in two complementary sections. Section One explores memory work as a theoretical foundation, examining how productive memory-making operates through non-linear temporality (kairos rather than chronos) and relational experiences. It identifies five ‘pedagogo-pathologies’ (amnesia, fantasia, solitaria, inertia, and nostalgia) that undermine transformative potential by perpetuating apartheid legacies and conservative practices. Section Two applies these insights to postgraduate education, critiquing the quantitative obsession with doctoral outputs while presenting an alternative cohort model of supervision that embodies memory work principles.

The cohort model demonstrates how collective memory-making can disrupt traditional power relations through collaborative communities of practice involving multiple supervisors, students, and graduates. Various permutations of this model have evolved across disciplinary, institutional, and international contexts, addressing supervisory capacity challenges while promoting democratic engagement and creative ‘serendipitous accidents’.

The chapter concludes that transformative supervision requires conscious commitment to challenging comfortable patterns of the past while remaining open to uncertain futures. Memory work provides a theoretical scaffold for continued experimentation in curriculum design, though further empirical research is needed to evaluate long-term transformative impacts across different institutional and cultural contexts.

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Supervision in Transformation Indaba Contexts

Chapter 2: Rethinking Africa's Higher Education Systems: Pathways to Indigenous Knowledge Beyond Colonial Legacies

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Abstract

This article examines the discourse of decoloniality in South African higher education and the importance of the indigenous knowledge system in the post-colonial epoch. The main aim is to provide a comprehensive analysis of the decolonial project in African higher education, examining its theoretical underpinnings, current challenges, and potential pathways forward. It draws on the challenges of transformation from Eurocentric curricula to decolonised frameworks. Discourse analysis is used drawing on recent scholarship to explore the theoretical underpinnings of decolonisation. On this note, the article focuses on the decolonised framework's manifestations in academic institutions of higher education and the potential pathways for implementing decolonial practices. The article used secondary data sources. A multifaceted approach was implemented incorporating the salient theoretical arguments from Fanon, pedagogical research, and pertinent case studies of recent decolonial initiatives. Key findings from the literature highlight the persistent influence of colonial legacies in African institutions. Against this backdrop, the article advocates for the importance of integrating Indigenous Knowledge Systems (IKS), augmenting it with Fanon's discourse and the Freirean Humanising Pedagogy in fostering decolonial praxis. The main argument herein is that a comprehensive approach to decolonisation requires not only curriculum transformations but also structural changes in research methodologies, the production of knowledge

systems, and institutional framework. Against this backdrop, central to this article is the development of a multilayered model of epistemic injustice in African Higher Education. At the center of this model is acknowledging the sociocultural, historical, and political dynamics in Africa that have profoundly shaped knowledge production. The model shows how colonial legacies created post-colonial structures in academic institutions which continue to dehumanize and marginalize the African Knowledge system. It disregards the Western models who view the African knowledge system as unscientific, retrogressive, and inferior.

Keywords: Colonial legacies, Curriculum, Decolonisation, Freirean Humanising Pedagogy, Indigenous Knowledge Systems (IKS), Transformation

Introduction

In recent years, the call for decolonisation in higher education has gained momentum. This follows recent protests such as the #FeesMustFall, #RhodesMustFall, and many others. The post-Apartheid protests reflect the ongoing struggles with colonial legacies in Africa which shows that political independence failed to translate into full liberation of economic, academic, and cultural spaces. The postcolonial Eurocentric knowledge systems and pedagogical approaches in African universities have raised questions about the very foundations of higher education in the continent. The article argues that decoloniality is not just a conceptual framework but also a political act of decolonisation. There are contested epistemological and ontological assumptions that are challenged by decoloniality. These assumptions shape post-colonial knowledge production and dissemination. In the context of Africa, as shall be discussed in this article, decoloniality attempts to dismantle all forms of colonial power matrix that marginalize the Indigenous Knowledge System (IKS) in favour of Western epistemologies. Against this backdrop, this article seeks to provide a nuanced analysis of the decolonial project in African higher education by examining its theoretical underpinnings, current challenges, and potential pathways forward. We argue that true decolonisation of African universities requires a multifaceted approach that addresses not only curricular content but also pedagogical practices, institutional structures, and the broader socio-political context in which these institutions operate.

The decolonization discourse in African higher education institutions has raised alarm on epistemic injustices that are mainly exacerbated by the legacy of the colonial knowledge system. Against this background, we developed a multilayered model of epistemic injustice in African Higher Education. The model shows the historical roots of marginalization, a manifestation of epistemic injustice, power relations, knowledge marginalisation, and resistance and transformation. The analysis of this model builds on decolonial thinkers such as Frantz Fanon, Steve Biko, and Sabelo Ndlovu-Gatsheni. These thinkers propose the urgency of dismantling Western-centred dominance in African higher education institutions to foster social transformation. The model developed also explains the forms of epistemic injustice which it argues are reinforced through different institutional mechanisms viz curricular inflexibility, power in knowledge production and dissemination, Global North and South divide, and hierarchical knowledge system. The majority of African institutions of higher learning use neocolonial curricula imposed by Western institutions.

Aim

The article aims to provide an in-depth analysis of the decolonial project, its theoretical basis, and develop a multilayered model to address epistemic injustice in African higher education institutions.

Objectives

- i. To provide a comprehensive analysis of the decolonial project in African higher education, examining its theoretical underpinnings, current challenges, and potential pathways forward.
- ii. To develop a multilayered model of epistemic injustice in African Higher Education.

Methodology

The research methodology in this article integrates discourse analysis, secondary data analysis, and thematic analysis. The main aim is to investigate the role of epistemic injustice in the decolonization of higher education. There was an extensive review of current literature on epistemic injustice, African higher education, and different themes on decolonization. The dataset used in this

article consists of books, peer-reviewed journal articles, and material from higher education institutions. Following Maxwell (2013), secondary data sources allowed the study to synthesise existing theories, models, and empirical studies. The study used purposive sampling. Literature was selected using focusing on key themes of decolonization, epistemic injustice, and higher education. These key themes were discussed drawing on cultural, geographical, and discipline context-specific ensuring that key debates around decolonization and epistemic injustice are addressed. Following Sutrop, Parder, and Juurik (2020) ethical considerations were observed to ensure that academic integrity is achieved. The researchers ensured that all sources used were correctly cited. Given that the article is literature-based, there was no participant consent or fieldwork ethics concerns. However, it was important to ensure that the voices of the marginalised and colonised African countries were adequately represented.

The article used discourse analysis as its primary methodological approach. Discourse analysis was used drawing on recent scholarship to explore the theoretical underpinnings of decolonisation. On this note, the article focuses on the decolonised framework's manifestations in academic institutions of higher education and the potential pathways for implementing decolonial practices. The main aim of this article is to develop a multilayered model of epistemic injustice in African Higher Education using discourse analysis.

Following Gee (2014), discourse analysis was relevant because of its ability to analyse how power, knowledge, and identity are constructed and reconstructed in educational spaces related to epistemic injustices and decoloniality. This methodological tool assisted the study in exploring the challenges created by the dominant epistemologies in higher education and how they manifest through language in African higher education institutions.

Following Foucault (1972) and Said (1978), discourse analysis explains how education institutions and academic communities engage with the discourse of decoloniality and how this affects marginalized groups. Thus, a multifaceted approach was implemented incorporating the salient theoretical arguments from Fanon ([2004; 2008), Paulo Freire ([1952] 2004; [1961] 1986), Ndlovu-Ndlovu-Gatsheni (2013), Fricker (2007), pedagogical research, and pertinent case studies of recent decolonial initiatives and other decolonial thinkers.

Theoretical Contexts of Decolonisation

In the context of South Africa, Steve Biko shares the same sentiments and con-

tributes to the decolonial thought focusing more on psychological liberation as a tool to challenge the apartheid and colonial legacies in education (Smith 2019). Building on the works of Steve Biko and Paulo Freire, Smith (2019:113) maintains that '*the failure of decolonisation as a process to rid postcolonial contexts of ongoing complexities and structural dynamics of coloniality has led to the emergence of a vibrant movement for epistemic Decoloniality*'. This implies that by tolerating an education system that is still grounded in Western Eurocentric hegemony and without bringing into question the discourse of coloniality and knowledge paradigms, the education system remains an oppressive act.

Fanon's ideas on decolonisation can be viewed as a violent and oppositional force against deep-seated colonial power structures that have continued to resonate in contemporary decolonial movements. Fanon (2008) emphasised the psychological dimensions of colonialism which he believed has informed efforts to address the internalized oppression that persists in postcolonial societies, hence he calls for psychological liberation. Complete decolonisation is not only about political independence but it also entails the restructuring of social and economic relations.

Fanon used Gramsci's theory of counter-hegemony to critique the intellectuals' role in transformation in the postcolonial colonial contexts. Fanon (2004:145), describes two types of intellectuals, those who may 'fulfill', or 'betray' the needs of the decolonial revolution. Gramsci refers to these as organic and traditional intellectuals. Borrowing from Fanon and Gramsci, the article synthesizes two types of decolonial intellectuals. First are the intellectuals who are committed to decolonial humanism. Gramsci refers to these as Organic intellectuals. Secondly, its intellectuals facilitate colonialism's totality, rather than reformation and decoloniality. Gramsci refers to these as traditional intellectuals.

In addition, to the two types of intellectuals, Fanon's work on *Black Skin, White Masks (BSWM)* is an example of his decolonial work (Fanon 2008; Leonardo & Singh 2017). This work advocates for humanizing knowledge that can transcend Western thought. Fanon (2008:12) challenges the dehumanization caused by colonialism, arguing that 'running the risk of angering my black brothers, I shall say that a Black is not a man'. This quote meditates on the challenges and experience of inhumanity that was brought on by the West, colonialism as well as the experiences of otherness. His work serves as an intellectual tool that delves into the lived experience of blackness and works towards decolonial humanism (Maldonado-Torres 2005; 2008).

Intellectuals must not only facilitate a culturally relevant reform but instead play an important role in the decoloniality project and the struggle for freedom. This argument finds complementarity in Fanon (2004) who argues that decolonial intellectuals strive for the destruction of the colonial regime. Fanon (2004: 159) describes the ways through which organic intellectuals emerge from the masses.

During this phase a great many men and women who previously would never have thought of writing, now that they find themselves in exceptional circumstances, in prison, in the resistance or on the eve of their execution, feel the need to proclaim their nation, to portray their people and become the spokesperson of a new reality in action.

According to Dei (2010), Fanon's role as an intellectual is important in understanding the colonial interaction. Coloniality continues and it is tucked away effectively within the discourse of neoliberalism. As such the Fanonian concepts, like anti-blackness are a way to explain contemporary African race relations and education. Fanon theorizes the role of the intellectual as set against the background of the struggle against colonialism. Singh and Leonardo (2023) examine Fanon's intellectual work and his writing on the 'colonized intellectual' to describe the decolonial intellectual. The authors state that it is important to highlight the importance of Fanon's contributions to the intellectual for educators of color, who presently find themselves compromised by a hegemony characterized by neoliberal multiculturalism in education. In the African context of higher education, the theoretical foundations of decolonisation are grounded in the tradition of African philosophy and anti-colonial thought. Biko's Black Consciousness (BCM) and Frantz Fanon's work on anti-colonial violence. These have been influential in shaping the ideological framework for decolonisation.

Fanon (2004:6) argues that the World is like a 'Manichaeon world,' which means a world that is divided in two. This is a division between the coloniser and colonised and has created what Fanon (2004:14) calls the 'great lie of the colonial situation.' This is the belief that a natural white superiority justified the brutal acts of colonialism. To this effect, Fanon develops models that explain his decolonial intellectual's role in challenging the cultural violence of colonialism through a decolonial humanism rooted in new ways of seeing the world through the use of the Indigenous Knowledge System. As Maldonado-Torres (2005) puts it, the dominant psychological feature of the colonised is to

resist and withdraw any invitation from the conquerors. Decolonisation in this context thus necessitates a break away from Western standards, philosophy, and objectivity. In this respect, the intellectual's goal of humanization cannot be preoccupied with measurement and essential Western truths but intellectuals should bring about its end. This means that decolonisation is also a cultural and humanizing project in which epistemological foundations are guided by intellectuals toward decolonial futurity.

In addition to Fanon, the Freirean Pedagogy and the Indigenous Knowledge System (IKS) Paulo Freire offers a transformative framework for addressing the injustices created by the colonial system. Freire emphasises problem-posing education and is aligned with African communal learning traditions (Mbembe 2016). Shizha (2025) concurs and adds that Freire's pedagogy is compatible with IKS since they both reject the banking model of education, where students are passive recipients of knowledge. Thus, the Freirean pedagogy resonates with IKS and African epistemologies that value collective knowledge production. The Freirean pedagogy challenges the oppressive hierarchies by introducing a student-centered approach where students are also co-creators of knowledge. According to Mavhunga (2021), this is in line with a principle echoed in *Ubuntu* which emphasizes interconnectedness. As an illustration, in Zimbabwe, the government has introduced efforts to incorporate oral histories and traditional ecological knowledge into curricula (Shizha 2025). However, the implementation remains difficult due to lack of resources. In post-apartheid South Africa, post-#FeesMustFall initiatives similarly draw on Freire, challenging Western universalism (Walsh 2022).

However, integrating IKS into Africa's higher education system presents many challenges. For example, Heleta (2019) notes that there is resistance from academic elites who propagate the values of Western norms, while for Mavhunga (2021), there seems to be a lack of funding for research into Indigenous epistemologies. Despite these challenges, the article argues that the complementarity of Freirean and African decolonial thought has undoubtedly offered unique pathways to reclaim narratives sidelined by colonial education. This argument finds complementarity in Mbembe (2021), who advocates for the need to decolonise institutions of higher learning, including buildings and public spaces, and change those colonial names and iconography.

Epistemic Injustice in African Higher Education

The colonial legacies are still endured in African higher education systems in

the form of epistemic injustice. This is a concept developed by Fricker (2007). According to Fricker (2007), epistemic injustice refers to how individuals are wronged in their capacity as knowledge producers, and their voices are marginalized within institutional structures. In the context of African higher education, the structural and cultural dimensions of the life of academics are shaped by colonial legacies that perpetuate different forms of epistemic injustice. According to Ndlovu-Gatsheni (2013), epistemic injustices are a barrier to the full participation of academics in knowledge production. Mignolo (2009) adds that the colonial and historical frameworks continue to influence the postcolonial academic environment, and this shows an intersection of colonialism, racism, and educational inequalities.

To put it in plain words, the article argues that the existence of epistemic injustice in African universities affects academics and students in a dehumanizing way. It continues to be reproduced through the use of Western structures that privileged colonial powers and the implementation of educational policies, practices, and structures that privilege Western knowledge systems. This does not put African epistemologies and IKS at the center of knowledge production in African institutions of higher education. African institutions of higher learning still experience the dominance of European languages (such as English, French, and Portuguese) as the mode of teaching and continue to rely on academic models of teaching and research (Bhambra 2014 Banda 2019; Chakawa 2020). In so doing, they have failed to foster an academic environment that promotes the diversity of knowledge systems. In addition, these structural barriers negatively affect the development of a decolonized system resulting in an academic environment that is not inclusive. The article therefore suggests that the decolonization of African higher education, must involve an (re)examination of these colonial injustices and create spaces where IKS and African knowledge traditions are integrated into the academic mainstream. There is a need to create a new academic mainstream which includes changing teaching pedagogies, revisiting the curricula, and creating an academic environment that promotes diversity of the knowledge system and the integration of IKS (Bhambra 2014; Chakawa 2020).

Multilayered Model of Epistemic Injustice in African Higher Education

Diagram 1 below shows a multilayered model of epistemic injustice in African Higher Education. The model developed offers a multi-layered framework that

challenges the dominance of Western epistemologies. At the center of this model is acknowledging the sociocultural, historical, and political dynamics in Africa that have profoundly shaped knowledge production.

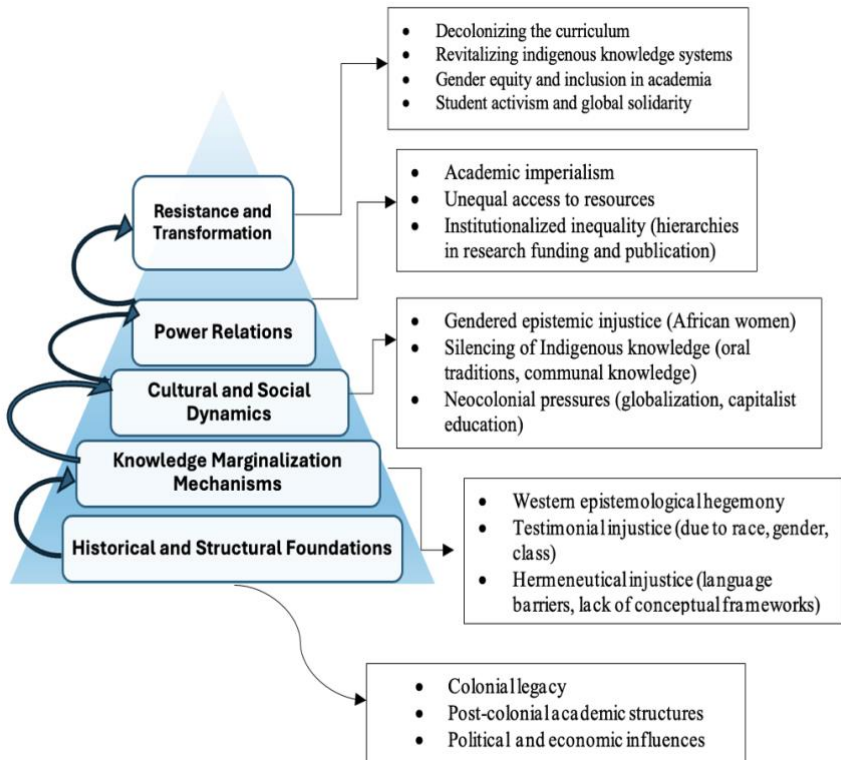


Diagram1: Multilayered Model of Epistemic Injustice in African Higher Education. Source: Authors

The multilayered model of epistemic injustice in African Higher Education shows the historical and structural legacies of colonialism, which exacerbates the dominance of colonial knowledge systems and structures in a way that marginalizes African epistemologies. Western epistemological hegemony and hermeneutical injustice are examined to highlight all forms of knowledge marginalization, emphasizing more on the power dynamics within global academic hierarchies. In this model, we also discuss the intersectionality of

gender and ethnicity in so far as the process of academic exclusion is concerned. To this effect, the model advocates for a decolonization of the curricula where intellectual autonomy is prioritized. Lastly, the model advocates for resistance through a radical transformation of the African higher education system in a way that challenges neo-colonial influences and the inclusion of indigenous knowledge systems and gender equity. In short, the 5 key points highlighted in the multilayered model of epistemic injustice in African Higher Education are historical and structural foundations, knowledge marginalization mechanisms, cultural and social dynamics, power relations, and resistance and transformation. These are clearly explained below.

1. Historical and Structural Foundations

In African higher education systems, the historical and structural foundations of epistemic injustice are rooted in the colonial past. This is where the colonisers imposed their knowledge systems and blueprint educational models onto African higher education institutions. This has left most African higher education institutions to continue using the colonial administration system instead of the needs of the local societies. Ndlovu-Gatsheni (2013) maintains that the colonial education system was designed to dehumanize African academics and to teach students to be submissive and to understand that their knowledge systems were inferior. This continues to dominate African universities where the curricula emphasize Western-centric models of knowledge, neglecting indigenous scientific practices and practices. This historical background has created epistemic injustice in African higher education systems. Academics in Africa continue to be affected by the structural inequities created by the colonisers hence their knowledge production is overshadowed by Western intellectual hegemony. The main argument herein is that the historical and structural foundations of colonialism shape African higher education in a way that favors the Western-centric models creating a system that marginalizes African academics and their intellectual contributions.

2. Knowledge Marginalization Mechanisms

Western-centric models of knowledge use different mechanisms to marginalize African academics in higher education. The institutional practices and cultural biases suppress African epistemologies. In this model, we argue that Western epistemological hegemony is used to demonstrate that the Global North

knowledge is considered universal, while African knowledge is unscientific. This process, which we refer to as epistemic marginalization, is shown by the absence of representation of African scholars in global academic publishing. African-centered perspectives are also absent in mainstream journals, showing how the indigenous knowledge system is neglected in academic curricula. African scholars who use indigenous knowledge systems, African traditions, and African-centred ideologies to challenge the dominant hegemony often face skepticism. In some instances, their ideas and scholarly contributions face outright dismissal. In addition, the focus on Western theories, methodologies, and epistemologies that are observed in many African university curricula appears to marginalize African scholars. This exacerbates testimonial injustice through which African scholars working with local languages, knowledge, and perspectives, are seen as less credible compared to their Western counterparts. Hermeneutical injustice is also another mechanism of knowledge marginalization. This often occurs when African scholars lack the tools or frameworks necessary to interpret their own experiences. It is important to note that African epistemologies are rooted in their oral traditions, storytelling, and indigenous knowledge, and therefore are not easily translatable into text-based models of knowledge that are Western-based. As the multilayered model of epistemic injustice in African Higher Education would argue, this creates a hermeneutical gap because African scholars are unable to express their experiences in the dominant Western-centred academic discourse. Using foreign epistemic frameworks does not adequately explain the lived realities, of African scholars, further perpetuating epistemic injustice.

3. *Cultural and Social Dynamics*

The intersectionality of cultural and social dynamics is important in providing a classical understanding of epistemic injustice in African higher education, especially when focussing on gender and ethnicity. As an illustration, African women academics face a different form of epistemic injustice than their male counterparts. The kind of epistemic injustice they face is both gendered and racial. According to Smith (2021), women's academic contributions are often dismissed, in some instances undermined, rather than being integrated into mainstream academic spaces. This is also supported by Mignolo (2011), who notes that gendered epistemic injustice is worsened by societal expectations which are double standards. The role of women in some African cultures and public intellectual spheres is often seen as secondary to those of men. To this

effect, African women have a higher probability of facing institutional barriers that limit their opportunities for professional advancement and publication. Women's voices are undermined in this regard which is a dynamic reinforcement of a patriarchal academic environment where men's voices are superior and dominant to women's voices are marginalized. This is not only in African academic spaces but also within the global academic space.

In Africa, ethnicity and class are crucial factors that aid in understanding the marginalization of knowledge within higher education. Academics from disadvantaged backgrounds, low-income communities, and rural African institutions often face systemic biases that prevent their ideas from being taken seriously. This situation has created a rural-urban intellectual divide, where urban elite scholars frequently dominate academia while the majority of the population remains disconnected from higher education. In certain African countries, ethnic politics has led to minority groups struggling to have their voices heard against dominant groups. This has resulted in intersectional injustices, where specific African academics and students are marginalized because of their backgrounds and ethnicities. They are oppressed not merely due to colonial injustices but also because of their sociopolitical backgrounds. The effect of these epistemic injustices is the exclusion of their voices from mainstream academic spaces, which reinforces the social inequalities.

4. Power Relations in Knowledge Production

The fourth issue at the centre of the **multilayered model** of epistemic injustice in African Higher Education is power relations in knowledge production. This is key to the epistemic injustice in African higher education. Scholars and academics from the Global North are always positioned in a hegemonic authority which results in the marginalisation of African based knowledge system. As we have argued in knowledge marginalization mechanisms, Global North academics are always put in positions of authority while Global South intellectuals are recipients of knowledge. This is similar to the Freireian banking concept of education and it often results in the marginalization of African knowledge. The model refers to this as academic imperialism, where Global North institutions dominate the global academia space controlling all aspects including research, curriculum development, and funding. Global North institutions and academics impose external standards on African institutions. This imposition makes it difficult for African institutions to reinforce their African knowledge. The Global North-South power imbalances are also

worsened by unequal access to resources. In Africa, there are significant resource constraints which include inadequate funding opportunities, lack of access to research facilities and international journal databases. These resource constraints limit African scholars to fully participate in the global knowledge economy. This continues to reinforce the epistemic injustice faced by African academia.

5. *Resistance and Transformation*

In light of the challenges, structural issues, and colonial and epistemic injustices discussed above, resistance and transformation in African institutions of higher education is inevitable. The multilayered model of epistemic injustice in African Higher Education advocates for both transformation and decolonization of the curriculum. The model advocates for a radical transformation of intellectual traditions and existing Western frameworks. The outcome of this transformation should be able to genuinely recognize African epistemologies and Indigenous Knowledge Systems (IKS) as central to the academic enterprise. As an illustration, oral traditions should remain an important tool of African knowledge systems and should form part of academic knowledge production. Following Mignolo (2011) and Ndlovu-Gatsheni (2013), incorporating African epistemologies and Indigenous Knowledge Systems (IKS) should provide pathways that challenge the epistemic hierarchy that was imposed by Western knowledge at the center of academia.

Women should not be silenced in academia. The model calls for gender equity as an important to in the transformation. African institutions of higher education must challenge the epistemic silencing of African women in academia where their intellectual contributions to the development of knowledge are not recognised. As women break through the glass ceiling and glass wall, they should become more visible and their valuable work should be integrated into broader academic discourses. In this way, African institutions of higher education can dismantle the gendered epistemic injustice that exists within their institutions (Mignolo 2011). The challenges created by neocolonial influences should not go unnoticed, especially regarding the increasing commercialization and privatization of education in Africa. Africa is facing serious market-driven models of education that are only interested in profit maximization at the expense of the intellectual and cultural needs of African academics and scholars. The emphasis should be placed on intellectual independence and self-sufficiency instead of Western ways of knowledge production.

Addressing Knowledge Bias Using the Multilayered Model

Diagram 1 above illustrates a multilayered model of epistemic injustice in African Higher Education. This framework challenges the dominance of Western epistemologies. At the core of this model is the recognition of the sociocultural, historical, and political dynamics in Africa that have profoundly shaped knowledge production. The model highlights how colonial legacies established post-colonial structures in academic institutions, which continue to dehumanize and marginalize the African knowledge system. It portrays the African knowledge system as unscientific, retrogressive, and inferior. Drawing from Fricker (2007), the process of marginalization manifests through testimonial injustices. According to Mignolo (2003; 2011), this refers to African academics being denied credibility due to biases surrounding their blackness, race, and class. The concept of blackness, as applied in this model, is derived from Biko's works, which conceptualize it as encompassing all Africans previously disadvantaged by the colonial regime, including Africans, Indians, and colored people. As argued by Fricker (2007), the process of marginalization also appears as hermeneutical injustice, where African academics have limited tools, as they primarily depend on Western knowledge systems. They are excluded from knowledge production, curricula, and scholarly discourse, fostering epistemic oppression.

A key element of the model of epistemic injustice in African higher education is its recognition of power dynamics in knowledge production. Neocolonial economics and political relations have worsened the Global North - South divides, shaping the creation of knowledge that is used in the African academic environment (Ndlovu-Gatsheni 2016). To this effect, the model of epistemic injustice in African higher education shows the overrepresentation of Western literature in African academic institutions. This argument is supported by Mkandawire (2014) who opines that the research publications and curriculum design in Africa reinforce Western ideologies. This is why neoliberal pressures on African universities appear to prioritize market-driven agendas that favor Western models of education. The autonomy of African scholars in this regard is compromised by the need to adhere to international funding and research standards that are determined and set by Western institutions. Also, the pursuit of rankings, research grants, and international publications has created a dependence syndrome of African scholars on global academic trends. This limits ways in which they engage with pertinent issues relevant to the African context. In this model, we, therefore, argue that the

reliance on Western models perpetuates epistemic injustice by maintaining intellectual coloniality. The process of knowledge creation is grounded in colonial paradigms.

Finally, the model of epistemic injustice in African higher education suggests ways for resistance and transformation. To decolonise curricula, African universities must incorporate indigenous knowledge systems and opinions that reflect local socio-political and cultural realities. According to Smith (2021), there is a need to challenge deep-seated epistemic hierarchies that have historically thwarted African knowledge. This model seeks to ensure that African scholars are empowered and able to reclaim their intellectual autonomy and become centres for knowledge production without perpetuating historical injustices. It is important to advocate for a transformative approach that is more radical in so far as the inclusion of African perspectives is concerned.

Conclusion

The article has examined the discourse of decoloniality in South African higher education and the importance of the indigenous knowledge system in the post-colonial epoch. It argues that the existence of epistemic injustice in African universities affects academics and students in a dehumanizing way. These injustices continue to be reproduced through the use of Western structures that privileged colonial powers and the implementation of educational policies, practices, and structures that privilege Western knowledge systems. Central to this article is the development of a multilayered model of epistemic injustice in African Higher Education. At the center of this model is acknowledging the sociocultural, historical, and political dynamics in Africa that have profoundly shaped knowledge production. The model developed offers a multi-layered framework that challenges the dominance of Western epistemologies. The model acknowledges the sociocultural, historical, and political dynamics in Africa that have profoundly shaped knowledge production. The five (5) key points highlighted in the multilayered model of epistemic injustice in African Higher Education are historical and structural foundations, knowledge marginalization mechanisms, cultural and social dynamics, power relations, and resistance and transformation. Finally, the model of epistemic injustice in African higher education suggests ways for resistance and transformation. To decolonise curricula, African universities must incorporate indigenous knowledge systems and opinions that reflect local socio-political and cultural realities. Another key element of the model of epistemic injustice in African

higher education is its recognition of power dynamics in knowledge production. Neocolonial economics and political relations have worsened the Global North-South divides, shaping the creation of knowledge that is used in the African academic environment. The model calls for gender equity as an important vehicle for transformation. African institutions of higher education must challenge the epistemic silencing of African women in academia where their intellectual contributions to the development of knowledge are not recognised.

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Data availability

There is no restriction on the data available. We confirm that there are no web links for publicly available datasets.

Disclaimer

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Chapter 3: Prospects and Challenges of Supervising African Indigenous Knowledge Systems Research in Higher Education: Experiences from the DSTI - NRF Centre of Excellence in Indigenous Knowledge Systems (CIKS) UKZN

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Abstract

The paper was based on a predominantly qualitative study to discuss comparative prospects and challenges experienced by AIKS supervisors and students from the partner institutions of the Centre of Excellence in Indigenous Knowledge Systems (CIKS), with its hub at the University of KwaZulu-Natal, South Africa. The identified supervision challenges included: inadequate strategic programmes and platforms in higher education institutions to capacitate AIKS supervisors, students and IK holders to positively impact on local communities and the academy; lack of AIKS-based pedagogies and methodologies in working with marginal cultures, despite institutional vision and mission statements; and AIKS supervisors had a limited holistic understanding of student socio-cultural needs and its impact on the supervision process. However, the following opportunities were also identified: the place-based, holistic and multi-transdisciplinary nature of AIKS attracted a growing number of researchers and postgraduates from within and outside South Africa, helping to promote the significance of indigenous knowledge systems in the global knowledge economy.

Addressing these challenges and leveraging the opportunities requires

a fundamental shift in mindset, moving away from Eurocentric epistemologies and embracing a more inclusive and equitable approach to knowledge production. By fostering collaboration, promoting ethical research practices, and investing in capacity building, higher education can create an environment that supports and celebrates AIKS, ensuring that these valuable and inclusive knowledge systems are preserved, shared, and used to address the challenges facing local communities and the world at large. The opportunities include the fact that promoting AIKS research can contribute to transformative and decolonized curriculum development, environmental sustainability, and inclusive community development.

Keywords: AIKS Higher Degree by Research Students, Indigenous, Professional Development in AIKS Supervision, Quality IKS Supervision, Indigenous Knowledge, IKS, Centre of Excellence in Indigenous Knowledge Systems, University of KwaZulu-Natal, South Africa

Introduction

There is an increasing realisation on the importance of African Indigenous Knowledge Systems (AIKS) in social transformation and decolonisation processes of Africa. However, AIKS development is limited by lack of a critical mass of AIKS human capital, especially at postgraduate levels, conversant with its worldviews, ways of knowing, value systems and research methodologies, as a knowledge domain (Anderson *et al.* 2022). The historical marginalisation of indigenous cultures, knowledge systems, and languages has led to dominance of western knowledge including research methodologies and lack of this AIKS human capital. A large proportion of African people, especially women and children in marginalized communities, still depend on AIKS for sustainable livelihood.

Although it is argued that there is no standard model of postgraduate supervision to be applied in and across all disciplines and postgraduate research situations, because it is an evolving process that meets the needs of different students, programmes and administrative structures, the inclusive, multi-trans-disciplinary, cultural-ecological specific nature of AIKS requires different research approaches including research supervision (Anderson *et al.* 2021). This is emphasised by Gwagwa *et al.* (2022), who indicate that with AIKS higher degree by research, increasing each year, it is timely that higher education insti-

tutions and academics, within and outside Africa involved in AIKS development, become aware of best practice when supporting AIKS research students to succeed in the higher education environment. This is based on the view that supervision is arguably one of the most important support mechanisms provided to higher degree research students. Therefore, with increasing AIKS higher degrees by research, it is timely and crucial that higher education institutions, and research supervisors become aware of best practices when supporting AIKS research students. Thus, successful preparation of AIKS research students is contingent on quality student-supervisor relationships. However, challenges can arise when this supervision relationship is overlapped with cultural differences, whereby the supervisor has limited knowledge of the student's cultural background including the research cultural community (Anderson *et al.* 2022). The study argues that although the importance of higher degree research supervision is well studied and understood, including an increasing body of literature examining cross-cultural and intercultural supervision, much less research, however, focuses on supervision experiences with AIKS postgraduate students and their non-indigenous supervisors (Okolo *et al.* 2022).

The paper is based on a research study which explored the supervision prospects and challenges experienced by AIKS postgraduate students and their supervisors in the partner institutions of the DSTI-NRF Centre of Excellence in Indigenous Knowledge Systems (CIKS), with its hub at the University of KwaZulu-Natal, South Africa. The CIKS, is a partnership of five higher education institutions in South Africa, i.e., University of KwaZulu-Natal, North-West University, University of South Africa, University of Venda and University of Limpopo. It is also the hub of the African Institute in Indigenous Knowledge Systems (AIIKS). This is an international consortium of more than 30 higher education and autonomous research institutions, from within and outside Africa. It is inclusive of all linguistic regions of the continent, i.e., Anglophone, Kiswahiliphone, Lusophone, Hispanophone, Francophone and Arab Africa.

Research Questions

This was an exploratory study on the challenges and opportunities of supervising AIKS research in higher education institutions. Hence, it was imperative to develop research questions which were multifaceted for both the supervisors and students. They acted as a preliminary framework, guiding the researchers in identifying relevant data sources, selecting appropriate methodologies, and interpreting findings within a coherent context (Barroga *et al.*

2022). The supervisors' research questions were as follows:

- (i) What are the benefits and challenges of supervising AIKS research? This question explored the overall experience of supervising research on AIKS, focusing on both the positive outcomes and the difficulties faced;
- (ii) How do supervisors' prior experiences influence their approach to supervising AIKS research? This question examined how supervisors' own research backgrounds and previous experiences with AIKS might impact their supervision style and expectations;
- (iii) What knowledge and skills are crucial for effectively supervising AIKS research? This was meant to identify the specific expertise needed to navigate the complexities of AIKS research, such as understanding local knowledge systems, working with community members, and engaging in culturally sensitive research practices;
- (iv) How do supervisors navigate the diverse and sometimes conflicting perspectives within AIKS research? It investigated how supervisors handle potential disagreements or differing interpretations of AIKS knowledge among students and community members;
- (v) What are the ethical considerations and challenges associated with research on AIKS? This investigated into the practicalities of ensuring that AIKS research was conducted responsibly and ethically, respecting cultural practices, obtaining informed consent, and avoiding exploitation.

The specific research questions for AIKS students included the following:

- (i) How do students perceive the value of researching AIKS? This explored students' motivation for choosing research on AIKS, their understanding of the importance of this knowledge system, and their personal connection to these themes;
- (ii) What are the challenges students face in conducting research on AIKS? This investigated the specific difficulties students encounter, such as access to information, navigating cultural contexts, and engaging with community members;

(iii) How do students experience the supervision process when researching AIKS? It delved into students' perspectives on their relationship with their supervisors, the support they received, and the impact of their supervisor's approach on their research;

(iv) What are the impacts of researching AIKS on students' learning and development? This explores how engaging with AIKS research might expand students' understanding of different knowledge systems, enhance their research skills, and cultivate a deeper appreciation for cultural diversity;

(v) How can AIKS research contribute to broader societal development? It investigated how the findings of research on AIKS can be used to address challenges, promote sustainable development, and build more inclusive and equitable societies.

Specific Objectives

The research had specific objectives for both AIKS supervisors and students. The supervisors' specific objectives were:

(i) To demonstrate cultural sensitivity and respect for AIKS, acknowledging its historical significance and the diverse perspectives it encompasses. This included understanding the role of oral traditions, storytelling, and other cultural practices in transmitting and preserving AIKS;

(ii) To guide students in conducting ethical research that respects the rights and interests of AIKS custodians and practitioners. This involved ensuring informed consent, protecting confidential information, and avoiding any exploitation or misrepresentation of AIKS;

(iii) To engage with communities that hold, and are custodians of AIKS. This involves collaboration with community leaders, elders, and knowledge keepers, fostering a sense of ownership and ensuring that research benefits the community;

(iv) To facilitate AIKS preservation by encouraging students to document, analyse, and disseminate findings in a way that protects the integrity and

authenticity of this knowledge system;

(v) To promote inclusive supervision by striving to create an inclusive environment that fosters diversity and equity in research. This involves recognizing and valuing the unique experiences and perspectives of all students, especially those from diverse backgrounds or with marginalized identities;

(vi) To empower students to take ownership of their research by allowing them to explore their interests, engage in critical thinking, and develop their own research questions.

The students' specific objectives were:

(i) To develop a comprehensive understanding of AIKS, including its history, cultural context, and practical applications. This involved engaging with primary sources, conducting fieldwork, and collaborating with community members;

(ii) To critically analyse AIKS, examining its strengths, weaknesses, and potential applications in a variety of contexts;

(iii) To demonstrate respect for the communities they work with, recognizing the value of their knowledge and traditions;

(iv) To be responsible for adhering to ethical research guidelines, ensuring informed consent, protecting confidentiality, and avoiding any exploitation or misrepresentation of AIKS;

(v) To contribute to the preservation of AIKS by documenting their findings, sharing their knowledge with others, and engaging in advocacy for the protection of this knowledge system;

(vi) To explore the interdisciplinary nature of AIKS, integrating it with other fields of study such as western science, technology, engineering, and mathematics.

Conceptual and Theoretical Framework

The supervision of AIKS represents a complex and multifaceted endeavour, requiring a robust conceptual and theoretical framework to effectively navigate its prospects and challenges. The exploration of AIKS necessitates a departure from conventional supervisory approaches, demanding instead a culturally sensitive and contextually relevant methodology (Ignace *et al.* 2023). This involves acknowledging the unique epistemologies, values, and practices embedded within AIKS, while also addressing the power dynamics and potential biases that may arise during the supervision process. It is imperative to create an inclusive system that recognizes the value of diverse knowledge systems and avoids repeating past mistakes of prioritizing one system over another. The development of such a framework necessitates a synthesis of various theoretical perspectives, including postcolonial theory, critical pedagogy, and indigenous research methodologies, to ensure a holistic and ethical approach to supervision.

The conceptual framework is grounded in the principles of cultural humility, emphasizing the importance of self-reflection and ongoing learning about diverse cultural perspectives. It takes into consideration that AIKS supervisors must acknowledge their own biases and assumptions, and actively seek to understand the cultural context of their students and the AIKS they are studying. Culturally sensitive supervision involves adapting supervisory practices to meet the specific needs of students from diverse cultural backgrounds. This may include providing mentorship and support to students navigating the academic system, addressing issues of cultural identity and belonging, and creating a safe and inclusive learning environment. The supervisory relationship should be built on trust, respect, and mutual understanding, fostering open communication and creating space for students to share their experiences and perspectives (Battiste, 2021).

The paper argues that drawing from postcolonial theory, the supervisory framework must actively deconstruct the historical power imbalances that have marginalized African indigenous knowledge systems (AIKS). This involves recognizing and challenging the dominance of Western epistemologies and promoting the validation and recognition of indigenous ways of knowing. Critical pedagogy emphasizes the importance of dialogue, collaboration, and reflexivity in the learning process, encouraging AIKS supervisors to engage in reciprocal knowledge exchange with students, fostering an environment where indigenous knowledge is valued and respected.

Indigenous research methodologies, such as participatory action research and storytelling, offer valuable tools for engaging with local communities and knowledge holders in a culturally appropriate and ethical manner. These approaches prioritize community involvement, respect for cultural protocols, and the co-creation of knowledge.

In the context of the AIKS theoretical framework (Buthelezi *et al.* 2024) emphasizes the significance of taking the following aspects into consideration:

- (i) Drawing on the *Ubuntu* philosophy of ‘human-ness’, which emphasizes interconnectedness, empathy, and collective responsibility, can provide a framework for understanding the dynamics of supervision within an AIKS context;
- (ii) Use of critical theory to analyse the power dynamics and social structures that influence research supervision, particularly in the context of AIKS;
- (iii) Postcolonial theory can shed light on the legacy of colonialism and its impact on the development of AIKS and its integration into research;
- (iv) Systems thinking can help to understand the interconnectedness of various factors, including the supervisor-student relationship, institutional policies, and the broader social context, in shaping the supervision of AIKS research;
- (v) Understanding the epistemological foundations of AIKS can inform the development of research methodologies and approaches that are culturally appropriate and meaningful.

Methodological Framework

The methodological framework for a qualitative study examining the prospects and challenges of supervising African Indigenous Knowledge Systems research within higher education necessitated a multi-faceted approach, deeply rooted in interpretive paradigms that acknowledge the nuanced complexities of knowledge production and validation in diverse cultural contexts. This framework needs to be constructed on a foundation of cultural sensitivity, ensuring that the

research process respects and values the epistemological standpoints inherent within AIKS. The selection of appropriate qualitative methods became paramount, demanding a careful consideration of techniques that can effectively capture the richness, depth, and context-specificity of the experiences and perspectives of both supervisors and students involved in this unique research landscape (Mantula *et al.* 2024). A critical aspect of this framework lies in its ability to address the power dynamics inherent in the relationship between supervisors, who may be trained primarily in Western academic and research traditions, and students who are engaging with AIKS that often operate outside these conventional frameworks.

Data collection methods included in-depth interviews, focus group discussions, and document analysis (Ameli *et al.* 2024). In-depth interviews offered a rich source of information, providing detailed accounts of individual experiences, perspectives, and reflections on the supervisory process. Focus group discussions facilitated a collective exploration of shared challenges and opportunities, fostering a sense of community among participants and promoting a deeper understanding of the social dynamics at play. The analysis of relevant documents, such as institutional policies, research guidelines, and student theses, provided valuable contextual information and revealed institutional approaches to supporting AIKS research. The framework also incorporated strategies for ensuring the validity and reliability of the research findings, such as triangulation, member checking, and peer review.

The methodological approach involved a purposive sampling procedure. The goal was to identify individuals with deep expertise in AIKS research supervision in higher education (Iwara 2025). In depth and semi-structured interviews with a combination of open and closed questions were administered to a total number of 35 AIKS postgraduates (Masters and Doctoral) and 26 AIKS supervisors located in the CIKS partner institutions. The inclusion criteria included: (a) research participants being AIKS postgraduate students, registered at the CIKS partner institutions and AIKS supervisors at these institutions.

A thematic data analysis approach was used, employing both inductive and deductive coding techniques. Inductive coding allowed themes to emerge organically from the data, while deductive coding used pre-existing theoretical frameworks to guide the analysis. The themes were cross-examined to identify commonalities, differences, and patterns in the experiences of supervisors and students, leading to a deeper understanding of the prospects and challenges of supervising AIKS research in higher education. The goal of the research was to provide insights and recommendations that could inform policy and practice in

higher education institutions, ultimately fostering a more supportive and equitable environment for Indigenous Knowledge Systems research. Acknowledging the calls for collaborative approaches, researchers must push themselves towards deeper community engagement (Buthelezi *et al.* 2024).

The methodological framework incorporated strategies for disseminating the research findings to a wide audience, including academic publications, policy reports, and community presentations (Yeseraw *et al.* 2023). It was also critical to create culturally safe processes to ensure that the findings were accessible and relevant to the communities that participated in the research, promoting knowledge sharing and contributing to the empowerment of local communities. By prioritizing ethical considerations, promoting collaboration and participation, and employing rigorous data collection and analysis methods, the framework generated meaningful and impactful research that contributes to the advancement of AIKS s in higher education. The methodological framework was rooted in participatory and decolonizing principles. This framework aimed to address historical power imbalances in research, ensuring that local community voices are centred and respected throughout the research process. This involves not only giving indigenous people a voice, but also actively listening and working with them to ensure that research is conducted in a way that is culturally sensitive and respectful.

Results and Discussion

1. Socio-Economic Demographic Characteristics of Research Participants

The majority of the AIKS postgraduate research students (Masters and Doctoral) in all the CIKS partner institutions were between 25 and 45 years old, whereas the supervisors were between 40 and 70 years old including the IK holders and practitioners as co-supervisors. The majority (65%) of the AIKS participant postgraduate research students were male. More than 50% of them were married with family and other responsibilities. Sixty-two (62%) of them researched on issues related to the cultural communities where the CIKS partner institutions were located, i.e. North-West, Limpopo, Gauteng and KwaZulu-Natal Provinces.

Eighty-five percent (85%) of the AIIKS supervisors had doctoral degrees and were married. However, the majority (66%) of these supervisors were not local to the cultural community where the CIKS institution was

located. More than 60% indicated that they had more than 5 years' experience of postgraduate supervision and were still supervising AIKS research students.

2. Qualities of a Good AIKS Supervisor

Both the research participant supervisors and their students in the CIKS partner institutions had the view that in the intercultural supervision on AIKS research, good supervisors need to demonstrate the following qualities:

- provide research students with opportunities to experiment with their research and academic independence as part of their intellectual development;
- involve students in a supportive research cultural environment by providing opportunities to work with IK holders and practitioners in their field of inquiry;
- handle each student according to the students' own learning style and cultural background;
- support and encourage international IKS research students researching in a new cultural environment to develop agency;
- schedule regular formal and informal contact/consultation sessions with students;
- value cultural and other differences as a dynamism for the student's growth; and
- deal with personal challenges of the student whenever they arise.

It was reported that keeping AIKS research students motivated, being on track in their work and supporting them physically, mentally and academically were important considerations for a good supervisor.

The survey revealed that despite growth in the AIKS postgraduate students' enrolments in recent years, their completion rates in some of the CIKS partner institutions remained low. For instance, in 2021 less than 20% of AIKS research students completed their degree programmes on time, due to a diversity of challenges, especially financial and other responsibilities.

However, both students and supervisors revealed that quality supervision played a vital role in supporting AIKS postgraduate students' success in completing their research degree programmes. The importance of supervisor's understanding and flexibility was emphasised in dealing with students' range of issues including family and community responsibilities, work

duties and research related issues. One research participant supervisor commented that good supervisors are those who try to understand students' personal and professional situations and help them resolve any issue arising in the supervision and research process. Moreover, to understand students holistically, it is critical for supervisors to listen to their needs and concerns.

Studies in other institutions within Africa dealing with AIKS research students also suggest that supervisors tend to experience the challenge of insufficient indigenous research methodologies and/or cultural knowledge (Pohn *et al.* 2025). It is based on this challenge that the paper emphasises that AIKS supervisors need to understand and appreciate the significance of mastering AIKS research methodologies in AIKS postgraduate supervision. They need to acknowledge that ways of seeing the world are social constructions and that their perceptions are influential in how they guide and shape their students' research. This is based on the observation that it is common for indigenous postgraduate students to be aware of their non-indigenous supervisors' inability to contextualize or comprehend issues from an AIK perspective.

Reflecting on her own experience in AIKS supervision, one AIKS supervisor reported that AIKS postgraduate students from local cultural communities with indigenous knowledge-focused topics would benefit greatly from having a supervisor with appropriate cultural knowledge or co-supervising with an IK holder and practitioner in his/her specific field of inquiry.

The survey revealed that more than 70% of the participating research students were being supervised by non-indigenous supervisors and approximately 50% of them had the view that AIKS supervisors should undertake mandatory cultural awareness training. One research student indicated that problems could emerge between students and the supervisor in the supervision process due to cultural, including linguistic differences.

The paper has the view that a supervisor's expertise in the discipline, in terms of knowledge and experience is an important factor in the supervision process. For instance, Thapelo, one research student participant at the University of Limpopo, emphasized the significance of expertise in the respective AIKS field on the part of the supervisor:

Good supervisors know their fields, have scholarship in the field in terms of teaching, research and publication including research methodological expertise that can support the research student, have good ethical understanding and demonstrate it, know about indigenous

people's socio-cultural protocols, understand the importance of working with IK holders as co-supervisors, especially to make up the expertise that non-indigenous supervisors don't have.

Throughout the responses in the data concerning quality supervision, 'knowledge', 'expertise' and 'experience', particularly for AIKS issues and topics, were repeated multiple times. The following comment from Dr Molefe, an AIKS Supervisor at the University of Limpopo, demonstrated the importance of supervisors' experience:

The ability to guide and facilitate the student's research is crucial. This involves setting reasonable deadlines and goals for students. Being able to discuss issues of content (theory, design, results) and processes in postgraduate research work in a meaningful and helpful way.

Another participant Supervisor, Dr. Mosweu, University of South Africa (UNISA), had the view that experienced AIKS supervisors, as a new area of inquiry, should be able to anticipate external examiners' critiques so that they can prepare their research students well for the submission of their dissertations and other research papers. These comments describe the characters of experienced supervisors and provide a clear message from participants in the CIKS supervisory team that inexperienced IKS supervisors lacking the relevant knowledge and expertise should not be placed in the team. A research Supervisor, Dr Mafunisa, at the North-West University, added:

Some IKS supervisors have very limited understanding of critical indigenous research methodologies. They are assigned or accept IKS students without the necessary IKS supervision knowledge and skills, but simply because they are indigenous themselves, or just having a passion for IKS issues.

Displaying the same concern, another research participant, Mme Lerato, added:

Although it varies greatly, many IKS supervisors do not have knowledge of IKS or training in IKS supervision, nor do they seek it out. This is serious in that, both non-indigenous and some indigenous supervisors believe they can supervise IKS students without knowledge of indigenous knowledge methodologies, even when knowing that they have no

experience in this field. There are also people who have not grown up among indigenous communities or who may have only just learned about their cultural identity, but who think they know about indigenous knowledge, research, its research methodologies and indigenous experiences. Their knowledge is like that of non-indigenous people.

On the issue of quality feedback and advice, Saliya (2021) states that in supervising postgraduate students, supervisors' feedback is extremely critical. This is elaborated by Dr. Luvhimbi, one of the research participant supervisors at University of Venda, who indicated that enabling IKS students to succeed in completing their research project requires them to provide critical and timely feedback. The majority (78%) of the research participant supervisors had the view that constant feedback on students' written work was one of the good practices in supervision. Dr Baboloki, an AIKS supervisor at North-West University, had the following experience:

I provide instant feedback on written material and meet with the students to discuss the feedback to help them with practical matters as they arise, help with writing by commenting on material. Focusing on positives and how work can be improved to give students confidence in their abilities is another feedback strategy I use.

This view implies that supervisors' constant interaction with the students including feedback, enables the supervisor and the student, to assess the merit of the research and how it will be received by examiners. In support, Yarlagadda *et al.* (2018) indicate that frequent and timely feedback to written work is essential. This is based on the consideration that students expect a much advice from their supervisors by providing good quality guidance in the research journey including publication of research results. This highlights the issue of communication and cooperation between supervisors and research students.

3. Communication and Cooperation Between Supervisors and AIKS Research Students in AIKS Supervision

One important aspect investigated in the AIKS supervision in the CIKS partner institutions was that of communication and cooperation between supervisors and research students. Battiste *et al.* (2021) note that communication is key in building a good rapport in the supervisor–student relationship and in effective

cooperation with students who are working on an AIKS research projects as a team. The study reported that communication and cooperation with research students, especially on frequency of consultations, were good supervision practices. In most instances, supervisors who participated in the survey reported that they were very responsive to their research students' concerns, either via emails or phone calls and that their students could contact them any time to share up to-date information with them. In discussing cooperation with students, a participant supervisor, Dr. Ndlovu, University of KwaZulu-Natal, said:

I work with the student to 'draw' the various part of the research project on a diagram and make connections. I find that visualising a research project, or at least the research methodology section, helps to clarify the students' mind and makes the writing flow.

Dr Ngidi, an AIKS supervisor from The University of KwaZulu-Natal, expressed the importance of giving students time to work on their project and being flexible when more time was required. She reported:

I work with my students in setting out the timelines to monthly and weekly goals and what an average day might look like. This is important in the beginning when they are getting started and might be unsure. We work together in this process, and include things like time for fitness, picking up kids, and birthday parties etc. This helps minimise stress at peak times in the supervision and research process.

Generally, the survey found that communication and cooperation between AIKS supervisors and their research students as a team, is a good supervision practice to be followed by all supervisors, across disciplines. Buthelezi *et al.* (2024) states that communication between supervisor and his/her research student is key in successful quality supervision, i.e., creating a communication process which allows an open and respectful exchange of views on both sides. Ms Kau, an AIKS research student participant, at North-West University, said:

In my view it is important to have an open rapport between supervisor and the student. The supervisor should be interested and concerned about students' well-being, studies and future through constant communication.

The significance of clear communication in the supervision process, was emphasized by both supervisors and students. Clear communication and cooperation allow supervisors to have genuine rapport with their students in the supervision and research process. This provides the pleasure and motivation among research students in learning new knowledge in AIKS as a field of inquiry and become experts in their specific disciplines of competence. It also encourages the students to complete their research projects on time. Furthermore, it was expressed that supervisors' support should not cease at students' completion; rather, the supervisors should focus on supporting students during the entire process and mentoring for a future career, beyond the degree programme. One research student participant, Mr. Molefe, at the University of Limpopo, said:

A supportive supervisor would assist his/her students by creating and maintaining good quality work, by ensuring that the student has every opportunity to succeed, including the removal of any institutional barriers.

All the participant supervisors emphasised the significance of building strong supervisory teams to guide AIKS research students to completion as a crucial factor contributing to quality supervision. This involved guidance that empowers the research students to engage with the body of knowledge to generate new understanding and perspectives in the AIKS field of enquiry. Dr Tambulani, an AIKS supervisor at the University of Venda, indicated that once the supervision does not meet students' needs and problems arise, it is his/her responsibility to make the students aware of their right to request a reconfiguration of their supervisory team, by including IK holders and practitioners in the discipline of competence as co-supervisors.

Being flexible and empathetic to the students' personal, financial, work-related and study-related situations were also reported as good supervision practices. Dr Sifiwe, an AIKS supervisor at the University of Limpopo, said:

I always check with my students, especially those with families, about care responsibilities, partner commitments etc. This helps me get a picture on helping in their lives, setting up goals that are realistic, planning and making it feel more possible.

The study reported that including IK holders and practitioners from the local communities into the AIKS supervisory team is a great support culturally and linguistically, for research students. Other support strategies reported by both research students and supervisors included supervisors' guidance, research training programmes, feedback, and cohort support. This could also be done by regular checking in with the students to keep them on track and engage in their research projects to identify any blockages. However, participant supervisors did not approve the practice of micro-managing their students' project progress but encouraged students' independence and skill development. Supervisors were also able to direct students to appropriate support services or courses. For instance, Dr. Moloi, a research participant supervisor at UNISA, stated:

I try to check in with my students regularly, to let them know that I am there to support them. I know that some students retreat and hide when they are feeling overwhelmed or not doing well. I try to take that stigma away for them, so they know that they can talk to me if they are struggling.

Dr Rambuda, an AIKS supervisor at the University of Venda, reported that regular communication involving showing compassion and care when needed including looking out for opportunities for student development are important qualities of a good supervisor.

According to the research participant supervisors with more than 10 years of experience in AIKS postgraduate supervision and who were currently supervising AIKS research students, creating cohort support for AIKS students is a good supervision practice. It enables them to go through the supervision process together, supporting each other and provide opportunities to learn and share experiences. The survey found that discussing supervisors' expectations with AIKS students at the beginning of their research journey, is an effective strategy of promoting the values of cooperation. Stating clear expectations were also cited to be a good practice in supporting the students.

4. Engaging with Intercultural Differences in AIKS Supervision

Battiste (2021) states that supervisors need to be aware of the diversity of factors which influence a research student's personal and cultural identity, influencing his/her lifestyle and behaviour. This implies that one of the core responsibilities

of the AIKS supervisor is communicating and interacting across and between layers of cultural differences among their students, depending on the number and diversity of students being supervised. For instance, at North-West University and University of KwaZulu-Natal as CIKS partner institutions, supervisors had to deal with postgraduate students, at both master's and doctoral levels from South Africa, Cameroon, Kenya, Zimbabwe, Uganda, Nigeria, Ghana, Tanzania, Lesotho, DRC.

The survey reported that due to the growing cultural diversity of the AIKS postgraduate students in the CIKS and AIIKS partner institutions, the differences were complicated by nationality, ethnicity, religion, disciplinary, and institutional differences of both supervisors and students. Both experienced moments of transculturation, i.e., creating new knowledge by blending one's own cultural ways of thinking with those of other cultures including uncertainty or uneasiness in working in a different environment or culture. Dr Nchimbi, an AIKS supervisor, at UNISA, expressed the view that in developing an inter-cultural competence in AIKS supervision, one needs opportunities to reflect in an intentional way on the real shifts to one's multiple identities and learn how to cope in a multicultural environment as a student and supervisor of specific cultural-based studies.

Another participant supervisor, Dr Mogotsi, at North-West University, reported that in engaging with cultural differences one engages with diversity of forms of communication in the supervision process. According to him, this involved the following communication imperatives: awareness that one's assumptions may be wrong; asking before explaining oneself, asking open questions to elicit explanations, creating a safe, open space for exploration, and being curious.

However, the study has the view that cultural responsibility and fear of cultural alienation are an important factor that can potentially impact on the success of AIKS students. Therefore, supervisors of these students need to be aware of the role of cultural imperatives, be prepared to respond and provide appropriate direction when required. This implies that cultural knowledge and awareness training should be introduced to AIKS supervisors as it can be critical for students to achieve their best results.

Regarding the roles and responsibilities of IKS supervisors, existing literature highlights various responsibilities. They only play the role of a research guide for the IKS research student in their research journey, but also have ethical responsibilities, including awareness of indigenous world views, ways of knowing, value systems and research methodologies including indige-

nous communities. Furthermore, they have a responsibility to strengthen their supervisory skills by participating in supervision development and cultural awareness training workshops to best support IKS research students. Anderson *et al.* (2021) emphasises that cultural awareness training should be mandatory to higher education staff and supervisors of IKS students in order ‘to create a better environment where students feel culturally safe and understood’.

The study argues that guidance is one of the responsibilities of AIKS supervisors to ensure that AIKS students succeed. This is based on the view that AIKS is a new and marginalised area of inquiry, hence supervisors in this field have a strong responsibility to give AIKS research guidance and feedback on critical thinking, written communication, and relevant discipline knowledge. However, AIKS students in the CIKS partner institutions also expected their supervisors to provide more guidance on developing academic independence, collaboration skills and to maintain motivation. This was based on the view that postgraduate students in any discipline of inquiry who are actively supported and guided to increase their academic independence and collaboration skills tend to develop positive effects on their motivation and productivity as well as assist them to develop independent ideas and teamwork skills.

The study also took into consideration that supervising AIKS students further requires supervisors to maintain an ethical responsibility to ensure that the research students undertake is beneficial to the local community and the knowledge they produce reflects accurately local indigenous worldview. Furthermore, supervising IKS students who use indigenous research methodologies in the local community context demands that supervisors have cultural knowledge and cultural awareness of these complex issues.

5. Role of Supervisor in Building Awareness on African Indigenous Knowledge Systems-based Ethics and Intellectual Property Rights

One of the participating AIKS supervisors at the University of Venda, had the view that the role of an AIKS supervisor is to create critical knowledge and awareness on international ethics instruments such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). These aspects are still lacking in many institutions of higher education involved in AIKS research with local communities. There is a tendency to focus more on institutional ethics approval processes and practices than to the inherent rights of local communi-

ties as IK holders and practitioners. This is supported by Ignace *et al.* (2023) who emphasize the importance of ensuring that free, prior, and informed consent is obtained in all stages of the research process. This promotes a research and supervision process that is both excellent and relevant to the study community.

For instance, the survey revealed that not many participant AIKS research students (< 40%) and participant research supervisors (<50%) were aware of recent international developments in the long-standing issue on Intellectual Property (IP), Traditional Knowledge and Genetic Resources. They were not aware that in May 2024, the World Intellectual Property Organisation (WIPO) member states adopted the first WIPO Treaty to address the interface between intellectual property, genetic resources, and traditional knowledge. It was also the first WIPO Treaty to include provisions specifically for Indigenous Peoples as well as local communities. This took into consideration of the fact that the recognition and application of these emerging IPR policy imperatives in AIKS research outputs are significance for advancing social, epistemic, and environmental justice through the systematisation of AIKS in the global knowledge economy (WIPO 2024).

6. *Building Supervisor - Student Relationship in AIKS Supervision*

Both the participant AIKS supervisors and their students, reported on the importance of building a good supervisor-student relationship based on the following considerations:

- (i) the need for the supervisor to treat students as role models for undergraduate students, rather than patronising them. These research students in the new field of IKS often bring significant work and life experience, and some are multilingual. This enhances a culture of excellence in IKS research, built on relevance in communication. Thus, the need as a supervisor to articulate your expectations clearly and encourage transparency and accountability in the supervision process. For instance, providing them with opportunities to articulate and share action points from meetings, etc.
- (ii) create social and cultural interactions with students including sharing meals, occasionally one-on-one, and communally.

- (iii) encourage students to participate in departmental social, cultural, academic events, and forums etc.
- (iv) building cohort support groups for IKS research students, being aware of intra- and interdepartmental opportunities for this.
- (v) taking time in each consultation with the students to catch up with what is happening in their lives and how it impacts on their progress. This involves listening, so that they are aware that, even when assisting them outside of the scope of your supervisory mandate, you see them as whole people with lives that are important.

Both supervisors and students reported that the relationship between the two in the supervision and research process is particularly crucial and one that needed to be based on mutual trust and respect. The participant research students indicated that at times the power difference in the relationship between students and supervisors negatively impacted their progress and expressed that often they were reluctant to challenge these differences due to the acknowledgement that supervisors were frequently placed under institutional pressure to perform. The study reported that quality supervision from a student perspective was a balance between academic and emotional support. One research student participant highlighted the importance of disciplinary expertise on the part of the supervisor in addition to these qualities. Other students put emphasis on the importance of continuity of supervision, because changes in supervision lead to problems and delays.

7. Managing Conflict Situations in AIKS Supervision

The paper extends the view that humans send and receive complex messages in everyday conversations, most of which happens without much conscious attention. Hence developing communication strategies in the AIKS supervision process between supervisor and student is key to avoiding conflict situations, though it is a complex skill which not everyone is equally good at but can be developed. Participant AIKS supervisors cited the importance of building a common understanding of scientific content, methods, and procedures between supervisor and research student at the onset including establishing an agreement on purpose, goals and action plan in the supervision process to avoid divergent expectations. This includes monitoring progress, to assist with necessary

interventions. One supervisor indicated the significance of activating student's own critical thinking, to deepen learning and problem solving which motivates students in the supervision and research process.

Dr Mavhungu, an AIKS supervisor at the University of Venda, had the view that managing AIKS student and supervisor diversity, should be taken as a process whereby supervisors of a marginalised knowledge domain such as AIKS promote democratic and epistemic justice, by taking care of AIKS students' rights and exposing them to critical learning.

8. Significance of Professional Development in AIKS Supervision

The previous sections discussed the importance of quality supervision in enabling AIKS research students to succeed. This section looks at the significance of AIKS supervisors' disciplinary expertise, experience and knowledge as a vital factor in quality supervision. It demonstrates the critical position of involving IK holders and practitioners in the AIKS supervision and research process, as part of the IK supervisory team.

Both the research participant supervisors and students had the view that the inclusion of IK holders and practitioners increases the relevance of the research outcome. Moreover, besides supporting the AIKS research students culturally, a supervisor's disciplinary expertise in the specific AIKS field helped research students in a specific discipline of competence such as traditional medicine, indigenous agricultural systems and practices, etc. to become effective researchers in the academy.

Participant AIKS students emphasised that good, professional and encouraging AIKS supervisors required cultural knowledge, awareness, including AIKS research methodologies to best support them. There is also a need for supervisors to have a close working relationship with IK holders and practitioners in the cultural community and understand students' social, cultural, spiritual, including financial background for a holistic supervision.

The research participant supervisors' and students' views agreed with those of Saliya (2021) who indicates that supervisors of cultural-based research studies have an ethical responsibility to ensure that the research undertaken is relevant and beneficial to the studied cultural community and that the knowledge produced reflects accurately local worldviews. This view was based on the observation that non-indigenous and indigenous supervisors with limited cultural knowledge of the researched cultural communities, tend to experience

challenges in their research and supervision processes. Hence, professional development in cultural knowledge, awareness, safety, and AIKS research methodologies, through training and close cooperation with IK holders and practitioners, is a great support for AIKS professional development in their supervisory role and responsibilities.

Challenges and Prospects of AIKS Supervision

The survey was interested in establishing the challenges facing AIKS, in the context of supervisory expertise and alignment with students' expectations. The research revealed that the participant supervisors were concerned whether given the holistic, cultural-based, and multi-transdisciplinary nature of IKS, that the advice they gave to their research students was the best advice; and whether students feel that the supervisors were approachable to discuss concerns with them. Three main challenges raised by IKS supervisors in the CIKS partner institutions can be categorised as institutional, postgraduate students themselves and their supervisors:

(i) Institutional challenges refer to the marginalisation of IKS as a discipline of inquiry due to the history of colonisation and apartheid which led to the dominance of western science. Some supervisors articulated that the academy is not prepared and accommodative to IKS research with limited financial support. Currently most of the financial support is from the National Research Foundation.

(ii) Challenges related to IKS students, their mental health and well-being is also a concern. Gumbo (2021) indicates that pursuing a research degree is a long journey with many ups and downs and unexpected events that might occur. One research participant said:

It's a long journey and many unintended challenges happen in students' lives causing them to struggle to continue even though they are genuinely interested in their studies.

(iii) Some participant supervisors expressed their concerns about the mental health of students and the stress of failure they face, especially those with the burden of family and community responsibilities. Supervisors felt the challenge of keeping students on track, motivated and interested in their

work. Research study is a long learning journey and from time-to-time students have difficulties related to competing demands on their time which affects progress and can adversely influence work quality.

Positive supervisor practices, which include providing guidance throughout candidature milestones, being a mentor, and a champion for the students with open communication and constructive feedback are key.

Further, supervisory teams were most effective when they operated as a unified voice for students rather than one that was fractured and diverse. Such diversity was found to have negative impacts for students. On the issue of female and male IKS research students it was reported that female postgraduate students were more dissatisfied than their male counterparts in terms of both course experience and supervision. Important factors related to this included lack of access to supervisory support due to the high workloads of supervisors.

Articulating the concern when students get behind, Ms Lerato, an AIKS Masters student at North-West University, said:

Sometimes some non-local supervisors tend to be afraid to ask what is going on when a student gets behind. They need to keep students on track as part of their supervision responsibility and find out what support is required to keep students on track.

This implies that not being part of a student's local community means that there are many things that supervisors are unaware of and must work hard to earn trust. However, in contrast to the concerns of supervisors who try to keep students on track, it was found that some students did not put their whole effort into their research project. They treated their work as something they could do when they have more time and then rush through it at the end.

Both AIKS supervisors and students who participated in the study, identified the following challenges in AIKS supervision:

(i) African higher education institutions are mandated to develop the AIKS critical mass of human capital for social transformation and decolonisation processes, they lack strategic programmes and platforms to adequately capacitate AIKS supervisors, students and IK holders, to positively impact on local communities and the academy.

(ii) Academia including AIKS research supervision, lack indigenous peda-

gogies and methodologies in working with marginal cultures, despite institutional vision and mission statements.

(iii) AIKS supervisors lack holistic understanding of student socio-cultural needs and its impact on supervision process.

However, the study reported that professional competence in AIKS supervision had the following prospects:

(i) Like other knowledge systems, AIKS has its own worldviews (ontologies), ways of knowing (epistemologies), value systems (axiologies) and research methodologies, which need to be promoted through research, teaching and community engagements.

(ii) The place-based, holistic and multi-transdisciplinary nature of AIKS attracts an increasing number of national and international researchers and postgraduates, helping to advance democracy and epistemic justice in the global knowledge economy.

(iii) Co-knowledge production between supervisors, students, IK holders and practitioners in the AIKS field, promotes the development of culturally appropriate pedagogies and research protocols.

(iv) Provides CIKS supervisors with a multi-transdisciplinary support network, to collectively navigate AIKS supervision challenges.

(v) As part of AIKS professional development, shared experiences help supervisors, students and IK holders in building trusting and respectful relationships in the research and supervision process. The research participant supervisors reported that working together as a collective, assisted in orientation, resource access and mitigating cross-cultural differences. Dr Luvhimbi, an AIKS research supervisor, at University of Venda, had the following to say:

Having a clear understanding of the socio-cultural protocols of the diversity of cultures, where the research process is conducted by AIKS students is very important. The supervisor needs to be flexible and should be able to work with the research students appropriately

in their situation. Cross-cultural understanding, understanding about ‘cultural safety’ is critical for students’ progress. Supervisors need professionally, to understand how their behaviour and cultural limitations can impact on students’ progress.

The participants strongly believed that ‘cultural awareness’ training is always important in the IKS academy. It would be a great resource for non-local supervisors and/or supervisors without indigenous or local cultural background to learn more ‘knowledge on culture and perceptions to mentor IKS students effectively’. Besides, it is critical for AIKS students to be culturally safe, hence working together with IK holders as co-supervisors was seen as important to support students. Students should also attend these AIKS empowerment platforms to understand the socio-cultural protocols for conducting IKS research.

Discussion

Supervising research on AIKS within higher education presents a unique set of prospects and challenges, demanding a nuanced understanding of the socio-epistemological landscape (Yeseraw *et al.* 2023). The integration of AIKS into higher education curricula and research endeavours holds immense potential for decolonizing knowledge production and fostering contextually relevant solutions to local challenges. This paradigm shift necessitates a critical examination of existing supervisory practices, pedagogical approaches, and institutional frameworks to ensure that they are aligned with the principles of inclusivity, reciprocity, and respect for indigenous knowledge holders. Embracing this approach is essential for enabling the adoption of emerging digital technologies including AI that support decentralized systems and align with indigenous economic practices. AIKS supervisors play a pivotal role in guiding students to navigate the complexities of AIKS, ensuring that research is conducted ethically and respectfully, and that the findings are disseminated in a manner that benefits the local communities involved. The integration of indigenous epistemologies into these technologies is significant for creating technologies that are culturally diverse and respectful, correcting an epistemic imbalance and rectifying historical exclusion (Ofosu-Asare 2025).

The prospects of supervising AIKS research, therefore, lie in its capacity to empower indigenous and local communities, promote cultural revitalization, and contribute to sustainable development. By engaging with indigenous knowledge holders as active participants in the research process,

AIKS supervisors and students can facilitate the co-creation of knowledge that is both theoretically sound and practically relevant. Such collaborative endeavours can lead to the development of culturally appropriate technologies, healthcare interventions, and educational programs that address the specific needs and aspirations of African communities. Moreover, the integration of African languages into emerging digital technologies development is crucial for ensuring inclusivity and promoting ethical digital practices

However, the supervision of AIKS also entails a number of challenges that must be addressed proactively (Gwagwa *et al.* 2022): These include:

- (i) Lack of policy support, inadequate funding, and bureaucratic processes can hinder the implementation of AIKS research in higher education.
- (ii) Insufficient resources for research, lack of readily available documentation, and the absence of standardized AIKS curricula impeding
- (iii) Higher education institutions in Africa often operate within Western-centric frameworks, which tend to marginalize AIKS and perpetuate a bias towards Western research methodologies and epistemologies.
- (iv) The loss of knowledge-holders due to factors like aging, migration, and cultural assimilation poses a significant threat to the preservation and transmission of AIKS.
- (v) Integrating AIKS requires developing appropriate research methodologies that respect AIKS and avoid imposing external frameworks;
- (vi) Supervising AIKS research necessitates strong engagement with local communities, ensuring ethical research practices and respecting their intellectual property rights.

The opportunities include the following aspects:

- (i) AIKS provides a framework for connecting learning with lived experiences and cultural contexts of African students, making education more meaningful and relatable.

- (ii) Integrating AIKS enriches the curriculum by showcasing diverse knowledge systems and promoting inclusivity within Higher Education.
- (iii) AIKS offers a holistic approach to knowledge, often emphasizing interconnectedness between humans and nature, which can foster a more comprehensive understanding of the AIKS world.
- (iv) AIKS holds potential for innovative solutions to local challenges, drawing on traditional practices and ecological knowledge for sustainable development.
- (v) Integrating AIKS is a crucial step in decolonizing higher education, challenging the dominance of Western knowledge systems and recognizing the validity of African intellectual traditions.

Conclusion

The study concludes that supervising AIKS research in higher education presents unique challenges and prospects, particularly in light of the rise of emerging digital technologies including AI. Digital technologies can enhance circularity and sustainability, ensuring that technological advancements also support a just transition and dignified life for all. However, realizing this vision requires a critical examination of existing supervisory practices, institutional structures, and epistemological orientations. For instance, supervising AIKS research requires addressing issues of knowledge ownership, cultural appropriation, and the potential for misinterpretation or misuse of AIKS.

There is also the challenge of integrating AIKS into existing research paradigms and ensuring ethical engagement with knowledge holders. Addressing these challenges requires a fundamental shift in mindset, moving away from Eurocentric epistemologies and embracing a more inclusive and equitable approach to knowledge production.

By fostering collaboration, promoting ethical research practices, and investing in capacity building, higher education institutions can create an environment that supports and celebrates AIKS, ensuring that these valuable knowledge systems are preserved, shared, and used to address the challenges facing African communities and the world at large. The prospects include the fact that research on AIKS can contribute to curriculum development, environmental sustainabili-

ty, and community development. It can also help decolonize education by valuing local knowledge and value systems.

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Chapter 4: Supervising Postgraduate Students in a Developing Country: Reflections on the Challenges

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Abstract

Postgraduate supervision is a complex and lengthy process that requires a blend of essential skills, deep expertise, strong mentorship and careful strategic planning. This chapter examines the challenges faced by students, supervisors, and higher education institutions in the supervision of postgraduate students, particularly those pursuing master's and doctoral degrees in the developing countries like South Africa. The study is informed by personal reflections and a review of relevant literature guided by both the theory of Knowledge Creation and Bronfenbrenner's Ecological Systems Theory. Timely completion and graduation for postgraduate degrees, especially at the master's and doctoral levels, are often hindered by issues such as poor student quality, dependency, insufficient supervisory skills, high workload, the supervision approach employed, meeting the demands of the Council on Higher Education and the absence of clear policies and guidelines. Although the present chapter primarily focuses on developing countries, its implication extends beyond this context, as its findings have broad applicability in various aspects of research, teaching, and learning. Moreover, the insights derived from this chapter can contribute to a deeper understanding of postgraduate supervision trends and the overall progression of postgraduate education, not only in South Africa but also in other regions facing similar challenges.

Keywords: Research supervisor, postgraduate student, research development, challenges, higher education, CHE

Introduction and Background

The process of postgraduate supervision is complex and time-intensive, requiring a diverse set of appropriate skills, deep subject understanding, a commitment to ethical standards, effective mentoring and thorough planning. Phatlane, Asonglefac and Sehoole (2023: 250) define supervision as the support and guidance provided by a designated supervisor to a postgraduate student, emphasising the supportive and educational aspects beyond just obtaining a degree.

Noticeably, the number of postgraduate enrollments has been steadily increasing in higher education institutions, both in South Africa and globally. This growth is highlighted by the CHE (2022a), which reports that South Africa produced 3,546 doctoral graduates, indicating significant progress toward the National Development Plan's (2012) goal of achieving 5,000 doctoral graduates annually by 2030. This increasing demand highlights the need for skilled supervisors who can effectively guide students through the complex academic and research processes involved in postgraduate studies while ensuring a timely completion and graduation.

Yet, successful postgraduate supervision in most higher learning institutions is often presented with numerous challenges as noted by various scholars. These challenges include academic misconduct such as data fabrication, falsification, and plagiarism; supervision approaches; power imbalances between supervisors and students; a lack of clear policies and guidelines; insufficient training and support for supervisors; poor communication between supervisors and students; inadequate supervision skills; frequent supervisor changes; and other specific issues (Bouter 2024; Odularu & Akande 2024; Saidi 2024; CHE 2022; CHE 2023; Paul, Olsen & Gul 2014; Mahlangu 2021).

As a result, postgraduate supervision is not only focused on ensuring degree completion but also on equipping students with the essential training, knowledge and skills needed to establish a strong foundation for their future academic careers.

This study explores the supervision of master's and doctoral programs in South Africa through focusing on the challenges encountered by students, supervisors and higher education institutions.

Rationale

Successfully guiding and supporting postgraduate students to graduation is a demanding process that requires specialised expertise and a deep commitment to academic mentorship from supervisors. On the students' side, it is equally essential to demonstrate a high level of commitment, persistence and resilience throughout their postgraduate journey. Nevertheless, the journey seems to be presented with several challenges, including research misconduct such as data fabrication, falsification and plagiarism, which are unethical and constitute fraud (Horn 2017; Bouter 2024). Additionally, the supervision approach itself can present significant hurdles. The Council on Higher Education (CHE 2022a), as cited in CHE (2023), notes that the apprenticeship approach can create power imbalances between the supervisor and student, especially when cultural or background differences are present. While co-supervision is often viewed as an effective strategy, Paul, Olsen, and Gul (2014: 35) assert that it can sometimes result in reduced commitment from each co-supervisor, leading to issues like conflicting advice and a lack of unified academic direction.

In the context of South African universities, Odularu and Akande (2024: 250) identify additional challenges, including the absence of clear policies and guidelines, inadequate training and support for supervisors and ineffective communication between supervisors and students. Saidi (2024: 15) also highlights the issue of insufficient funding, which affects many postgraduate students, even those who meet the eligibility criteria. Mahlangu (2021) observed inadequate supervision skills, frequent changes of supervisors and the specific supervision approach used as prominent challenges in postgraduate supervision at an open distance institution. Moreover, the heavy burden of supervision, particularly in institutions that offer doctoral programs, remains a persistent problem. This chapter examines the challenges associated with supervising postgraduate students in higher education institutions within the context of South Africa as a developing nation. The focus is on the difficulties encountered by students, supervisors and institutions in achieving timely completion and graduation.

How Information was Gathered

This chapter presents a comprehensive review of existing literature on the challenges faced in supervising postgraduate students within South African higher education institutions. The discussion highlights the obstacles encountered by students, supervisors and institutions in ensuring timely completion and gradu-

ation. A wide range of scholarly sources including books, book chapters, journal articles, reports, reviews, and other relevant print and digital materials were meticulously examined for this traditional/narrative literature review.

Additionally, the author's personal postgraduate journey and experiential knowledge have played a pivotal role in shaping this chapter. Insights gained from postgraduate studies at both the master's and doctoral levels have been instrumental in developing the necessary skills for scholarly writing, particularly in publishing journal articles and book chapters. This academic growth has been significantly influenced by supervisory support and mentorship, as well as active participation in collaborative activities such as conferences, webinars and professional development workshops. The next section discusses the employed theories.

Theoretical Perspective

Typically, studies utilise existing theories, conceptual frameworks, or models to analyse and interpret the problem under investigation. In some cases, researchers may also develop their own conceptual frameworks to provide a structured approach to their study. However, in this chapter, two well-established theoretical perspectives have been adopted to examine the nature of postgraduate supervision in universities. Specifically, the study integrates the Theory of Knowledge Creation proposed by Nonaka and Takeuchi (1995) and Bronfenbrenner's Ecological Systems Theory (1977). These theories provide a comprehensive lens through which to explore and understand the complexities and dynamics of postgraduate supervision within higher education institutions in the South African context.

Theory of Knowledge Creation (Nonaka and Takeuchi 1995)

As highlighted above, one of the employed theories is the Theory of Knowledge Creation, originally developed by Nonaka and Takeuchi (1995). While this theoretical framework has traditionally been applied to understand how organisations generate and manage knowledge, this research adapts it to examine the postgraduate supervision process in higher education. Specifically, the study focuses on three of the four knowledge conversion modes identified by Nonaka and Takeuchi: socialisation, combination, and internalisation to explore how knowledge is shared and developed within research supervisory relationships.

The *first mode*, socialisation, involves the exchange of tacit knowledge through shared experiences and interpersonal interactions (Farnese *et al.* 2019). This form of knowledge transfer typically occurs when individuals learn informally by observing and engaging with others in their work environment. In the context of postgraduate supervision, as well as drawing from the author's prior experiences as both a student and a supervisor, the process of socialisation becomes apparent through the regular meetings between supervisors and their students.

These meetings serve as key platforms for discussing research progress, providing constructive feedback and addressing any challenges that may arise throughout the research journey. While these meetings can take place in both online and face-to-face settings, online interactions have become more prevalent. This shift is largely influenced by the dynamic nature of our technologically driven world, where continuous advancements and innovations shape the way academic engagement and mentorship occur. These interactions play a crucial role in shaping students' research skills and academic development. Furthermore, socialisation is a fundamental aspect of co-supervision, where junior or less experienced supervisors gain insight and expertise from their senior colleagues. Through direct engagement in the supervision process, they develop their supervisory capabilities and academic mentorship skills.

The *second mode*, combination, refers to the transformation of explicit knowledge through the integration of various information sources, often facilitated by technological tools (Farnese *et al.* 2019, citing Koh & Kim 2004). In the context of postgraduate supervision, this involves leveraging digital resources and virtual research environments to enhance knowledge sharing and collaboration. In this vein, supervisors play a pivotal role in encouraging students to utilise online tools such as institutional repositories, academic databases and learning management systems to access and manage research materials. For example, at the University of Zululand, students benefit from using digital platforms such as Unizulu Athens, institutional databases, Turnitin, and Moodle as provided by this institution. These resources are of paramount importance for students who may have limited physical access to university facilities, such as part-time or distance-learning students, as they provide opportunities for continuous learning and engagement beyond traditional face-to-face interactions.

Finally, the *third mode*, internalisation, describes the process through which individuals absorb explicit knowledge and integrate it into their personal understanding, thereby expanding their tacit knowledge base. This stage bridges

theoretical knowledge with real-world applications, allowing individuals to apply what they have learned in practical settings. As postulated by Phatlane, Asonglefac and Sehoole (2023), postgraduate supervision is not solely about guiding students to the completion of their degrees; it also encompasses academic mentorship, professional development and emotional support. The knowledge acquired during the supervision process ranging from research methodologies to problem-solving strategies becomes invaluable in students' future academic and professional endeavors. By internalising these experiences, students develop the confidence and expertise needed to contribute meaningfully to their fields.

By adapting Nonaka and Takeuchi's (1995) knowledge creation theory to the context of postgraduate supervision, this study highlights the ways in which knowledge is generated, transferred, and internalised within higher education. The interplay of socialisation, combination, and internalisation highlights the dynamic nature of knowledge creation in academia, ultimately contributing to the professional and intellectual growth of both students and supervisors.

Bronfenbrenner's Ecological Systems Theory (1977)

This study is grounded in Bronfenbrenner's Ecological Systems Theory (1977), which emphasizes that an individual's development is shaped by multiple interconnected environmental systems that interact and influence their growth (Bronfenbrenner 1977). This theory has significant implications across various disciplines including psychology, sociology and education, as it provides a comprehensive lens for examining the complex interactions between individuals and their environments. Bronfenbrenner identifies four systems that play a role in human development including the microsystem, mesosystem, exosystem and macrosystem. Each of these systems contributes to shaping an individual's experiences, behaviors and overall development. However, in the context of this research, each system is linked with the supervision of postgraduate students (both master's and doctoral level) within higher education institutions, particularly in South Africa as a developing nation. It is in this sense these systems have been crucial in explaining how various factors such as direct interactions between students and supervisors, institutional structures, and external influences impact the postgraduate research supervision process.

Bronfenbrenner (1977) describes the microsystem as a system encompassing the structured activities, roles as well as the social interactions that an

individual directly experiences within a specific, face-to-face environment. In the context of postgraduate supervision, the microsystem can be viewed as the direct and dynamic relationship between the supervisor and the student. This relationship is fundamental in creating a conducive and supportive academic atmosphere that fosters intellectual growth, guidance and mentorship. Again, the effectiveness of this system determines how well a student is supported by navigating the research process, developing critical thinking skills and ultimately achieving academic success. The mesosystem refers to the interconnections and interactions between two or more settings that are significant to an individual's development (Bronfenbrenner 1977). Examples include the connections between home and school or between school and the workplace. In postgraduate supervision, the mesosystem can be understood as the collaborative engagement between the student, the supervisor, and faculty members, all of whom play a pivotal role in shaping the research experience. Furthermore, this system extends to include institutional structures and policies that guide the supervision process. For instance, institutional policies on research ethics and funding allocations significantly influence both the student's academic journey and the supervisor's approach. The alignment between these elements ensures that postgraduate students receive comprehensive support that enhances their research productivity.

In terms of the exosystem, Bronfenbrenner (1977), outlines that this system encompasses external social systems and institutional structures that indirectly impact an individual's development, even if the individual is not directly involved in these systems. Within the context of postgraduate supervision, a supervisor's external work commitments such as stress can influence the availability and quality of supervision provided to students. Additionally, university regulations regarding research clearance, ethical approval and dissertation submission timelines shape the overall postgraduate experience. Moreover, supervisors also play a critical role in exposing students to scholarly networks by encouraging participation in academic conferences, workshops, and seminars at both national and international levels. Such engagements not only keep students updated on emerging research trends but also strengthen their academic and professional competencies. The macro-system, of which is the broadest level in Bronfenbrenner's (1977) ecological model, encompasses the overarching cultural, societal and institutional influences that shape the micro, meso, and ecosystems. In the realm of postgraduate supervision, this system includes national and institutional policies regarding research funding, agreements such as memoranda of understanding between students and

supervisors and access to critical research resources such as academic databases and laboratory facilities. Thus, a well-structured macro-system ensures that postgraduate researchers have access to the necessary resources and an enabling environment to successfully complete their studies.

Through examining postgraduate supervision through Bronfenbrenner's ecological systems theory, it becomes evident that supervision is influenced by a complex interplay of interpersonal relationships, institutional frameworks and broader societal structures.

Reflections and Challenges

This section covers the author's reflections and reviews of relevant literature, offering insights from the perspectives of students, supervisors and institutions. It explores the challenges faced by each group, highlighting the issues for a deeper understanding of postgraduate supervision.

Students' Perspectives

Guiding students to graduation is a complex process that operates at the institutional, faculty, and departmental levels, requiring substantial commitment from both supervisors and students, predominantly students as master's and PhD research projects are mostly conducted independently. Notably, a successful supervision process is often anchored by the development of a strong and positive working relationship between the supervisor and the student (Ocholla 2021; Vereijken *et al.* 2018; Tsampiras 2017). It is observed that this relationship is typically formalised through a written agreement, commonly referred to as a Memorandum of Understanding (MOU) in many institutions, which outlines the expectations, roles, and responsibilities of both parties (supervisor and supervisee) throughout the supervision process. In this vein, it is crucial that both the supervisor and the student thoroughly read and understand the terms of the MOU before agreeing to them. However, it is often observed that this agreement is signed without careful consideration, leading to various challenges during the supervision process. For instance, many students do not fully comprehend their responsibilities in the research process, leading to issues such as expecting to be constantly reminded about their work, lack of commitment, a lack of mutual respect, failing to meet deadlines, engaging in substance abuse, or exhibiting behavioural problems. It is therefore critical to note that, such challenges can significantly hinder timely graduation, highlighting a critical

issue within many higher education institutions that needs to be addressed.

Another pressing concern relates to the issue of producing poorly-prepared students. Often, these students are perceived as products of inadequate supervision, guidance and support during their research projects. Additionally, this challenge is closely linked to the shortage of qualified academic staff who possess the necessary expertise to supervise students, predominantly doctoral students in many universities. However, it is important to acknowledge that poor quality students are not always exclusively the result of inadequate supervision. In some instances, students themselves contribute to their own academic struggles due to factors such as a lack of commitment, insufficient research skills, or personal challenges that hinder their progress. For instance, some students may lack the motivation to engage in independent reading or resist participating in developmental opportunities provided by their institutions, such as workshops, seminars and webinars organised at the institutional, faculty or departmental levels. This observation emphasises the necessity for postgraduate supervisors to foster greater independence and autonomy among students. Encouraging students to undertake research independently and autonomously is crucial, as it plays a significant role in helping them acquire the necessary skills and competencies needed for their academic and professional growth. Despite this, many students tend to rely heavily on their research supervisors, expecting to be spoon-fed rather than taking responsibility for their own learning and development. Again, students sometimes lose momentum of which could be closely related to the observation made by Saidi (2024: 15) that financial resources are often insufficient to support all qualified postgraduate students, even those who meet the eligibility criteria.

Supervisors' Perspectives

Research supervisors, as the primary drivers of research projects, often encounter a range of challenges within universities, and the universities of focus in the current study are no exception. These challenges include a lack of appropriate supervisory skills, an overwhelming workload, and the methods employed in the supervision process. Specifically, in terms of supervisory skills, it has been observed that a significant number of supervisors, particularly in doctoral programs, are inadequately equipped with the necessary skills. As reported by Odularu and Akande (2024: 265) one of the significant issues in postgraduate supervision is the inadequate competence of supervisors, coupled with a lack of adherence to professional ethics.

Similarly, Mahlangu's (2021) study found insufficient supervisory skills, frequent supervisor changes and the choice of an appropriate supervision approach to be the main challenges in postgraduate supervision. These deficiencies reflect a broader concern that ethical conduct and the practice of research serve as the cornerstone for every research undertaking within a department, faculty or institution. This deficiency can lead to delays in guiding and supporting students toward graduation, ultimately resulting in graduates of lower quality. To address these issues, many universities organise developmental workshops, conferences, seminars, and webinars aimed at enhancing the skills of their staff. Participation in these research-related activities plays a crucial role in capacitating supervisors with necessary capabilities, ensuring that they remain at the forefront of their respective fields and are better positioned to guide their students effectively. Nevertheless, their effectiveness can never be guaranteed as a result that some staff members are reluctant to engage in such professional development opportunities, which can hinder the overall effectiveness of these initiatives. It is also assumed that some academic staff members, particularly supervisors, occasionally participate in these activities primarily to enhance their professional profiles and get promotion.

On the other hand, despite the deficiency in supervisory skills, many supervisors are overwhelmed by excessive workloads, which makes it difficult for them to balance all the key performance areas (KPA) required by the university, including research. For instance, some supervisors are responsible for overseeing many students, creating a bottleneck that delays student graduations. Additionally, some supervisors are burdened with heavy teaching responsibilities, such as teaching more than three modules per semester, while simultaneously supervising numerous students. These challenges are particularly common among new or emerging researchers, who may find it difficult to quickly advance and establish themselves in the research field due to these overwhelming demands. This imbalance between teaching, supervision, and other academic responsibilities can hinder their professional growth and development, making it harder for them to contribute effectively to both research and the academic community.

An approach employed by supervisors in their supervision is observed to be also problematic. For example, co-supervision is often believed to be an effective approach to successful supervision, however, Paul, Olsen and Gul (2014: 35) discourage it as observing that it may sometimes result in reduced commitment from each co-supervisor compared to scenarios where only one supervisor is involved. The authors believe such method of supervision can lead

to a diffusion of responsibility, conflicting advice, and a lack of a unified academic perspective, potentially causing students to manipulate one supervisor against the other to avoid following advice they may not want to accept. However, Fragouli (2021: 4) and Ngulube (2021) argue that co-supervision is especially beneficial as it provides access to diverse expertise, allowing less experienced supervisors to learn from the guidance of more seasoned colleagues. An employed approach of supervising students is a big determinant if the whole supervision process will be a success on ideal time or not. On this note, it is recommended that supervisors employ more than one approach in supervising their students.

Paul, Olson and Gul (2014), Bournier and Hughes (1991), Fragouli (2024), and Ngulube (2021) attest to the value of using collaborative tools like Google Docs, Email, Microsoft Teams, WhatsApp, Zoom as well as approaches such as co-supervision, training workshops, feedback mechanisms and other supportive strategies in supervising postgraduate students. Employing more than one approach significantly helps in accommodating different students learning styles. Another complementary element to the employment of different supervision approaches is to have good strategic planning, so as to address what seems problematic for supervisors. Creating a well-structured plan and adhering to it is a significant challenge for many supervisors. And students are no exception to this struggle. Yet, handling the intricacies of the supervisory process requires creating a proper work plan to support the entire process. Even the best-laid plans fall flat without a strong plan, which causes delays and makes it harder to help students finish their research.

Significant to note is that an approach chosen by a supervisor is a critical factor in determining whether the supervision process will be successful and completed within an ideal timeframe. So, it is recommended that supervisors adopt multiple approaches to supervising their students. So doing, they can better accommodate the diverse learning styles of their students, which can enhance the effectiveness of the supervision process. In addition, supervisors should also engage in strategic planning with their students.

Institutional Perspective

Achieving research throughput, typically measured by the graduation of postgraduate students, is a key responsibility of universities. This expectation is driven by mandates from the Council on Higher Education (CHE), which requires universities to produce a steady stream of postgraduate graduates. For

example, the CHE (2022a) reported the National Development Plan's (2012) goal of achieving 5,000 doctoral graduates annually by 2030. Thus, universities pass this responsibility down to their faculties, and ultimately, it is the departments that bear the primary responsibility for supervising students to successful completion. This process can be associated to peeling an onion, with different layers representing the various levels of accountability, from the CHE to the university, from the university to its faculties, and finally, from the faculties to the departments. While this structure aims to ensure that universities meet their graduation targets, it also comes with both benefits and shortfalls. On the positive side, such demands can lead to a higher number of students graduating within the expected timeframe, enhancing the institution's reputation and meeting CHE's requirements.

Conversely, the potential downfall lies with the pressure to graduate students which may lead to the production of graduates who are of lower quality. Similar findings are also evident in the study of Mahlangu (2021). Additionally, it can place a heavy burden on academic staff, who may find themselves overwhelmed by the large number of postgraduate students they are required to supervise while also having to take the responsibilities of teaching and learning as well as the services to the university. The demand's double character highlights how difficult it is to strike a balance between quantity and quality in higher education. Again, such could sometimes lead to research being exposed to various forms of misconduct, including data fabrication, falsification or plagiarism (Horn 2023: 72).

Again, most higher education institutions seem to be struggling with the implementation and effectiveness of policies and guidelines intended to facilitate research activities. Findings of similar nature are evident in Odularu and Akande (2024) study. While some institutions do have these policies in place, they often fail to utilise them effectively or to their full potential. In practice, certain policies are enforced, while others are neglected or inconsistently applied. For example, based on the author's experience, the policies governing the appointment of research supervisors are not always adhered to rigorously. This inconsistency in policy application can weaken the research process, leading to challenges in maintaining standards and ensuring that supervisory roles are assigned appropriately.

Conclusions

It can be concluded that successful supervision of postgraduate students is a

multifaceted process that necessitates a combination of essential competencies, thoughtful and strategic planning, strong mentorship, adherence to ethical research practices and the establishment of a good and collaborative relationship between supervisors and students.

The ability of postgraduate students, particularly those pursuing master's and doctoral degrees, to complete their studies within the expected timeframe is often compromised by several challenges.

These include inadequate academic preparedness or research skills among students, excessive reliance on supervisors for guidance, a lack of sufficient supervisory expertise, overwhelming workloads for supervisors, the effectiveness of the chosen supervision approach as well as institutional expectations, such as compliance with the requirements set forth by the Council on Higher Education.

Furthermore, the lack of clearly defined policies and guidelines heightens these challenges, creating obstacles to the establishment of a well-structured and efficient supervision process that facilitates the timely completion and graduation of postgraduate students. Even when institutional policies and guidelines are in place, their effectiveness is often hindered by some inconsistencies in their application. For example, some university structures may deliberately overlook these regulations rather than implementing them appropriately resulting to unnecessary delays on students' progress, increased frustration and prolonged completion times for their research projects.

Recommendations

Considering the numerous challenges that hinder the effective supervision of postgraduate students in universities, it is crucial to transform these obstacles into opportunities for improvement. This can be achieved by fostering a culture of independent learning and research, enabling students to develop critical thinking and problem-solving skills that reduce excessive reliance on their supervisors. Additionally, ensuring that students adhere to ethical research practices is essential for maintaining academic integrity and producing high quality research in an institution. Addressing gaps in supervisory skills is also vital, which can be accomplished through continuous professional development, participation in training workshops and engagement in other development activities and learning initiatives. Moreover, the implementation of well-structured and effective supervision strategies is necessary to mitigate these challenges. In addition, universities could provide students with the enough necessary resour-

ces and support systems to successfully complete their research projects within the expected timeframe, ultimately improving postgraduate success rates.

Limitations/ Gaps

This chapter has primarily concentrated on developing countries, with a specific focus to South Africa. Future research could expand its scope to encompass the entire African continent, providing a more comprehensive understanding of postgraduate supervision across diverse educational systems and institutional frameworks. Such studies could offer valuable insights into common challenges faced by universities in different African countries and identify standardised strategies and best practices that contribute to the successful supervision of postgraduate students. By examining a broader range of institutions, future research could help establish effective supervision models that not only facilitate timely completion of postgraduate degrees but also enhance the overall academic reputation and credibility of universities within the region.

Implications

While this chapter primarily examines issues related to postgraduate supervision in developing countries, its relevance extends far beyond this specific context. The findings of this chapter have broad implications for research, teaching, and learning, offering valuable insights that can inform best practices across various academic settings. Furthermore, the chapter contributes to a more comprehensive understanding of postgraduate supervision trends and the overall development of postgraduate education, not only within South Africa but also in other regions experiencing comparable challenges.

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Chapter 5: A Reflection on Issues of Power, Gender and Culture in Postgraduate Supervision

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Abstract

South African higher education institutions have seen a steady rise in postgraduate enrolments as part of a broader effort toward inclusive transformation. Despite this growth, challenges related to power dynamics, gender inequality, and cultural exclusion continue to shape the postgraduate supervision experience. This paper reflects on these systemic issues using a qualitative thematic analysis of secondary data to explore how postgraduate students navigate the complexities of supervision. The findings highlight that, although higher education is now more accessible in post-apartheid South Africa, many students, particularly those from historically marginalised backgrounds continue to face exclusionary practices that undermine their academic journeys. The study calls for inclusive supervision models, better institutional support systems, and policy reforms that acknowledge and address the realities of diverse postgraduate students. Additionally, the paper recommends the implementation of ongoing professional development for supervisors and the creation of collaborative, culturally responsive supervision practices. These measures are essential to redress power imbalances and ensure meaningful transformation in the postgraduate landscape.

Keywords: globalisation, power, postgraduate supervision, higher education, gender

Introduction

In the post-apartheid era, South Africa's higher education sector has undergone significant transformation, particularly in expanding access to postgraduate studies. However, despite these strides, postgraduate supervision remains a deeply contested space where power relations, gender inequality, and cultural tensions continue to undermine the academic experience for many students (Mercer-Mapstone & Bovill 2020). This paper explores how these intersecting dynamics such as power, gender, and culture shape the experiences of postgraduate students, often in ways that reproduce exclusion and marginalisation within academic institutions. The supervision process is not merely a pedagogical activity; it is embedded within institutional cultures, historical legacies, and societal structures that influence who is included, who is supported, and who succeeds. For students from historically disadvantaged groups, including women, non-White students, and international students, supervision often reflects broader inequities rooted in colonial and patriarchal systems (IseOlorunkanmi *et al.* 2021). Understanding the implications of these structural dynamics is essential for transforming supervision into a more inclusive and equitable practice.

Gumede (2021) reveals that the transformation is a pertinent issue in the higher education sector in South Africa especially in the post-apartheid dispensation. Transformation within higher education was aimed at demolishing the barriers faced during apartheid so that higher education embraces inclusion and offers equal access to all students (Gumede 2021). Postgraduate education contributes to building and expanding knowledge by responding to both local and international challenges and providing solutions. Higher education institutions in South Africa have noted an increase in postgraduate enrolment. Student cohorts in higher education (HE) are rapidly diversifying in an era of massification and internationalisation (Mercer-Mapstone & Bovill 2020). The calls for diversity in HE has increased dramatically over the past few years. The 2021 July unrest further solidified the need to embrace diversity as communities were fuelled by anger and tension transcending through the various diversity boundaries. This has heightened calls for intercultural communication, social cohesion, and diversity at educational institutions in order to address the broad range of diversity challenges. Mercer-Mapstone and Bovill (2020) argue that HE, however, is evolving at a slower rate than student cohorts are diversifying, and barriers faced by students are inequitable resulting in underserved groups facing greater challenges than their 'traditional' counter-

parts in achieving academic success. There is a need to meet the demands of the call for inclusive transformation in higher education. Keeping in mind that the postgraduate students entering higher education come from diverse backgrounds with varied needs.

This paper argues that a critical examination of power hierarchies, gender norms, and cultural expectations within postgraduate supervision is vital for advancing social justice in higher education. Drawing on Diversity Pedagogy Theory and using a reflective, qualitative lens, the discussion builds a case for rethinking supervision as a collaborative and culturally responsive practice and highlights the need for systemic change in the ways postgraduate students are supported and mentored in South African universities.

Calls for Transformation in Higher Education in South Africa

Vandeyar (2020) indicates that the statue of Cecil John Rhodes was the catalyst that sparked the #RhodesMustFall and #FeesMustFall protest actions, which ignited national calls for decolonisation and structural reform in South African universities. In the wake of these movements, universities responded with urgency. A wave of curriculum transformation efforts swept across campuses, leading to the establishment of various structures such as the Curriculum Transformation Committee to drive institutional change. Academics were instructed to critically review and revise their course materials, including study guides, to reflect decolonial principles and epistemologies. This entailed the integration of African worldviews, gender-sensitive content, and the inter-rogation of Western-dominated knowledge systems (University of Cape Town 2022).

However, despite the symbolic and procedural shifts, a central concern remains: Are universities simply reforming surface-level policies while still failing to address the deeper systemic inequalities embedded in their institutional cultures? As Mercer-Mapstone and Bovill (2020) point out, increasing enrolment from historically marginalised groups does not automatically translate into equitable experiences or outcomes. If institutions do not adapt their pedagogical and supervisory models to meet the needs of a diverse postgraduate population, they risk reinforcing the very social divides they aim to dismantle.

To move beyond symbolic gestures, higher education institutions must re-evaluate the inclusivity of their teaching, supervision, and institutional practices. This involves designing responsive frameworks that affirm the cultural identities and lived experiences of all students, especially those from

previously disadvantaged backgrounds. Meaningful inclusion fosters not only academic success but also promotes social cohesion and institutional belonging. Mzangwa (2019) supports this view, noting that while post-apartheid higher education has expanded access, persistent concerns about participation, equity, and student support remain unresolved. Power imbalances continue to shape the postgraduate experience—particularly for first-generation students who are still navigating unfamiliar academic environments. Among these challenges, gender inequality remains a critical issue. Women in postgraduate education often face socio-cultural and institutional barriers that position them as inferior or unworthy of academic advancement, primarily due to patriarchal ideologies entrenched in society (Alabi, Seedat-Khan & Abdullahi 2019).

Majee and Ress (2020) argue that addressing these challenges requires a robust theoretical framework grounded in decoloniality, which interrogates the lingering effects of colonial power structures in knowledge production. Decoloniality, rooted in the struggles of colonised peoples, proposes alternative frameworks for understanding how systemic inequality operates in higher education. Yet, the growing momentum for decolonisation has sparked debate among academics, some of whom remain uncertain about its implications for disciplinary integrity and postgraduate output.

Franco *et al.* (2019) extend this discussion globally, suggesting that higher education needs a radical shift in policy and practice to align with the principles of Higher Education for Sustainable Development (HEfSD). Despite strong policy rhetoric, implementation gaps persist, and universities often struggle to translate decolonial and sustainability goals into actionable curricula. It is, therefore, imperative that higher education policymakers design targeted, inclusive policies that specifically address the lived realities and academic needs of postgraduate students especially those from marginalised gender, racial, and cultural groups.

Inclusive Education

According to Dalton *et al.* (2019), the concept of inclusive education first emerged in South African education policy during the post-apartheid period as a response to decades of systemic discrimination based on race, class, and gender. It was envisioned as a transformative framework intended to dismantle exclusionary practices and ensure that all students regardless of background could access and succeed within the education system. However, implementation has proven challenging. A 2016 study highlighted several persistent

barriers, including inadequate academic training on inclusive education, limited support structures in higher education, and weak engagement from education departments and communities (Dalton *et al.* 2019).

Although policies express a commitment to inclusion, the lived reality for many students suggests otherwise. Inclusive education often remains more aspirational than practical, especially within the postgraduate environment where structural inequalities continue to shape student experiences. This includes disparities in access to academic support, lack of cultural sensitivity in teaching and supervision, and persistent gender biases. For postgraduate students from marginalised backgrounds such as women, first-generation scholars, and students from rural or low-income communities. These issues can lead to feelings of alienation, disempowerment, and unequal opportunities for success.

Leisyte, Deem and Tzanakou (2021) argue that for higher education to be truly inclusive, institutions must move beyond a narrow focus on individual accommodations and instead develop strategies that address group-based disadvantages. This means acknowledging how systemic issues such as patriarchy, cultural hegemony, and epistemic injustice affect students' participation and success. Within the context of postgraduate supervision, inclusive education entails more than access to a supervisor or enrolment in a programme. It involves creating an enabling environment where students' diverse identities and intellectual contributions are recognised, valued, and supported throughout the research journey.

The connection between inclusive education and the themes of power, gender, and culture in postgraduate supervision is therefore fundamental. Supervisory practices that are not inclusive risk reproducing the very inequalities that educational policies claim to redress. Supervisors who lack training in inclusive pedagogy may unintentionally reinforce power hierarchies, ignore cultural differences, or fail to challenge gender norms further marginalising students who already face systemic barriers. In contrast, inclusive supervision creates spaces of empowerment, where knowledge production becomes a shared, respectful, and culturally responsive process.

Thus, fostering inclusivity in postgraduate supervision is a critical step toward achieving broader goals of equity and transformation in higher education. Institutions must invest in staff development, inclusive policy implementation, and monitoring mechanisms that ensure the principles of inclusive education are embedded within all supervisory relationships. Without these commitments, calls for transformation and decolonisation in higher education risk becoming rhetorical rather than structural.

Internationalisation

Internationalisation in higher education is a multifaceted concept that encompasses political, economic, sociocultural, and academic strategies aimed at integrating global dimensions into university teaching, research, and engagement. De Wit and Altbach (2021) note that internationalisation has evolved from a peripheral concern to a central reform agenda, with institutions seeking to enhance global competitiveness, expand research collaborations, and foster cross-cultural engagement. It is defined as ‘the intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education’ (De Wit *et al.* 2015:29).

A key component of this agenda is the recruitment and integration of international students. These students, especially those from other African countries, are vital to the internationalisation strategy of many South African universities. They contribute to institutional research outputs, help build regional academic networks and diversify the learning environment by bringing multiple cultural perspectives into classrooms and research settings. Their enrolment often aligns with universities’ goals of improving global rankings, accessing international funding, and fulfilling regional development objectives. However, while international students play a crucial role in realising the goals of internationalisation, their lived experiences often reveal a stark disconnect between institutional policies and student realities. Many international students face profound challenges in adapting to new academic, social, and cultural environments. Language barriers, lack of social support, xenophobia, and exclusion from informal academic networks contribute to a persistent sense of alienation. De Wit and Altbach (2021) caution that internationalisation can be reduced to a commodified export model, where the presence of international students is valued more for institutional gain than for genuine cross-cultural exchange or student development.

Carolissen and Kiguwa (2018) argue that this sense of being ‘elsewhere’ is a defining feature of the international student experience in South Africa. Without intentional efforts to foster inclusion and belonging, internationalisation risks becoming a symbolic exercise, benefiting the institution while marginalising the very students it relies on. This highlights the importance of reimagining internationalisation not just as a policy or strategy, but as a holistic practice that centres student wellbeing, academic support, and intercultural understanding.

Majee and Ress (2020) further assert that internationalisation policies

often prioritise economic and knowledge economy imperatives, overlooking the need for inclusive pedagogical practices. As a result, international students may struggle academically, with higher dropout and failure rates at the postgraduate level. A study in South Africa found that financial constraints and lack of support were significant factors contributing to higher dropout rates among international postgraduate students (Mphekgwana *et al.* 2020). These outcomes underscore the need for institutions to move beyond the rhetoric of internationalisation and actively cultivate learning environments where international students are supported, valued, and integrated into the academic community.

Marginalization and Exclusion

Lebelo (2021: 1) believes that ‘the effects of marginalisation and exclusion can be seen not only physically but emotionally, psychologically, and socially’. Although a melting pot of cultures exist in South Africa, various issues of segregation occur by race, gender, ethnicity, tribalism, and social ranking which continues to separate students in the higher education sphere. Within a country like South Africa social inequalities are reflected historically in the higher education landscape due to the systematic exclusion of blacks and women because of apartheid and colonialism (Lebelo 2021). After 1994, within the post-apartheid era higher education was tasked with bringing about transformation and fostering social inclusion among the marginalised. Along with transformation, universities were also tasked with decolonisation which sought to abolish power relations and epistemologies of the colonial order and decolonial movements. Gumede (2021) adds that among the objectives of the White Paper for Higher Education was to promote equity of access and fair chances of success to all who are seeking to realise their potential through higher education, while eradicating all forms of unfair discrimination and advancing redress for past inequalities; contribute to the advancement of all forms of knowledge and scholarship specifically addressing the varied challenges and demands of local and international contexts. In 2012 the Integrated Transformation Plans (ITPs) was adopted as a tool to support universities in developing an institutional social contract that would assist them in managing transformation.

Bhatti and Ali (2021) explain that higher education globally has increased focus on diversity, inclusion, and equity in leadership and management within the postgraduate sector. However, statistics show that issues of power, gender and culture are still visible in higher education. Akala (2018)

postulates that one of the key challenges in the South African transformation agenda is how to create a balance between gender, race, and social class.

Gender Inequality

Research shows that higher education is confronted with challenging the colonial impact and commodification of institutions of higher learning and the roles that these institutions play in societies as institutions continue to produce (Lebelo 2021. Mzangwa (2019) argues that discourse on equity and access are tied to the ideological and philosophical streams that define the values reflected in the educational system.

Alabi, Seedat-Khan and Abdullahi (2019) avow that the call for restructuring higher education with a focus on racial and gender equity has become a priority for key stakeholders in South Africa. Apartheid entrenched the notion of segregation and inequality among races in South Africa, which resulted in a gap between non-white and white; privilege and wealth was a reserve for white South Africans. Within a country like South Africa, women find themselves in this segregated predicament. Alabi, Seedat-Khan and Abdullahi (2019) argue that beyond apartheid, the underrepresentation of women in higher education is attributed to the socio-cultural dominant in patriarchal systems.

We live in an era where many women claim to be emancipated yet gender inequality is still very dominant in South Africa. Many organisations including universities are attempting to address this challenge. Akala (2018) argues that the segregated and gendered nature of education under the apartheid regime substantially submerged black women's position in society. The few women, who managed to rise above their patriarchal disadvantage to venture into education, received inferior education aimed at cementing their roles as nurturers and home keepers. Yet today more than 20 years later the gender gap in academia still exists. Socio-cultural, patriarchal beliefs and financial constraints are among the greatest barriers to women's successful participation and completion of postgraduate degrees. Within the African context, many still believe that a woman's place should be at home with the children and there is no need for higher education thus placing many African women at a disadvantage. This reiterates vital views prevalent in the existing literature on key factors impeding women's access and completion of postgraduate education (Alabi, Seedat-Khan & Abdullahi 2019). Many researchers have highlighted the systematic gender inequalities in Africa's higher education

which has been consistently emphasized the plight of African women who attempt to pursue postgraduate studies. There are various challenges female students face such as teenage pregnancy with many university students ending up pregnant whilst engaging in their studies and forced to drop out. The access to basic needs such as sanitary pads is another ongoing issue due to the high poverty and unemployment rate in South Africa. Clear attention must be given on ways to address gender, institutional cultures and administrative structures at South African universities. Carolissen and Kiguwa (2018) aver that due to the disparities faced by postgraduate students, they face a challenge in finding their sense of belonging and risk alienation among peer students in the context of higher education in South Africa. The ongoing protests in South African higher education highlight the inequalities that students still face and conflicted with.

Carolissen and Kiguwa (2018: 3) state that black students within universities may already still feel marginalised and overwhelmed by western commodities being left with a sense of alienation especially with English referred to as a language of knowledge and power. Many South African is home to eleven official languages and students are challenged with the language barrier as English is not their first language, as many will speak in their native home language.

Gender inequality remains deeply entrenched in South African higher education, particularly within the realm of postgraduate supervision. While the intersection of race and gender is undeniable especially in a country still healing from the legacies of apartheid the core issue lies in how gender dynamics continue to disadvantage women, particularly black women, in academia. Postgraduate supervision is a site of power, mentorship, and academic identity formation. Yet, it often reflects broader systemic inequalities that position women, especially non-white women, at the margins. Alabi, Seedat-Khan, and Abdullahi (2019) argue that the persistent underrepresentation of women in higher education is not simply a residue of apartheid, but a result of patriarchal socio-cultural norms that continue to undervalue women's intellectual capacity and leadership potential. This manifests in supervision relationships where female students may receive less encouragement, fewer research opportunities, or limited access to professional networks compared to their male counterparts. The apartheid regime structured education in a racial and gendered manner, relegating black women to inferior education systems designed to reinforce their roles as homemakers rather than intellectual contributors (Akala 2018). Although apartheid has officially ended, its patriarchal ideologies persist.

Women who enter postgraduate programmes especially black women often do so despite cultural resistance, financial hardship, and institutional neglect. These conditions contribute to higher dropout rates and slower progression among female postgraduate students.

Gender inequality in postgraduate supervision is not only structural but also cultural. As Carolissen and Kiguwa (2018) note, postgraduate spaces are often alienating, particularly for black women who must navigate unfamiliar academic cultures dominated by Western epistemologies and male-centred norms. English, as the dominant language of instruction and research, further exacerbates exclusion, especially for those whose first language is not English. This linguistic gatekeeping often disadvantages women who are already negotiating multiple layers of marginality. While this discussion prioritises gender, it is critical to acknowledge how race intensifies gender inequality. As a non-white female academic, the experience of alienation is not simply due to gender alone, but also to the compounded effects of being black in historically white academic spaces. However, the central issue is that gender-based discrimination exists even among women across different races, suggesting that gender inequality operates independently and in tandem with racial inequities. Numerous challenges disproportionately affect female postgraduate students in South Africa: cultural expectations to prioritise family over career, teenage pregnancy, financial constraints, and even lack of access to basic necessities like sanitary pads (Alabi *et al.* 2019). These barriers reveal how gendered expectations and material disadvantages intersect to restrict women's academic success, often leading to delayed graduation or withdrawal from postgraduate study altogether.

Mzangwa (2019) rightly notes that equity and access are ideological issues that reflect the values of an education system. Thus, addressing gender inequality in postgraduate supervision requires a holistic transformation of institutional culture, supervision models, and support structures. Universities must interrogate their own practices, decolonise academic spaces, and create mentoring systems that actively support female students in navigating the postgraduate journey. While race remains a powerful determinant in shaping access and experience in higher education, gender inequality is a central issue that persists independently and often more pervasively within postgraduate supervision. By focusing on gender while acknowledging how race can exacerbate inequity we move closer to addressing the systemic, cultural, and interpersonal barriers that continue to hinder women's academic advancement in South Africa.

Institutional Culture

Institutional culture represents the values, attitude, styles of interaction, collective memories, and the way of life of the university known by those who work and study in the university environment through their lived experiences (Lebelo 2021). Institutional culture is often viewed as a core factor for the success of higher education transformation but is often the biggest obstacle to overcome.

Akala (2018) affirms that although there is overwhelming evidence indicating, women's representation has surpassed that of men, gender gaps are still evident. The factors that perpetuate gender inequalities among students are sexism, economic circumstances, social class, and cultural influences (Akala 2018). These patriarchal systems cut across race and culture. Although attempts have been made to alleviate the gender gap, it has proved unsuccessful. Students still find themselves fighting for recognition.

Higher education institutions (HEIs) are not neutral spaces they reflect and reproduce the inequalities present in the broader society. While South Africa's universities attract international postgraduate students due to their relatively advanced research infrastructure and funding opportunities (IseOlorunkanmi *et al.* 2021), these institutions also become sites where foreign nationals, especially African women, experience marginalisation. The challenges faced by international students such as xenophobia, cultural alienation, and lack of institutional support intersect with gender inequality to create multiple barriers to academic success.

Although xenophobia affects many international students, female foreign students face a compounded struggle. They are not only seen as 'outsiders' in a nationalistic sense but are also navigating patriarchal academic cultures. This dual burden can influence their access to supervision, mentoring, funding, and participation in academic networks. The socio-economic hostility described by IseOlorunkanmi *et al.* (2021) adds stress to their academic journey, making them more vulnerable to dropout, exploitation, or exclusion in supervision relationships.

Postgraduate supervision is often built on trust, open communication, and shared academic values. For international female students, especially those from other African countries, the experience of xenophobia within and outside HEIs erodes their sense of belonging, which is already fragile due to gender disparities. As Majee and Ress (2020) note, the belief among some Black South Africans that they are the rightful beneficiaries of transformation efforts may

result in subtle (or overt) exclusion of foreign nationals in opportunities and resources this includes academic support systems and fair treatment in supervision.

HEIs have a dual responsibility: (1) to offer quality education and research opportunities, and (2) to create inclusive, safe, and equitable environments for all students. When institutions fail to respond adequately to xenophobic sentiments or gender-based challenges, they become complicit in reinforcing inequality. The lack of institutional action against xenophobic practices or gender discrimination in supervisory relationships reveals gaps in transformation and decolonisation efforts within HEIs. The friction and resentment felt by Black South African students who perceive regional competitors for resources as undermining post-apartheid gains underscore the difficult balancing act higher education policymakers face when pushing for internationalisation alongside fulfilling social redress mandates (Majee and Ress 2020).

Dalton *et al.* 2019) avows that globally institutions of higher education are recognising their responsibilities to achieve the full inclusion of individuals with differing needs. There are groups of postgraduate students are vulnerable and are exposed to the harsh wrath of the so-called powerful supervisors who sometimes undermine the research skills of the marginalised groups of postgraduate students.

Power Relations between Supervisor and Student

Power dynamics between supervisors and postgraduate students are deeply embedded in the broader structures of higher education, particularly within South Africa's historically unequal system. Universities' increasing emphasis on attracting international postgraduate students to enhance research output (Majee & Ress 2020) often overshadows the urgent need for redress and equity for historically marginalised South African students. This strategic prioritisation creates tension and resentment among Black South African students, who feel sidelined in the distribution of opportunities and resources. These institutional decisions are not neutral, they reflect and reproduce existing inequalities, which in turn shape supervisory relationships.

Within this unequal environment, postgraduate supervision becomes a key site where power is exercised and experienced. Supervisors, as gatekeepers of knowledge and academic progression, often operate from within their own cultural, epistemological, and disciplinary traditions (Grant, Hackney & Edgar

2014). This can create a disconnect between students—especially women and non-Western students—and their supervisors. For many female postgraduates, this disconnect is compounded by patriarchal academic cultures that question their presence, capability, and right to participate in knowledge production (Akala 2018; Alabi, Seedat-Khan & Abdullahi 2019).

Supervisors hold the authority to shape the student's academic journey, yet this authority can often translate into intimidation rather than empowerment. As Tsotetsi and Omodan (2020) note, the hierarchical nature of supervision can lead to harsh feedback and exclusionary practices that leave students feeling dehumanised and afraid to engage. Students may internalise these imbalances, leading to withdrawal, silence, or even dropout. When supervisors are frequently unavailable or fail to provide mentorship and emotional support, as observed by Cekiso *et al.* (2019) and Masek (2017), students are left to navigate complex academic demands without guidance, compounding feelings of isolation and helplessness.

These power relations are also shaped by broader cultural and structural challenges. For instance, female students may face additional pressures from patriarchal expectations at home and in society, alongside academic marginalisation. The lack of recognition for their lived realities, financial burdens, and the dominance of Western epistemologies in academic supervision all contribute to their alienation. Majee and Ress (2020) advocate for a decolonial perspective that challenges these entrenched hierarchies and fosters a more inclusive, dialogical learning environment, one where students from diverse backgrounds can feel seen, supported, and empowered. In essence, postgraduate supervision is not just an academic relationship, it is a cultural, political, and gendered space. Addressing the imbalances of power within this space is essential to creating a supervision culture rooted in empathy, equity, and mutual respect.

Theoretical Framework

Diversity Pedagogy Theory (DPT)

The Diversity Pedagogy Theory (DPT), as articulated by Sheet (2009), offers a critical lens for understanding the intrinsic relationship between culture and cognition, particularly in academic settings. At its core, DPT posits that effective teaching and supervision must intentionally acknowledge and incorporate students' cultural experiences, values, and knowledge systems into

learning processes. This theory is especially pertinent within the context of postgraduate supervision in South African higher education, where power imbalances, gender inequality, and cultural alienation remain key concerns.

In the postgraduate supervision context, DPT underscores the need for culturally inclusive supervision practices. Sheet (2009) maintains that culturally competent educators or in this case, supervisors must first observe students' behavioural and cultural patterns to understand the unique competencies and challenges each student brings. Second, they must use this knowledge to inform and adapt their supervisory approaches to better support student learning, motivation, and engagement. This aligns with Ngulube's (2021) view of postgraduate students as co-constructors of knowledge, who require meaningful academic guidance that is both responsive and inclusive.

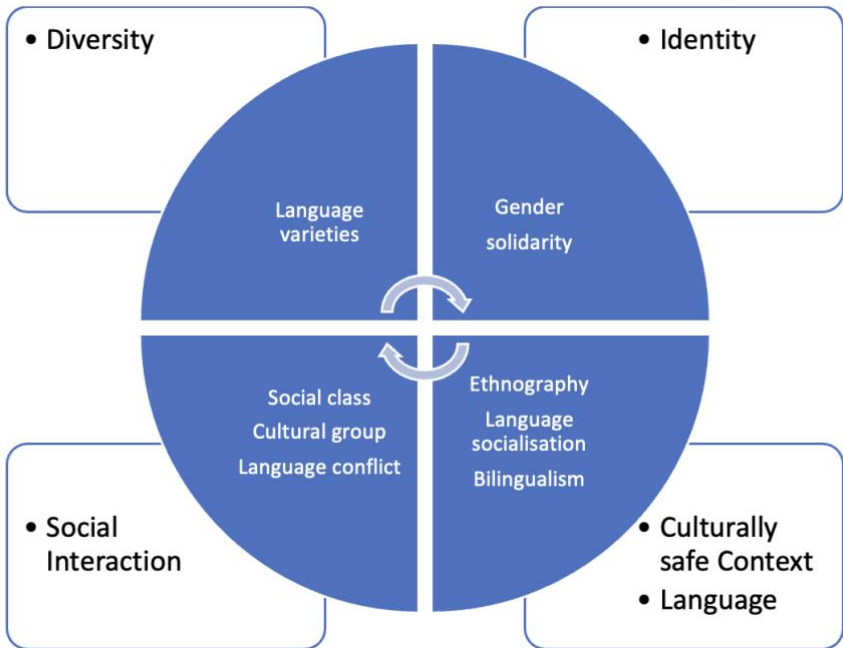
The postgraduate supervisory relationship is not culturally neutral; it is shaped by the supervisor's own epistemological and ontological worldview (Grant, Hackney & Edgar 2014). Many supervisors, often unknowingly, impose traditional academic norms that reflect Western, patriarchal, or elitist ideologies, marginalising students who do not conform to these dominant frameworks. This is especially true for Black women, first-generation scholars, students from rural communities, and those living with disabilities. In this regard, DPT serves as a tool to decolonise supervision by challenging academics to understand diversity not as an optional add-on, but as central to effective pedagogy and mentorship.

In line with Tsotetsi and Omodan (2020), who argue that many postgraduate students experience supervision as a site of intimidation and marginalisation, DPT encourages supervisors to adopt culturally responsive practices that create safe and empowering learning environments. This includes developing supervisory dispositions rooted in empathy, respect, and an awareness of power dynamics. Supervisors must acknowledge that students' gender identities, socio-economic backgrounds, and cultural affiliations significantly influence how they engage with research and respond to academic feedback.

Additionally, DPT is relevant to ongoing efforts in South African higher education to address structural inequalities and promote social justice. The theory aligns with the call by Alabi, Seedat-Khan, and Abdullahi (2019) to dismantle patriarchal and exclusionary academic norms that hinder women's access and success in postgraduate education. By centring students' diverse identities, DPT pushes academics to reframe supervision not just as a transfer

of knowledge but as a dialogical, culturally sensitive, and transformative process.

In summary, DPT provides a robust framework for addressing the power, gender, and cultural challenges inherent in postgraduate supervision. It equips academics with the tools to develop cultural competency, foster inclusive and equitable academic relationships, and ultimately contribute to the transformation of higher education in South Africa. In a system still grappling with the legacies of apartheid and colonialism, DPT offers a way forward where diverse student identities are affirmed, supported, and central to academic success.



The Diversity Pedagogy Theory (DPT) can assist in the following ways:

- Once academics are trained and mentored in actively utilising DPT in class, these culturally inclusive academics will be key agents in promoting cultural diversity and awareness, resulting in tolerance and inclusion of all students on and off campus.

- All stakeholders will be able to use their own epistemic views and work in a diverse environment without limiting diversity to only cultural and racial differences but rather a holistic approach that cuts across accepting one's sexuality, different socio-economic classes and persons living with disability.
- An organisation will be responsible for ensuring that all stakeholders are held accountable for ensuring they engage meaningfully in diversity in line with the diversity policy and culture that must be cultivated amongst all employees in HE and filters down to students.
- HE must customise its diversity management programme in relation to the institution and an assessment of institutional policies regarding these programmes must be done on an annual basis.
- Implement cultural competency initiatives along with diversifying staff and students.

Thematic Data Analysis

This study adopted a qualitative research approach, grounded in the interpretive paradigm. The interpretive lens was used to explore and reflect on the subjective experiences and systemic inequalities that shape postgraduate supervision in South African HEIs, with a particular focus on power, gender, and cultural dynamics. This research is based on secondary data collected through a desk-based literature review of recent scholarly articles, policy documents, and academic reports. The data was analysed using qualitative thematic analysis, to identify patterns and recurring themes across multiple sources. The findings revealed the following:

Theme 1: Power Imbalances in the Supervisory Relationship

Secondary data indicates that power dynamics between supervisors and students remain unequal and hierarchical. Tsotetsi and Omodan (2020) highlight that many postgraduate students experience dehumanisation through the harsh and unsupportive feedback styles of their supervisors. Supervisors often hold epistemic and institutional power that can lead to students feeling marginalised,

silenced, or fearful. Masek (2017) and Cekiso *et al.* 2019) further observe that a lack of supervisor availability and professionalism creates an environment where students are emotionally and academically unsupported. Power asymmetry can hinder the development of a supportive research culture, resulting in high dropout rates, delayed completion, and poor mental well-being among postgraduate students.

Theme 2: Gender Inequality in Postgraduate Education

Gender continues to be a significant barrier to equitable postgraduate supervision. Akala (2018) argues that the apartheid legacy and patriarchal norms submerged Black women's access to quality education. Women, particularly Black women, are underrepresented in higher education and often face subtle forms of discrimination in both access and supervision. Alabi, Seedat-Khan and Abdullahi (2019) stress that even in post-apartheid South Africa, socio-cultural norms continue to hinder women's participation in postgraduate education. Majee and Ress (2020) highlight tensions between redress efforts and the push for internationalisation, which can inadvertently disadvantage local women students. Patriarchal attitudes, caregiving burdens, and gendered role expectations contribute to unequal power dynamics in supervision and place women at a disadvantage in completing their postgraduate studies.

Theme 3: Cultural Alienation and Epistemic Exclusion

Many students, particularly from rural areas or other African countries, experience cultural alienation due to the dominance of Western knowledge systems and English as the language of instruction. Carolissen and Kiguwa (2018) note that Black students often feel alienated by the Western-centric institutional culture and language, which affects their sense of belonging. Majee and Ress (2020) argue that the university's focus on research output and internationalisation often overlooks the need to redress local epistemic injustices. The cultural disconnect between supervisors and students may result in limited academic expression, marginalisation of indigenous knowledge, and internalised academic inferiority, thereby affecting learning outcomes and research quality.

Theme 4: Lack of Culturally Responsive Supervision Practices

The literature suggests that many South African supervisors are not adequately trained in cultural competency. They often reproduce exclusionary practices that do not consider the diverse realities of their students. Sheets (2009) through Diversity Pedagogy Theory (DPT), emphasizes the need for supervisors to recognise cultural patterns and use these insights to inform their academic support strategies. The DPT framework proposes that effective learning environments must be rooted in understanding and valuing the cultural backgrounds of students. Supervision that is culturally blind or neutral contributes to academic alienation and disempowerment, particularly for Black, rural, or international students.

Theme 5: Institutional and Structural Barriers

Although South African universities have introduced transformation policies, there remains a disconnect between policy and implementation, particularly regarding inclusivity in supervision. Ngulube (2021) underlines the importance of supervisors in shaping postgraduate knowledge production and development. Dalton *et al.* (2019) point to the slow implementation of frameworks that support marginalised groups, including students with disabilities. Institutions need more than surface-level transformation. They require structural reforms that address supervisory training, accountability, and inclusive support systems tailored to diverse student needs.

This thematic analysis of secondary qualitative data reveals that postgraduate supervision in South African higher education is deeply shaped by interwoven issues of power, gender, and culture. Power asymmetries between student and supervisor, persistent gender biases, the marginalisation of local epistemologies, and the lack of culturally responsive pedagogy all contribute to inequitable postgraduate experiences.

Addressing these require:

- Supervisory training in cultural competency and gender sensitivity;
- Policy enforcement that holds supervisors accountable;
- The integration of African epistemologies and languages in the academic space; and
- Development of support systems for vulnerable groups including women and students with disabilities.

This reflection calls for a more transformative, decolonised, and inclusive model of postgraduate supervision, where all students regardless of background can thrive academically and professionally.

Discussion and Recommendations

Culture as a Cross-cutting Theme in Student Belonging and Engagement

Culture emerged as a central theme that intersects with religion, language, and identity in shaping student experiences. In South African HEIs, cultural diversity is often present but not fully integrated into pedagogical practice. Students from minority cultural groups often feel alienated, with curricula and supervisory practices not reflecting their lived realities (Vandeyar 2020). To create inclusive spaces, academics must adopt culturally responsive pedagogies that promote student voice and agency. As Mercer-Mapstone and Bovill (2020) suggest, this means positioning students as co-creators of knowledge, rather than passive recipients. This approach enhances student agency and engagement, making them active participants in shaping their educational journey. HEIs should invest in staff training on Diversity Pedagogy Theory (DPT), equipping supervisors to engage compassionately and critically with the cultural identities of their students.

Language and Epistemic Justice

The dominance of English as the primary language of instruction marginalises many African students. As Thomas and Maree (2021) argue, the incorporation of African languages into the postgraduate curriculum is essential for affirming identity and improving academic engagement. Language is not merely a communication tool but a carrier of epistemologies and ways of knowing. Institutions should gradually integrate multilingual approaches and explore bilingual supervision models, particularly in disciplines where indigenous knowledge systems are relevant.

Gender Inequity and the Experience of Marginalised Female Students

Gendered experiences significantly shape the postgraduate journey, especially

for women from underrepresented cultural or ethnic backgrounds. The lived narrative of being an Indian female student navigating exclusion highlights the intersectional barriers faced in academia, including stereotyping, marginalisation, and a lack of recognition. Research by Kumalo (2020) and Callaghan (2020) indicates that patriarchal power structures within postgraduate supervision often result in limited access to academic networks and mentorship for female students. Supervisory teams should be diversified by gender and cultural background, ensuring balanced representation and fostering a more inclusive academic environment. Institutional policies should enforce equitable distribution of supervision loads and mentorship opportunities.

Reimagining Supervision through Ubuntu and Student-centered Approaches

Findings from Tsotetsi and Omodan (2020) and Wood and Louw (2018) advocate for Ubuntu-inspired supervision, which emphasises shared humanity, relational accountability, and co-responsibility. This contrasts with the traditional model where supervision is often hierarchical and driven by individual academic authority. Ubuntu-based models promote mentorship, peer collaboration, and shared reflection, creating a supportive environment where students are encouraged to develop intellectual independence. Institutions should formalise team-based supervision models that promote mentorship, intercultural learning, and co-supervision across race, gender, and disciplines.

Postgraduate Student Support and Development

The sense of isolation frequently experienced by postgraduate students is a recurring theme in the literature (Lebelo 2021). A lack of peer interaction, minimal access to academic communities, and limited exposure to research networks contribute to high dropout rates. To mitigate this, establishing postgraduate peer groups and research clusters has been identified as a potential solution. These groups provide academic and emotional support and foster collaborative scholarship. Faculties should facilitate discipline-based postgraduate communities with opportunities for regular workshops, writing retreats, and peer-reviewed feedback. Orientation programmes should include detailed guidance on the research process, library resources, and academic writing tools.

Supervisor Training and Institutional Accountability

The quality of postgraduate supervision is often compromised by unequal workloads, lack of mentorship for novice supervisors, and unregulated supervisory practices. Albertyn and Bennett (2021) call for ongoing professional development to enhance supervisors' reflective capacity, intellectual humility, and non-directive mentoring skills. Moreover, some senior academics hoard supervision responsibilities, limiting opportunities for emerging scholars to engage in supervision and mentorship. HEIs should establish performance management systems that track supervisory quality and promote horizontal accountability, ensuring that students are not left unsupported. Institutional incentives should reward collaborative supervision and mentorship of junior academics.

In the post-apartheid context, South African higher education must move beyond performative transformation and implement substantive policy reforms that address cultural marginalisation, gender inequality, and power asymmetries in postgraduate supervision. Supervisors must be equipped with cultural competence, emotional intelligence, and a strong commitment to student development. Supervision should be reframed as a collaborative, intercultural, and developmental partnership, grounded in respect, inclusion, and mutual growth. Only through such transformation can postgraduate education become truly accessible, empowering, and just for all.

Conclusion

To achieve meaningful transformation in postgraduate education within South Africa, it is imperative that the voices of postgraduate students especially those from historically marginalised backgrounds are not only heard but are actively integrated into institutional policies and supervisory practices. Students must be seen as co-constructors of knowledge and collaborators in the academic journey, rather than passive recipients of instruction. One critical pathway to achieving this is through the creation of participatory platforms and forums where postgraduate students can openly express the challenges they face, particularly those rooted in power dynamics, gender inequalities, and cultural marginalisation (Mercer-Mapstone & Bovill 2020; Vandeyar 2020).

These platforms should serve as both safe spaces for dialogue and feedback mechanisms that inform institutional reform. Without such engagement, the structural inequalities that persist in supervision relationships will continue to alienate students, contribute to high attrition rates, and undermine the broader

transformation agenda of higher education (Tsotetsi & Omodan 2020).

The plight of marginalised postgraduate students requires urgent attention from policymakers, whose interventions must go beyond surface-level inclusion to tackle systemic issues such as supervisor bias, epistemic injustice, and the often-unchecked power wielded by senior academics (Callaghan 2020; Kumalo 2020). Students from diverse racial, cultural, and gender identities often navigate an academic environment that fails to acknowledge their realities, and as such, policy must be responsive to these differentiated needs (Alabi, Seedat-Khan & Abdullahi 2019; Akala 2018).

Higher education institutions have a critical role to play in designing and institutionalising support systems that address the emotional, academic, and financial burdens of postgraduate study. These include mentoring programmes, inclusive curricula, mental health services, professional development for supervisors, and access to academic networks and conferences (Lebelo 2021; Albertyn & Bennet 2021). Such systems are not add-ons but essential infrastructure for postgraduate success and retention.

Furthermore, system-wide strategies are needed to dismantle the entrenched hierarchies and power imbalances within postgraduate supervision. Supervisors must be held accountable through transparent and structured performance frameworks that prioritise mentorship, equity, and student development (Wood & Louw 2018; Callaghan 2020). Institutions should promote horizontal accountability and collaborative supervisory models that distribute power and responsibility more evenly between student and supervisor (Tsotetsi & Omodan 2020; Kumalo 2020).

Policymakers must ensure that all strategies implemented are aligned with the specific institutional cultures and historical contexts in which postgraduate education occurs. A one-size-fits-all approach will not suffice. Instead, differentiated strategies that reflect the lived realities of students across various institutions rural, urban, historically disadvantaged or privileged must be pursued. As Leisyte, Deem and Tzanakou (2021) suggest, resolving the power imbalance requires deliberate, context-sensitive efforts to reconfigure the supervisor-student relationship into a positive, developmental partnership.

Meaningful transformation in postgraduate supervision can only be realised through a holistic, equity-driven approach that centres student experience, addresses systemic inequalities, and reimagines supervision as a reciprocal, inclusive, and empowering process. It is time for higher education institutions and policymakers to move from rhetoric to concrete action, ensuring that every postgraduate student has the opportunity not just to survive, but to thrive.

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Chapter 6: Ethics and Related Research Considerations for Postgraduate Students in the Humanities and Social Sciences

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Abstract

This chapter reconnoitres the issue of research ethics which is critical since academic research involves a shared and methodical search for new knowledge creation using diverse scientific methods according to prescribed codes of conduct that must be adhered to. In undertaking any research, it is vital to act ethically at all times and observe the ‘Golden Rule’ which states that one ought to ‘Do unto others as you would have them do unto you’. While it is apparent that most people accept that there are indeed some conventional ethical norms they may of course interpret and apply them in different ways based on their individual values and general life experiences. The standards of research must advance the aims of the research that is undertaken, including inter alia truth, knowledge, and the avoidance of malpractices. Research must thus always be undertaken and grounded on methodological norms, such as truthfulness, integrity, accuracy, transparency and accountability, and these are the prerequisites for ethical quality driven and reliable research. Research ethics is essential to apply in order to promote free, dependable, and responsible research. Research and ethics need to be intimately linked since good ethical research practices are non-negotiable. No research strategy for collecting personal data should be unsuitable for required ethical approval unless the possible benefits offset possible harms. Consequently, a researcher’s research design approach must be carefully considered. The researcher must effectively interpret, assess, and apply various research guidelines, make just decisions and act ethically when conducting their research which should essentially be of value since society relies on research as a basis of reliable knowledge. Research ethics pursues justice and is at the heart of the humanities and social sciences.

It concerns what and why one researches and not only how research is conducted. Thus, every researcher has a responsible for behaving ethically and responsibly.

Keywords: Research ethics, justice, guidelines, standards

Introduction

This chapter is envisioned to contribute to developing ethical judgement and reflection, by researchers and promote accountable research, and thus inhibit any type of misconduct. The chapter utilizes a qualitative literature study approach with secondary data sources in the form of academic journal articles, academic books and reports relating to ethical practices in research as well as other sources relevant to the area of research, and by so doing, it hopefully provides a better understanding of research ethics and its importance. It primarily focuses on the interpretivism paradigm and literature analysis.

In South Africa the core guiding principles of ethics on research include respect for human dignity, autonomy, informed consent, vulnerable persons, confidentiality, the principle of harm, maximum benefit, and justice. Generally, concerns relating to informed consent are of specific significance, as required in the Constitution of the Republic of South Africa 1997 (Bill of Rights, Chapter 2). Apart from South African Law, there are a range of other important sources speaking to the notion of ethical research. For example, the UN Declaration of Human Rights and the UN Convention on the Rights of Persons with Disabilities (UN CRPD). In addition, there are numerous policies and commonly accepted declarations that have codified the important principles of research ethics and the ethical treatment of all research participants. For example, the Nuremberg Code of 1947 promoted the notion that any physical and mental suffering and injury in research participants must be totally avoided (Weindling 2001).

The Helsinki Declaration of 1964, and subsequent declarations, are basically statements of ethical principles for medical research involving human subjects, but importantly include research on identifiable human material and data thus calling for anonymity to protect participants. The fundamental principle is respect for the individual and his or her right to self-determination and the right to make an informed decision regarding participation in any research, both to begin with and during the course of the research.

The Belmont Report of 1979 was based on extensive work by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (USA). It identified the basic ethical principles and guidelines that are needed to address ethical issues developing from the conduct of research using human subjects (The Belmont Report 1979). Each of these codes have been initiated in the biomedical field, and they incorporate the central principles that apply to all human research conduct and support the practice that institutional review boards (IRBs) must be established in order to safeguard that subjects of human research are treated with needed respect for persons, beneficence, and also justice.

Research should always be dependably organised and practiced, and research ethics is a tool for this purpose. 'Research is more than just an academic pursuit, but a dynamic force that pervades every aspect of our lives. The power of research to stimulate innovation, disrupt old paradigms, and provide evidence-based insights has resulted in revolutionary discoveries in a variety of sectors' (Islam 2023:2). Research is basically a methodical process of inquiring by a researcher that should lead to the generation of new knowledge, the validation of current knowledge and finding new applications for existing knowledge. In the process, very important social and moral values including one's social responsibility and the promotion of human rights are critical (Amon, Baral, Beyrer & Kass 2012), as are ensuring that the dignity, rights, and well-being of all participants are respected at all times (Australian Government 1999).

Research ethics denotes a diversity of desired values and norms in research and also a range of institutional provisions that are required to found and standardize all research activities.

Institutions have strict guidelines for research ethics, and they state the fundamental norms and values of the wider global research community and must thus be followed explicitly to mitigate unethical practices and conduct. Societal values such as freedom, confidentiality and honesty are to be upheld when dealing with participants and the benefits of conducting a study must be weighed up against the possible costs of harming participants. The researcher needs to obtain informed consent and protect the confidentiality of participants and make certain that none are negatively affected or manipulated (Vancley, Baines & Taylor 2013). When research is carried out ethically this generally assists in preserving the integrity and credibility of the research process and its findings. Different disciplines, institutions of higher learning, and also professions have set standards of expected behaviour aims and goals for

research that is undertaken by them. The standards generally serve to guide researchers to coordinate their procedures and conduct in research activities and this helps to establish public confidence in research that is undertaken. For example, no data should be manipulated, no plagiarism must be present, and there must be a total absence of any transgression that could compromise the quality and reliability of the undertaken research and its ultimate findings and recommendations. All research should conform to the commonly accepted global norms and values. Researchers are obliged to seek the truth and be guided by integrity and also objectivity (Anderson 2011).

Ethical research practices are vital as they safeguard that researchers are conscious of the potential consequences of their research, and they need to endeavour to contribute positively to society through their research endeavours (Carniel & Hickey 2023). When researchers are ethically grounded and orientated in their research practices, this invariably builds trust between them and the general public, and most importantly, the participants are far more likely to be contented and eager to share information, which is required for gathering accurate data. The supposed benefits of any research must never be morally questionable. Researchers need to follow ethical guidelines and adhere to them in order to safeguard compliance with laws and professional codes of conduct (Scott 2004; Douglas 2014). Adhering to ethical norms promotes the aims of research, such as promoting learning, integrity, and avoidance of errors. There must be no fabrication or misrepresentation of findings, neither any rigging of any research data, but always the promotion of the truth. The researcher must thus strive to eliminate or minimize any possible error. The researchers as well as the participants must be safeguarded from legal and ethical violations which could have devastating repercussions (Sivasubramaniam, Dlabolová, Kralikova *et al.* 2021).

Research integrity is non - negotiable and all researchers need to be cognisant of and apply best practices in their professional practice as scientists. All research that is undertaken should strive to promote fairness and justice by safeguarding that the benefits and burdens of their research are distributed equitably. This involves them being mindful of aspects such as avoiding exploitation, power dynamics, and safeguarding that vulnerable populations are not unduly affected by their research activities. In a nutshell, all research must be conducted in an ethical and responsible fashion. There is need for precise, sufficient and relevant knowledge and standards that regulate research and the researcher's relationship with participants and the society in which research is undertaken. These are some of the reasons why institutions are anticipated to

advance ethical guidelines in research that can preserve quality, integrity and transparency as they mitigate possible research misconduct (Flite & Harman 2013).

Professional Ethics

Every researcher has an obligation to seek truth which is implicitly a moral contract that is not negotiable (Brynard & Hanekom 2006). Ethics has diverse approaches but it essentially relates to the desired norms or standards of behaviour that guide the choices researchers make. When considered teleologically, the morality of the means to an end is invariably judged by the ends that are served by research. Thus, the benefits of research are weighed up against the costs of harming those involved in a study (The Belmont Report 1979). This means that the ends that are served may be ethically questionable (Blumberg, Cooper and Schindler 2014). In addition, if the respondents bear any costs and the researcher benefits this also ethically questionable. From a deontological vantage point, the ends never justify the use of means that are indeed questionable from an ethical perspective so deceiving any respondent is unethical conduct. The researcher is expected to seek a fair and just middle - ground between ethical relativism and codes of conduct in research (Blumberg, Cooper & Schindler 2014). However ethical and professional practice is far more than merely having a Code of Conduct for research activities. Baloy *et al.* (2016:6) emphasise that methodological decisions and approaches anticipated by researchers, the manner in which research participants are to be engaged in the conduct arising out of proposed research as well as the implications that extend from the outcomes of the research intervention are all critical considerations. When there is an ethics review it needs to intentionally align with the practical purpose of the appropriateness of a research project and its implications related to institutional processes and procedures.

All researchers need to be led by the principles of integrity and objectivity as they seek truth. This means that high standards must be maintained in the execution of research activity (WHO 2009). Where there are limitations and constraints these must be discussed. Research must be reliable and offer constancy of a measure in other words can the results be reproduced under the same circumstances. The research must also be valid which relates to the accuracy of a measure. The issue here is whether the results are truly representative of what they are presumed to measure (The Belmont Report 1979). There is great intrinsic value in research as a source of innovation and

insight, and it is important and valuable to society. The core set of scientific norms in research ethics have been globally established and institutionalised and truth norm is central to all types of research. This means that all scientific methods must be used in an accountable way (Willison & O'Regan 2007).

Institutions regulate research through norms, and this ensures that it is transparent, open, independent, collective, and critical. Research must be conducted in a way which allows others to have faith and confidence in the methods used and the findings (De Wet 2010). The work of any researcher reflects a research project, the researcher and additionally the institution from which it emanates (Merton 1973). Scientific practices in research must have always veracity and this is not a new aspect. In addition, researchers need to strive to construct solid academic research communities which are characterised by directness and veracity as fundamental ethical and scientific norms are upheld (Resnik 2020; Douglas 2014). Researchers have a collective responsibility for endorsing the values and norms of research ethics in their endeavours including teaching, supervision, dissemination, and publication of research. In addition, lecturers and supervisors have an important responsibility to lead post-graduate students to an enhanced understanding of the need for sound research ethics. In issues relating to research projects, both the institutional autonomy as well as individual academic freedom must be secured. This means that there must be openness in the relations between researchers, supervisors, participants in research and the institution involved.

Key Ethical Considerations and Universal Principles in Research

Informed Consent

At the outset it is critical to state that no individual is obliged to participate in any research. The researcher is duty-bound to explain why human participation in any planned study is required in the first instance. Any individual or a group of participants who consider participating in a research study must have a reasonable possibility of judging whether it is worthwhile taking the time to be involved at all and be making an effort to share information with a researcher (Guillemin & Gillam 2004). All information in a research project must be provided in a neutral manner in order to avert unacceptable pressure. All participants must be informed that their participation is voluntary, and information should be adapted where necessary in order to be comprehensible

to them. They need to be given general information in a language they are comfortable with concerning a proposed project including its intention, the methods to be applied, and all the practical and other consequences of their possible involvement. If need be, an interpreter should be used.

Researchers are obliged to exercise due diligence and demonstrate respect of persons in the research they conduct. They must clearly state their role and responsibilities in their research and in dissemination of the findings. The integrity, human dignity, well-being, safety and interests of participants and communities must always be secured. Any participant must make an informed choice to participate in a study (Oliver 2010). Researchers should thus conduct their research responsibly and be able to validate their methodological selections and evaluations. Researchers are legally required to comply with Chapter 7 of the Protection of Personal Information Act 4 of 2013 (POPI Act). This Act provides some conditions for responsible parties to legally manage the personal information of data subjects (including both natural and juristic persons). From a research vantage point, no researcher should force people to participate in research and the researcher needs to obtain informed consent from any participant to take part in any study. No person should be included against their own will. The objectives of any research and possible consequences and risks should be carefully explained to a participant or a group of participants (Parker, Holt, Turner & Broerse 2003). The researcher needs to provide proof that participants have been provided with needed information relating to a proposed study and have consented by signing a consent document to being involved in a study. Furthermore, they have understood the possible benefits of a study (Oliver 2010).

The research method as well as its purpose, risks and expected benefits, and also a statement offering participants the chance to ask any questions is required (Allen 2008). The participants also need to be aware that they are free to withdraw from a study at any time for whatever reason and need not explain why they are doing so. They also need to be informed that they not going to be induced or incentivised, financially or otherwise, to participate in any manner whatsoever and without any form of duress. Thus, all participants must voluntarily consent to be involved (Anderson 2011). The researcher needs to fully disclose the procedures to be followed in their proposed research design before asking participants to be involved. Once consent has been obtained from participants, the researcher is compelled to adhere to the research process outlined previously. A consent form must be signed for each participant. If a survey is conducted, the respondents need to know who the researcher is (name

and institution) and be given a short description of the topic being surveyed. The purpose of research must be clearly articulated as well as where and who the sponsor may be. The expected duration of the study is important to disclose as is the promise that confidentiality and anonymity are guaranteed. In addition, participation is totally voluntary and that it is acceptable for respondents not to respond to an item in a survey if they do not wish to do so. Finally, their permission must also be provided in writing (Blumberg, Cooper and Schindler 2014).

Researchers ought to also of necessity safeguard the integrity and interests of disadvantaged and vulnerable groups and they should in manner be subjected to exploitation and unethical research practice. Research ethics necessitates protecting the rights of all and the researcher must make certain that a participant has understood the information provided relating to the research conduct (Anderson 2011). When young children or people with mentally disabilities are required to participate, the consent of their legal caregiver is required so that they are not in any way abused. The researcher must always mitigate risks to the participants in any research project. In all research ethical clearance must of course also be provided by a researcher's institution and in writing, before it is commenced (Manti & Licari 2018). All research requires a formal ethical review before any data collection commences. The bottom line is that any and all anticipated consequences of any research should be comprehensively communicated to all individuals and groups that are likely to be affected by it (Brynard & Hanekom 2006).

Beneficence and Non-Maleficence

Research needs to be of benefit to society and must be devoid any possibility of harm. The purpose of all research is thus to ultimately locate new information that is valuable, and it should under no circumstances harm anyone or the environment. One should not pursue knowledge at the expense of other individuals. The benefits for all participants must be maximised and risks minimised. Whatever is considered to be undertaken in a research endeavour must be carefully considered in terms of its potential impact and the welfare of participants is a key point in case. A risk -benefit assessment analysis should be conducted prior to commencing on a research initiative so the benefits are clear and possible harms such as for example inter alia, psychological harm, comprising of safety that may arise are mitigated. Beneficence dictates that researchers must protect all participants from any form of exploitation and treat

all participants honestly and with a kind disposition and above all benevolence. In addition, information presented by participants through their involvement in study must be safeguarded. The researcher should endeavour to maximise the potential benefits of participants in the research process while minimising risks and adverse effects. There must always be informed consent as stated earlier, no deception, the maintaining of privacy which includes the confidentiality and anonymity of all participants. Non-maleficence maintains that no research should be conducted which is likely to cause harm. There must be no physical or mental distress imparted to participants, no complications in funded research, no scientific misconduct or deception, and solid scientific advocacy at all times (Bærøe, Kerasidou, Dunn *et al.* 2022).

Researchers should have no biases, or affiliations linked to a particular stance relating to their study, and especially no prejudices that might guide their study approach. The principle of justice fosters equitable representation in research in fairly distributing the risks and benefits of research. Researchers thus have a need to protect and defend the right of others, prevent possible harm, remove any conditions that are likely to cause maltreatment (CHE 2022).

Non-maleficence relates to the researcher's obligation to prevent causing economic, psycho-social, physical, cultural or any other form of harm to participants. Thus, in conceptualising research one is required to assess and evaluate possible unintended and undesirable consequences of the research that is undertaken. In addition, a researcher should also be exploring and identifying strategies for minimising adverse effects on the participants (CHE 2022).

Respect for Human Dignity is voiced through central principles including free and informed consent and respect for vulnerable individuals which are both echoed in the principle of respect for persons. Having respect for vulnerable individuals is also reflected in the principle of Justice (Steinmann 2016). Réaume (2003) defines dignity as being a moral matter – that is, it is to be treated as an intrinsic aspect of humanity so that people are treated as creatures of intrinsic, incomparable, and permanent worth, as human beings. In essence then dignity must be ascribed to human beings independently of any particular accomplishments or merits they may have. Their worth is not dependent on them being viewed as being useful, attractive, amiable or otherwise serving the ends of others. The upholding of human dignity thus constitutes the central value.

The autonomy of all participants must be considered so that when, for example, there is an individual who lacks the capacity to make an autonomous decision, they ought to be protected against harm (CHE 2022). This includes the

vulnerable, children under the age of consent, and all those who have lost their sense of ability for self-determination due to some or other disability, illness, or conditions that severely constrain their independence to make and take decisions (Bracken-Roche *et al.* 2017; Payne 2000). All ‘... persons are treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being’ (The Belmont Report 1979). When nurturing beneficence in research the well-being of all subjects including those who are vulnerable, younger and older participants must be must secured (Szala-Meneok 2009).

Justice and Respect for Participants

The selection of all research participants should be equitable, meaning that all are treated fairly and equally. All participants in a research project must contribute voluntarily. There must be no discrimination in any shape or form for example, gender, race, social status, disability, nationality or any other characteristics (Bless, Higson-Smith & Kagee 2006). What is also essential is the non-exploitation of vulnerable people. Once again both the benefits and burdens which may arise out of a study need to be carefully interrogated prior to its commencement.

Participants must be treated with the same respect and concern and there should be no manipulation based on a participant’s easy accessibility or abusive power relations. Participants with limited decision-making capability require special attention and must be treated justly in the research (CHE 2022). The autonomy and dignity of all participants must be safeguarded at all times and the researcher is morally obligated to respect this. Participants must have the ability to deliberate about a decision and to act based on that deliberation and thus means giving due respect to a participant’s judgment and safeguarding that he or she is free to decide on an issue without interference (TCPS2 2014). It should also be stressed that indigenous people have collective rights, which must be respected at all times (UN 2007).

Integrity in Research Conduct

Researchers must be capable of trusting and building on the work of others. Society also needs to trust them when they provide their knowledge and demonstrate their scientific expertise. This necessitates that they should provide ethical, responsible, reliable and evidence-based research findings (UKRIO

Research Integrity Office 2024). The research culture should promote integrity, and it applies to all research endeavours and making certain that research environments and systems for research protect and augment moral research practices (De Wet 2010). Research integrity then relates to a range of factors that are fundamental to reliable research practices including honesty, transparency, accountability and rigour in research conduct, courtesy, fairness, care and respect for all participants, and good stewardship when conducting research for others (World Conference on Research Integrity 2010). These are all necessary in order to promote trust and confidence in the research process and its findings and recommendations. There should of necessity be due diligence and rigour and no distortion, falsification, fabrication of data, or plagiarism. All findings must be accurately stated with no manipulation thereof and there should be no conflicts of interest. In addition, any limitations need to be discussed. All research must be undertaken with strict adherence to relevant laws and regulations in all stages of a research process including collecting data, processing it, storing and using it (CHE 2022).

Plagiarism

Plagiarism in research ethics relates to the unethical practice of utilizing another person's work, thoughts, or phrases without properly attributing the work to them. It can take various forms, for example using of ideas, theories, premises, concepts, explanations, designs, illustrations, results etc of others and saying they are yours. There, different types of plagiarism. Global plagiarism which involves plagiarizing a complete text. Verbatim plagiarism involves copying text directly. Paraphrasing plagiarism is when ideas are paraphrased. Patchwork plagiarism is when a researcher links various sources and self-plagiarism when a researcher plagiarizes their own work (Streefkerk 2022). There is also AI-assisted plagiarism when a researcher passes off AI-generated text for example from virtual assistants such as ChatGPT or similar sites, as their own work (Streefkerk 2022).

These are all unacceptable and constitute a significant breach of recognised norms of research ethics. There are various forms of plagiarism (Perkins, Gezgin & Roe 2020). These include inter-alia unethical practices such as a researcher presenting the work of others as their own. Using expressions or concepts of others without attributing correctly or given them credit and failing to use quotation marks when needed. In addition, delivering incorrect information about the origin of a quotation that has been used or modifying the

words while copying the word order of a statement from another source without attributing the words to that source is plagiarism. Authors should never make the work of others look like theirs since this is highly unethical and must be avoided at all costs (Mulenga & Shilongo 2024).

No researcher should ever pass another's ideas off as their own and should cite all sources used. When using any source's exact wording always acknowledge this by putting the extracted information in single quotation marks and provide the source and the page number where it was found (Pelissier 2007). All academic endeavours should be honest and as thorough as possible. Institutions have a responsibility to improve the vetting process to determine if a student's work that is submitted before being approved for a study, is in fact their own. This means that plagiarism checks must be conducted on an ongoing basis. Students are required to generate work in the format that is acceptable for the university standards and the must have at least some basic knowledge of the field they wish to do future work in. They must get a grounding on general research methods and protocols, including the issue of plagiarism and read extensively on what they should and should not be doing.

Naturally, all universities have a duty to uphold stringent standards in research and they need to regularly critically examine their research policies and practices in order to recognise and mitigate possible breaches relating to research ethics. They need to play a key role in support of truly equitable research partnerships that respect the perspectives of all participants involved and meet impartiality requirements (CHE 2022).

Impact of Research

The impact of one's research on society is important to consider. Research is basically what drives humanity towards making needed advances in benefitting society. It is driven by a sense of wonder that makes a researcher ask important questions relating to particular issues, and then spurs them on to answer the questions they immerse themselves in. They learn more about a particular issue for example, towards solving problems in society. All scientific research needs to make some societal impact in a particular field of study. 'It serves as a systematic exploration aimed at uncovering new insights, challenging existing paradigms, and solving complex problems' (Islam 2023:1). Impactful research is thus that which ultimately benefits society and influences decisions on the reaching of desired societal outcomes. It is research that has an important effect on driving needed changes in society or benefits to an economy, the culture,

public policies or services, health, the environment or quality of life outside academia (UK Research and Innovation 2022).

Researching in Other Cultures

A researcher needs to communicate effectively when researching in other cultures. This requires that the researcher discusses the possibility of research with representatives of the culture being studied. For example, if a study is conducted in a rural area of Zululand, it would be necessary to discuss the proposed study with the tribal authority in a particular area. This requires a relatively good knowledge of local traditions and social structures that are prevalent.

Research with cross-cultural participants must never be reflective of any power imbalance that is entrenched in colonialism (Piquemal 2001). When conducting research in a culture that is alien to a researcher, the use of classifications or designations that allow for the making of unnecessary generalisations should be omitted. Ethical implications originate with the power aspects in the research relationship (Marshall & Batten 2004). Cross-cultural research requires careful consideration in order to be effective (Ember & Ember 2009). Researching in or on culturally specified groups, it is essential to respect them and first acquire useful information about the regional context and how social interactions are dealt with in a culture.

Broesch, Crittenden *et al.* (2020) argue that researchers should collaborate with field researchers who have a comparatively established, long-term relationships with communities since individuals with established ties to a particular community may be far more advantageous as guides for locally relevant materials, appropriate ethical and practical guidelines, and in addition they may have useful local contacts needed to prosecute the research. Furthermore, they state that when dealing with cross cultural communities, a researcher needs to reflect on how to effectively engage target communities and be able to design research protocols in culturally sensitive ways that will enable them to address some ethical and other challenges that could arise. Researchers are always responsible for conduct themselves dutifully.

The Supervisor – Student Relationship

Postgraduate study success by a student is predicated first and foremost on the relationship between the student and the supervisor. The world in which we live

is plagued by socioeconomic uncertainty and ever-changing higher education environments. In this milieu postgraduate supervision demands a rigorous, one-on-one academic connection between the supervisor and the student (Adedokun & Oyetunde-Joshua 2024). A student must be totally immersed in their study, but it is ultimately the supervisor who plays a huge role and encourages and enables the student's scholarly development to lead to the ultimate desired success. Research supervisors are presumed to possess relevant expertise when supervising postgraduate students. A harmonious supervisor–student relationship requires supervisors to promote and establish ethically sound education through their mentorship and they need to be caring and understanding towards their students (Keane 2016). The supervisor must be available and flexible, and needs to exhibit the proficiency to promote independence, a strong ethical mindset, and be able to inspire students. The supervisor must be trusted and provide the needed guidance and mentor the student and each needs to be and emotionally tuned in to the other and the study being conducted (Zhang, Wu & Zhang 2024).

Supervisors need to have at least some knowledge of the research area in which a student's study is undertaken, and a good understanding of their duties and responsibilities. They must have the skill to mentor, instruct, and support the student to complete the research study that is undertaken by them leading to the desired postgraduate degree. There is of course never an ideal match between a supervisor and a research student, which means that a great amount of communication between them, and at times negotiation may be needed failing which the interaction between the parties cannot be sustained over the duration of the period of study. A supervisor and a student must strive to work together respectfully. University policies relating to postgraduate study as well as research ethics, intellectual property rights and related aspects must be explained to the student by their supervisor. This means that a supervisor needs to be adequately informed of pertinent policies and regulations so that their postgraduate student complies fully with regulations.

It is the student's responsibility to meet all deadlines that are set by the supervisor and discuss the approach taken and the methodological procedures as advised by the supervisor and the institution in which the research is being conducted (Ren & Hagedorn 2012). They need to treat each other respectfully and the supervisor must never abuse their position in any way based on their perceived power and status. The student's integrity must never be violated, and holistic support must be provided to the student across the turbulent and emotional scholarly and professional academic spheres (Pather 2022;

Adedokun & Oyetunde-Joshua 2024). There is a need for reasonable and agreed upon expectations between the researcher and the supervisor. Such aspects are important to carefully navigate as they play a key role in the improvement of postgraduate quality research. Supervisors are essential go-betweens for students and faculty- student administrative organs, as well as the Head of Department, and Postgraduate and Ethics Committees of an institution.

Supervisors must be understanding of the students' cultural or religious backgrounds and try where possible to support by them in the areas of work-life balance, and economic and social needs where possible. The supervisor is charged with developing a culture of transparent communication with the student and providing useful high-quality comments relating to the work submitted by the student. The supervisor must always strive to assist the student and provide him or her with opportunities to broaden their academic horizons. For example, helping the student to access needed academic resources, and by encouraging the student to attend academic conferences in the relevant disciplinary field as well as institutional seminars on research practices. In cases where the student is not an English language native speaker, the supervisor must ensure that the student is able to access English language support in correcting any language issues which would compromise the student and continuously encourage the student to voice all research concerns during their research journey. Supervisors must thus endeavour to have effective and sound academic interactions with their students' and they have a duty to provide sound guidance on an ongoing basis and provide judicious feedback to students when they encounter problems in a proposed study, offering possible solutions. A key challenge faced by students is the lack of problem-solving skills which are key to academic success. The supervisor must guide the student to think more critically and must carefully monitor the students' outputs and be a caring and research savvy individual and encourage the student to excel, notwithstanding many challenges posed in modern life to both parties (Adedokun & Oyetunde-Joshua 2024). Students generally tend have a preference for supervisors who are not authoritarian but rather willing to help, even when discussing their personal problems. Supervisor should take an active interest in helping the student by finding ways to ensure the student is capable of doing their own work.

The student and supervisor must meet regularly to review the progress made and discuss concerns and expectations. This is critical as feedback to students contributes hugely to their desired academic development. Regular two-way feedback is non-negotiable in a strong collaborative operational atmosphere (Wood & Louw 2018). The supervisor needs to take the time get to

know students and carefully evaluate their needs while working with them so as to establish a strong theoretical edifice and a solid research plan. here a research topic cuts across disciplines, joint supervision may be desirable. At times, such as in inter or trans-disciplinary research, there may be additional supervision required which means there will be one principal supervisor, as well as co-supervisor or maybe even two co-supervisors. It is the duty of the principal supervisor to manage the relationship between the student and the co-supervisor/s.

In order to mitigate abstruseness, there must also be transparent standards and expectations around the roles and responsibilities of supervisors, their students and research committees. Augmented transparency around supervision policies and required procedures and timelines will serve to enable students to proactively oversee their academic progress (Bengtson & McAlpine 2022). Postgraduate students generally feel there is a lack of access to a community of scholars so it would be wise to consider having a Community of Practice (CPO) in which they can be involved and share ideas and gradually build good practices (Netshitangani, Machaisa & Roy 2021). The supervisor must make certain that the student is well trained in research ethics and needs to stress the responsibility and necessity for solid research ethics in all phases of a study. Supervisors need to take part in training on an ongoing basis and develop further skills so that they can augment their supervision activities and supervision style. The level of supervisor motivation is in most cases the highest personal attribute for student success from start to finish of their research study.

Issues such as research ethics in the conduct of a study, later possible co-authorship and data sharing as well as integrity issues all need sound thrashing out. Any possible ethical challenges that may arise in a study must be mitigated. Supervisors also need to develop an open and non-discriminatory culture where there is room for constructive critique, careful ethical deliberation and reasonable academic disagreement relating to a student's submissions. It is also important that students be afforded an opportunity to share their learning experiences with fellow postgraduate students. language and culture may affect the student-supervisor relationship as well as issues concerning knowledge gaps, supervisor attitude and supervisory style. The supervisor's role is to help, maintain and develop the cardinal qualities for student success during the different stages of their research involvement. It is therefore crucial to maintain student motivation and enthusiasm. Where there are at times disagreements with principal supervisors and co-supervisors, these should be dealt with rapidly to keep the student positive and on course for success.

Ethical Considerations Relating to the Use of AI in Postgraduate Research

The growing acceptance of the use of artificial intelligence (AI) among researchers requires careful consideration. It is evident that researchers are making great use of AI in their academic research. It is the case that there is much use of text that has been AI-driven which assist especially budding researchers to craft their manuscripts. In fact, the use of some or other automated reference management system to streamline the citation and references list creation process is a widespread practice in academia nowadays (Dang *et al.* 2022). AI tools are able to generate text that is really close to existing sources, leading to unintentional plagiarism. Students who are not cautious may also become ‘trapped’ and over-reliant on AI, concealing who actually produced their intellectual work.

AI permits scientists to work at a rapid pace by presenting them with instantaneous answers and various insights into their research inquiries. The advanced analytical abilities of AI assist in accelerating to pace at which research is conducted (Ochuba *et al.* 2024). However, there may well be inaccurate, biased, or fully false information. This then misinforms literature reviews, misinform many arguments, and may even prompt methodological errors (Lund & Wang 2023).

Such issues can and do of course present complicated ethical dilemmas that need to be carefully identified by academics if responsible and ethical use of AI is to be undertaken. Interestingly, some academic publishers allow and promote the notion of academics using AI tools (Budhwar *et al.* 2022). It is challenging to determine the very thin line between original individual work and the reuse of ideas from AI sources. This invariably poses intellectual property concerns and also impacts upon the quality and trustworthiness of research conducted as some users of AI may naively accept AI-generated mistakes or untruths as truths.

Sound guidelines are thus required to mitigate the improper use of AI so that the needed lofty standards of ethical scholarly research are maintained in order that integrity and factual exactitude exist in what researchers’ state in their research endeavours (Floridi & Chiriatti 2020).

Conclusion

Ethical practices and other research considerations are essential for supervisors

and postgraduate students to contemplate in their joint initiative. A strong culture of responsibility in research ethics and general research considerations is critically important and must move beyond mere compliance with procedures towards nurturing a shared obligation between a supervisor and student leading to ethical and sound research practices. Students should be supervised and mentored to think more deeply and critically about the ethical aspects of their research and its impact on society. The supervisor and student have a shared responsibility and also need to consider the reputation of the institution in which they are operating as well as their own reputations, and the potential impact of the research being conducted. There is a great need for open communication about ethical issues and sound decision-making. Where there is misconduct, universities may face lawsuits which will undoubtedly damage their reputation and seriously hamper their financial stability in the long term.

The importance of integrity and responsibility in research cannot be overstated. Ethical decision-making in a research endeavour may at times necessitate traversing ‘murky waters’ and contemplating competing values. The important lesson is to always do what is right. Institutions of higher learning must promote initiatives that can help develop critical thinking skills in students that are required when analysing possible ethical challenges. Students need to be taught to evaluate all potential risks and possible benefits. They thus need to make informed decisions and consider the prospective long-term impacts of their research on participants and society in general. Consequently, a wholly compliance-driven approach is dangerous and may lead to a ‘tick-box’ mentality developing in which researchers view the ethics review of their work as a purely procedural requirement rather than viewing it as an opportunity for critical reflection and ethical education. A culture of responsibility in research is of paramount importance which goes beyond mere compliance. Students must also be practically supported as they develop ethical awareness and astuteness and carefully consider all the ethical aspects in their research activities.

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Supervision in Transformation Indaba Challenges

Chapter 7: Successful Supervision of Postgraduate Research: Experiences, Challenges, and Opportunities

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Abstract

Successful supervision of postgraduate research and students is a thorny issue in terms of research quality control, throughput, graduate quality and the employability of the qualifying graduates. Drawing on years of lived experience supervising master's and doctoral candidates, this chapter explores strategies for successful supervision, as well as the key stages, challenges, and opportunities. Discourse and literature review has been applied to support the narrative. Finally, I argue for greater investment in supervision through policy, capacity building, facilities, and awareness to enhance quality graduates, a pressing concern in South Africa. It is acknowledged that, while a lot is being done to achieve postgraduate quality, more investment into the recognised challenges is required to turn them into opportunities. This chapter is expected to improve postgraduate supervision, leading to higher student completion rates, and graduates of higher quality who are more employable. The paper is likely to improve postgraduate supervision at university level in South Africa, and perhaps elsewhere with a similar PG environment.

Keywords: Research, graduate research, postgraduate research, research supervision, post graduate students, South Africa

Introduction

Supervision of postgraduate (PG) research for master's and doctoral qualifications is important for research capacity building and supporting the graduate quality and employability of the qualifying graduates. However, it remains challenging for both the supervisor and the students for several known and unknown

reasons. While students are often blamed for poor performance, quite often the supervisors also bear a significant burden of blame. Successful supervision is a long journey that requires the correct attitude, as well as enough knowledge, skills, experience, and exposure, most of which require time to develop, nurture, and sharpen. In this chapter, I draw from my lived experience of PG supervision at both master's and doctoral levels, discourse and literature review to discuss how to enhance successful supervision. The chapter covers supervision frameworks, stages, requirements, challenges, and opportunities. In conclusion, emphasis is put on investment in PG supervision. This investment includes policy, supervision capacity building, facilities, sustainability, and awareness. Such investment serves to maximise the quality of student success, the completion rate of PG qualifications, and the employability of graduates, as discussed in recent South African studies (Mouton 2017; CHE 2018; CHE 2022; Ocholla 2024). This chapter is expected to improve PG supervision at university level in South Africa or similar academic environments beyond this context.

Frameworks

Frameworks, in this context, refers to guidelines, policies, models and theories that shape postgraduate research supervision. The frameworks are based on research (e.g. Ngulube 2021; Boehe 2016; Mouton 2017; Mouton *et al.* 2015; Cloete, Mouton & Shepard 2015; Garfield 2005), as well as international, national¹, and institutional policies and guidelines. While some of these frameworks can be widely applied, they are normally contextualised with sensitivity to local variations such as institutional policy, type of qualification (master's or doctorate, course work or thesis based), discipline, and stages or phases of research. At the national and institutional levels, frameworks are reflected in policies and legislations. Most universities have postgraduate supervision policies, where the role and responsibilities of both the supervisor and student are articulated. At the national level, legislation on PG supervision is often not articulated but hidden within legislative clauses. However, policies that address the activity of postgraduate supervision do exist, as cited by Cloete, Mouton and Sheppard (2015:101 - 123). Two examples include the Council on Higher Education (CHE 2018) referring to the qualification standard for doctoral degrees, and the Department of Education (DoE) referring to the national qualification framework (DoE 2007).

¹ <https://www.che.ac.za/about-us/legislative-and-policy-mandate>

Supervision models or styles also matter (Ngulube 2021; Boehe 2016, Lee 2014; Van Biblion & De Villers 2013; De Lange *et al.* 2011; Diezel *et al.* 2006; Mouton 2001). Boehe (2017: 400) defines supervisory style as ‘the principles that govern the relationship between supervisor and supervisee in research, be they intended or unintended, explicit or implicit’. In his typology of supervision styles (Boehe 2017: 402) and reflecting on related studies by Grover and Malhotra; Garfield and Wright *et al.*, as well as Murphy and Mainford, these styles can be clustered under dependent and independent, controlled and free, and high versus low support. These categories resonate with popular management styles such as authoritarian, participative, and laissez-faire. For example, the Garfield (2005) structure (low/high support and vice versa) is characterised by styles like laissez-faire (low structure and low support), directional (high structure and low support), contractual (high structure and high support), and pastoral (low structure and high support). Garfield recognises that supervision styles change as supervision progresses. He notes that the contractual supervision style (whereby direction, good management skills and interpersonal relationships are exercised by the supervisor) is predominant.

Most of the cited studies recognise two supervision models: the individualistic or traditional style (often called the British system), and the team or networked style (often named the American system). The *individualistic style* (one-on-one) involves one supervisor, while the *team or pluralistic style* is where a student is supervised by two or more supervisors. While both models have merits and demerits, the individualistic supervision style is still predominant in South Africa and other parts of the world (Mouton *et al.* 2015; Ngulube 2021). Factors that promote this style include policy (which often favours the individualistic model), as well incentives or reward systems where a single supervisor gets more credits, such as funding and recognition, than multiple supervisors. Also control (supervisors often feel ‘territorial’), and convenience play a role. Thus, some supervisors are protective of their research domain or niche and feel more in-control supervising alone. Also, the reward system for PG supervision in South Africa, for example, is still in favour of the traditional or individualistic model (Mouton *et al.* 2015; Ngulube 2021). Ngulube (2021: 257), citing multiple authors, refers to eight conditions which require students to have multiple/ collaborative/ team supervision. These include knowledge sharing from multiple areas of expertise, monitoring and accountability, and multiple levels of support (practical and intellectual). He adds bridging the knowledge gap, enabling communication and oversight, apprenticeship, and

providing a ‘safety net’ to ensure a student does not go without supervision.

Besides the two main supervisory styles, i.e. individual and team supervision, Lee (2012) suggests a further five styles, namely: functional, enculture, emancipatory, relational development, and critical thinking. Mouton et al. (2015: 15), referring to Garfield (2005), describes them as directional, contractual, laissez-faire, and pastoral, as noted earlier.

Garfield (2005), Dietzel *et al.* (2006) and Lessing (2011) view the roles of a supervisor to be advisor, pastor (i.e. counsellor or mentor), quality controller, expert guider, coach broker, apprenticeship, and overseer of their students’ work. A recent study by Ngulube (2021), found the prevalence of the traditional master – apprenticeship epistemology, characterised by solo supervision, at the expense of co-supervision, to be common at his workplace. He strongly recommends team or collaborative supervision because of its merits. My experience with team supervision is that its merits are more evident when its intentions, which focus on sharing of expertise and the benefits of collaboration or partnership for a common good, are at the core of the academic relationship between the parties involved. Such collaboration can be done for the wrong reasons. This may result in opportunism or an unhealthy dependence on a particular supervisor, so creating a general environment of pessimism as opposed to a more optimistic academic experience where there is an emphasis on mutual benefit. Sullivan and Skelcher (2002) discuss this concern in greater detail.

Experiences

My supervision journey is linked with my academic career and, therefore, important in this discourse. My career as a university academic started at a public university in Kenya in 1988, after having graduated with a PhD in Library and Information Science from the former Soviet Union in 1988. I started by supervising final year undergraduate research reports and mini-dissertations (as we did not have postgraduates then), and supervision of PG students for a master’s degree began in 1992, both at Moi University (1992-1995) and the University of Botswana (part of 1995-1996). The supervision of master’s work continued when I joined the University of Zululand in September 1996 as Professor and Head of the Department of Library and Information Science. Later that decade, we admitted PhD students to the department, and I graduated my first PhD in 2002. As of today, I have graduated (some co-supervised with colleagues) several master’s and 33 PhD students, most of whom occupy senior academic positions in public and private universities in 12 African countries,

predominantly South Africa, Nigeria and Kenya. During this time, I examined 67 master's and 130 PhDs for 10 Universities in Africa, largely based in South Africa. My university management positions (Head of Department, Dean, and Deputy Dean) exposed me to teaching and research management, and policy decision-making environments, which enriched my knowledge in the sector. I have also been actively involved in research in my own capacity as a university academic. There are unique experiences that have accumulated from all this exposure. My emphasis and examples in this paper will focus on doctoral research supervision

There are many stages in PG supervision. I identify five stages in the research supervision process. *First*, is the admission of a suitable candidate. Admission of students to a university is often not the supervisor's responsibility. However, at PG level, a suitable supervisor must be identified (guided by academic expertise in the field/domain) by the relevant academic unit, and the supervisor must then agree to accept the responsibility. Proper orientation of the newly admitted student is critical at my own university, the University of Zululand, as reflected in an 'enhancing postgraduate environment'² focusing on orientation on the university website for both supervisors and students. This has proven valuable for both parties. The document focuses on orientation and supervision allocation, starting a PG journey, research proposal development, research, writing and scholarship development, examination and assessment, dissemination and publication and career development. Some of the listed areas are covered in this chapter.

The *second* stage of the research supervision process is research planning or research proposal development, which is essential. This is one of the most important parts of PG research supervision because poor planning leads to a disaster in the execution and success of the research project.

Third is the execution or implementation of the proposed project, which involves data collection, normally achieved through desk, laboratory, or field research. A rigorous research methodology, which would be part of a research proposal, is pivotal for data collection and a quality thesis.

The *fourth* stage is the write-up. While writing a thesis is assumed to occur after the approval of the proposal, it takes place much earlier, at the proposal development stage, and continues until the final thesis is written. Writing a thesis is a daunting task for most students. Sound academic writing skills are essential, and the guidance of the supervisor, with a wide and deep know-

² <https://postgradenvironments.com>

ledge of academic writing, is critical. Workshops on academic writing, which occur at most universities, are valuable in honing these necessary skills in PG students and, in some cases, produce remarkable results. Also, PG students who engage in academic writing and publish academic papers during the thesis development, often sharpen their academic writing skills, thus improving their graduate and thesis quality. Experience shows that co-publication with supervisors (Ocholla 2022) becomes essential to achieving better writing skills.

Fifth, is assessment. This activity is important for quality control and determining the graduate readiness of a PG student (DoE 2007; Mouton 2017; Beardry & Mouton 2018; CHE 2018 2022; Burton *et al.* 2022). Thus, the qualification achieved its objectives by producing the graduate we want (Burton *et al.* 2022) in terms of knowledge, skills, and attitude desirable for the job market and human resource needs of the country. Supervisors are not normally involved in the direct assessment or examination of theses written by their students. The customary practice is that universities appoint thesis examiners, who could be both internal and external or only external (not university staff). The examiners are expected to be dependable, competent, qualified, and knowledgeable in the relevant research domain. The assessment can be based on the examination of the written thesis only or involve both written (thesis) and oral (*viva voce*) examination, particularly for a doctoral thesis. In the world of growing predatory scholarship (Mouton & Valentine 2017), where a thesis can be written by ghost writers or by use of AI, *viva voce* increasingly helps to determine and affirm the candidate's knowledge of the thesis content. *Viva voce* is even more critical in a distance learning academic environment where the quality of a doctoral thesis can easily be compromised due to limited direct contact with students.

The last stage of the postgraduate supervisory relationship is the publication of the thesis. Institutional repositories have become popular platforms for publication of theses and dissertations in many universities. During the assessment of a thesis, examiners are often asked if the thesis is publishable, assumedly, as a thesis quality assessment criterion. Increasingly, universities in Africa encourage, or even demand (e.g., in cases of PhD), that a publication is produced from the thesis before graduation. The student can write the publication singly or co-author with the supervisor and, in such cases, the student is the first author. This trend is becoming popular (Ocholla 2022) for many reasons, including research quality, and increasing the research publication output of a university, which attracts research output subsidies or funding, as in the case of South Africa (DHET 2015). Experience has shown that opti-

mistic or mutually beneficial co-publications involving students and supervisors produce more academic advantages than disadvantages for both parties, as they enjoy the benefits of research collaboration. The requirements for PG supervision are important in this narrative.

Requirements for PG Supervision

The requirements for PG supervision are numerous. I identify four of these requirements as follows.

First, is policy and awareness of the institutional and national research landscape. Research policies have become a norm at universities globally and quite often there are multiple policies – both broad (e.g., university research policy) and narrow or specific (e.g., research ethics policy) in scope. There are also national research policies to consider (e.g., DHET 2015). It is mandatory for PG research supervisors to know research policies to guide the students and manage compliance. Policy awareness can also help with the amendment or revision of policies for sustainability and suitability. For example, with reference to the requirement that master's and PhD students submit (for publication) or publish their research before graduation, such a policy, though essential, may be difficult to implement because it could inconvenience and delay the graduation of the students, so affecting the university throughput rate, which is vital to the success of university education. Unfortunately, lack of knowledge of the university research policies by both the supervisor and the student is not acceptable because of the negative consequences and inconveniences caused.

The *second* requirement includes what I refer to as knowledge, skills, attitude, exposure, and experience (KSAEE). Knowledge refers to academic, professional and subject expertise in the research field (e.g. library and information science, information systems, computer science, quantum physics, etc.). Academic qualifications at PhD level play a key role in achieving the kind of knowledge required for master's and doctorate supervision, as it also equips the supervisor with empathy and the ability to handle tasks based on own experiences. Additional qualifications in PG research supervision, as explained by Lessing (2011), have proven to be valuable for the task as well. There are several universities offering a qualification in PG supervision in South Africa, including the University of KwaZulu Natal, and some of our academics and faculty at the University of Zululand have acquired such qualifications. Some universities have included a PG supervision qualification in its staff promotion requirements. I do believe that such a qualification can also be informally ob-

tained through (obligatory) staff re-skilling workshops.

Skills are linked to knowledge, with an emphasis on practical competency or the ability to perform a task. The common skills required for PG research supervision, are communication skills, computer literacy skills, analytical skills, problem solving skills, emotional intelligence, innovation and creativity skills, research skills, research management skills, strategic thinking skills, scholarly communication skills and self-learning. Most of the skills, particularly those driven by modern technology (e.g. computer literacy, social media, internet, AI, remote communication, mobile technologies), change rapidly. Thus, most recent skills required for supervision are technology driven (e.g. for remote communication, which became popular, even critical, during the COVID-19 pandemic, cf. Ocholla 2021). I also find research and publishing skills critical for PG research.

Equally important is the attitude of the supervisor in relation to the PG research supervision and the student involved. Here we refer to, for example, interest, commitment, reliability, sensitivity, helpfulness, understanding, enthusiasm, involvement, objectivity, and ethics. A positive and supportive attitude to the project and the student is important.

Exposure and experience are inter-connected. Exposure refers to the frequency of interaction with a system, in this context, the frequency of PG supervision, which builds experience. Among the benefits of team or core supervision is apprenticeships, where the experienced supervisor co-supervises with a less experienced supervisor and enables the latter to gain essential supervision knowledge and skills. Co-supervision of this type is often included in the policy on PG supervision by universities. This approach to PG supervision is also expected to develop the next generation of researchers (Beaudry & Mouton 2018) particularly if all parties are on board and share equal responsibility (Grossman & Crowther 2015).

The *third* requirement for PG supervision concerns the library and information services or where and how to get information. To my knowledge, accreditation of universities requires that they have a suitable library to support teaching, learning and research. As a result, university libraries get special attention from university administrators and tend to be well-resourced and managed. They tend to be the best libraries in most countries in Africa, and perhaps elsewhere in the world, particularly where other types of libraries, such as public libraries, are underdeveloped. While there are other competing information sources and services in the world (through the internet and social media platforms), university libraries provide access to multiple information

sources, both in-contact and remote, for staff and students (its members) without additional cost and this increases their popularity. Both students and supervisors can access and use the relatively excellent information resources anytime, anywhere with minimal obstacles. However, maximum access requires information literacy (IL) skills, which most libraries provide through their user education and IL activities and programmes (Ocholla & Ocholla 2020). PG research supervisors should be able to navigate their way easily through the information and knowledge infosphere by being knowledgeable of the information service capacities of their university (e.g. Internet, IT services) and library, and so take the students with them. For example, it is important to know the information services offered, who offers them (e.g. research librarian) and how and when they are offered. Increasingly, libraries offer information services remotely, in digital and open access format, anytime, anywhere, and provide regular information literacy (IL) and library orientation for easy access and success in using their services. It is important for PG students to be registered as library users, access the university library website where they can find suitable links for their information needs, and attend library orientation and IL programmes and activities to boost their information access and user knowledge, all of which are essential for successful thesis writing.

The *fourth* requirement for effective PG supervision is research ethics, which focuses on good or bad behaviour in relation to self (e.g. dishonesty), to others (e.g. plagiarism), and to the environment (e.g. pollution). The three taboos related to unethical research behaviour are plagiarism, falsification, and fabrication, which simply means cheating or stealing. More recently, the three taboos escalated to predatory research, predatory publishing, predatory journals (Mouton & Valentine 2017) books and many more. Ghost writing, including the use of artificial intelligence (AI), is increasing and creating challenges as well. Research ethics is a central concern of knowledge creation and dissemination. Governments, universities, research institutions and other knowledge centres have developed and formulated research ethics policies to protect ethical research and knowledge dissemination. Beyond the universities, research within government and private institutions also requires ethical clearance to protect these institutions from unethical research. Consent to conduct research safeguards institutions, people, animals, and the environment. Postgraduate supervisors must be knowledgeable of research ethics and enforce compliance. They are also required to ensure research quality control (e.g. content, writing, editing, citations) where the three taboos often prevail. PG students' awareness of research ethics requires research supervisor involvement

(Lessing 2011), which includes guidance, oversight, understanding, providing role models, attendance of regular workshops, and familiarising the student with visible websites where ethics related information is provided by the institution.

Lastly, an effective supervisor must be aware of the examination requirements (Mutula & Majinge 2017; Ocholla 2024). Universities have postgraduate assessment policies and guidelines, some of which outline the examination requirements in detail through assessment forms. In some cases, such forms look like a marking scheme covering all aspects of thesis examination (e.g. introduction, problem statement and research purpose, methodology, theoretical framework and literature review, research findings, discussions, conclusions and recommendations, formatting, including size of thesis, readability/ editing etc.). Although the supervisor is better placed to access the assessment guidelines, increasingly the guidelines are posted on open spaces, such as university research websites, for easy access to all parties involved. Knowledge of the assessment guidelines enables both the supervisor and the PG student to be familiar with the expectations for a good thesis and so improve the quality thereof.

Challenges and Opportunities

Challenges and opportunities are two sides of the same coin and must be confronted as such.

Key Challenges

Among the challenges, I note research policy (e.g. scope and relevance), lack of supervision knowledge, skills, attitude, experience and exposure (KSAEE), requiring research supervision development and support, digital literacy and transformation (effective access and use of information digitally or remotely). Also, requisite research investment (e.g. resources and infrastructure), research capacity building (e.g. development of the next generation of supervisors), handling research ethics (e.g. policy), achieving the desired academic knowledge expressed in the outcomes for a qualification level, as well as master's and doctoral throughput, which is low in South Africa. In addition, sustainability and effective planning also matter. Some of these factors have been identified by Mouton *et al.* (2015) with reference to doctoral supervision, as well as the Council of Higher Education. For example, Mouton *et al.* (2015) identify the challenge of coping with student numbers, which can be

exacerbated when one supervisor is supervising both master's and doctoral students at the same time. They add, monitoring and accountability to institution and government, throughput and level of success, student quality (gaps in the screening process, particularly where the supervisor role is minimal), and the nature of supervision, i.e. in contact and remote (the latter being quite common in doctoral studies in South Africa), as well as the funding framework.

The Council for Higher Education (2009)³ identified six major factors affecting completion of post graduate studies in South African universities. Among them were poor planning and management, methodological difficulties, writing-up, isolation, personal problems outside research, and inadequate or negligent supervision. These factors still affect postgraduate supervision, despite interventions by stakeholders, such as universities, to prevent them. For example, planning and management of PG research at institutional levels is supported by research administration structures, policy, and resources (e.g. library and internet connectivity). Access to relevant research information and knowledge (such as research methodology) through the library, internet access and knowledge platforms, such as seminars, webinars, workshops and conferences, are becoming the norm at universities where PG qualifications are being offered. Master's and doctoral research and write-up often occur in isolation. The experiences of COVID-19 (Ocholla 2021) referred to isolation and increased our understanding of its manifestation beyond a personal level. While the personal problems of the students play a critical role in PG research supervision, inadequate supervision, a heavy teaching load, limited supervision capacity, and the personal problems of supervisors (e.g. KSAEE) play a key role too. There has also been a concern whether South African doctoral qualifications are producing the thinkers the country needs in terms of the academic and intellectual depth required at that level (Mouton 2017; Burton *et al.* 2022).

Emerging Opportunities

While challenges like low throughput and supervision gaps persist (CHE 2009), opportunities such as digital libraries and the fourth industrial revolution (4IR) technologies offer pathways to mitigation. Opportunities exist alongside the challenges.

3

https://www.che.ac.za/sites/default/files/publications/CHE_MonitorProjectV7.pdf

First, research guidelines and policies are being developed at both national and institutional levels to support and increase research. Besides new policies addressing specific research areas, existing policies tend to be revised to keep pace with time. While this is an opportunity, implementation of the policies is still a challenge. Also, quick response to technology driven research policy needs in the fourth industrial revolution(4IR), such as artificial intelligence (AI) and block chain computing, are still lacking in higher education institutions (HEIs).

Second, is research capacity building through both formal and informal education (e.g. conferences, seminars and workshops). Most research takes place at universities and research councils, which are constituted by government legislation to develop and disseminate research. Research capacity building through formal PG qualifications at master's and doctoral levels is the main driver towards this goal in most countries. Promotion of academic staff through 'publish or perish' has contributed to research capacity as well. Besides those two, in South Africa, the promotion of quality research output by policy (DoE 2015) has played a key role in supporting quality research dissemination. Also, the NRF rating⁴ system, designed to produce and promote a 'globally competitive Science system in South Africa' through the evaluation of research quality and impact, has been a major enabler and supporter of research capacity building in the country. While there are specific initiatives towards research capacity building covered in this chapter, the highlighted areas are important.

Third, access to information and knowledge, e.g. digital library services, which enable access in-contact or remotely anytime and anywhere (Ocholla & Ocholla 2020), is important for PG research support. As noted already, academic libraries in most HEIs offer spaces for such support and therefore must be fully exploited by the PG students and their supervisors.

Fourth, is the fourth industrial revolution(4IR) mindset, which is emerging and growing and, thereby, increasing opportunity for engagement with new technologies for scientific communication. The open science move-ment (making scientific work openly available and accessible to everyone) is one of the gateways for improved access to knowledge. Other areas of concern in terms of knowledge access include sustainability, enabled by staff retention policies in institutions, and research publications enabling knowledge retention and development.

⁴ <https://www.nrf.ac.za/rating/>

In a nutshell, government research support, such as by policy and legislation, career growth through quality academic publications, research output through a publication reward system and NRF rating system in South Africa, academic library services and increased access and use of technology for scholarly communication, all offer opportunities for PG supervision quality. They need attention and further development for better service to research in the country.

Conclusions

It is recognised that successful postgraduate (PG) supervision is complex and challenging for both students and supervisors (Burton *et al.* 2022). Increasingly, quality graduates and employability of a PG student determine quality education. Several observations can be made from this chapter.

1. *Experienced and quality supervisors take a long time to nurture and develop.* While their qualifications matter, sufficient exposure to PG research supervision for novice and potential supervisors must be created early in the academic career – it can begin with supervision at final year/honours level and escalated to master's and doctoral levels where possible. Experience gained from such interaction provides a foundation from which to build quality research supervision capacity. There is evidence that PG supervision capacity can also be achieved through both formal PG supervision qualifications as well as informal methods, such as through apprenticeship (e.g. co-supervision with established supervisors), seminars and workshops.

2. *Frameworks (see DoE 2007; CHE 2018) are important for guiding PG supervision, therefore they must be accessible and used for the supervision process.* Also, there are several successful PG supervision models (Boehe 2016; Garfield 2005) discussed in the literature. Supervisors often use them unwittingly, but they should be applied knowingly for effectiveness. While supervision models cannot be applied uniformly at different levels of qualification (e.g. doctorate and master's) or stages of supervision, or even by discipline, the supervision models that encourage independence, rather than dependence, of the supervisee are more rewarding in the long term. In addition, while team or co-supervision has many advantages if applied rationally, individualistic supervision seems to prevail in most cases (Ngulube 2011). This is due to many factors such as policy (more rewarding, incentives), and egoism

(‘territorial’, expertise i.e. narrow field).

3. *Knowledge of the supervisor roles (Lessing 2011) are vital to increase success.* Such roles also depend on the level of PG qualification.

4. *There are several requirements for successful PG supervision.* Appropriate knowledge, skills, attitude, exposure and experience is important. However, they must be backed by the right academic qualification, suitable academic research environment, policy, and supervision capacity building. Further, knowledge of the PG academic landscape is critical for a supervisor, just as a good coach must know the game. Thus, the stages and requirements for supervision matter and should be applied effectively but rationally.

5. *Most of the cited studies reflect on the challenges of PG supervision rather than opportunities.* The common challenge is the quality of the supervisor and supervisee (Mouton 2017). Successful PG supervision needs to exploit the challenges and opportunities mentioned in the previous section with the aim of transforming challenges into opportunities, bearing in mind that the two often overlap. Just like challenges, opportunities for PG supervision exist and they are not uniform among higher education institutions / universities. All institutions have a minimum qualification for PG supervision, research policies, which focus on researchers’ students, resources, capacity building, research investment, incentives, PG supervision, and research management structures (e.g. vice chancellor for research, research director, research committees for research coordination and quality control, and PG research capacity building). Attention given to quality research is encouraging in most cases.

6. *Research support, reasonable supervisor workload sustainability, and futurism (i.e., the 4IR mindset [Ocholla 2021) remain crucial.* There is evidence that supporting quality PG education and research in higher education is largely positive. The pressure of producing quality graduates, throughput, academic career growth, transformation, efficiency, and administrative and teaching burdens (Cloete *et al.* 2015) requires attention and management.

I recommend considering these conclusions as agenda for successful PG supervision, turning the challenges into opportunities and exploring more opportunities based on best practice in the sector, within and outside the country.

This chapter reflects on PG supervision discourse and the author's many years of PG supervision experience, which is likely to add value to the on-going debate and developments in the domain of supervision improvement. Both PG supervisors, PG students and PG administrators would benefit from the chapter. It can also benefit research, teaching and learning, as well as comparative studies. The limitations of the chapter, particularly the bias attributed to this author's experiential knowledge, selection of the reviewed papers, and South African content, should be taken into consideration by the readers.

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Chapter 8: University Research Supervisors' Responses to Generative AI in the Context of Institutional Policy Lag

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Abstract

Universities worldwide are grappling with the rapid rise of generative artificial intelligence (GAI) and its implications for knowledge production, research ethics, and supervision practices. In South Africa, this debate is shaped by unique contextual factors such as the digital divide, institutional policy lag, and ongoing struggles for decolonisation in higher education. This paper reports on a qualitative study of thirty research supervisors at a research-led South African university, exploring their dispositions towards the use of AI in master's and doctoral supervision. Drawing on the Unified Theory of Acceptance and Use of Technology (UTAUT), the findings highlight a continuum of perspectives, from enthusiastic adoption to cautious resistance. Supervisors recognised GAI's potential to streamline proposal development, literature reviews, and data analysis, while raising concerns about authorship, accountability, and the risk of eroding critical thinking. Beyond plagiarism, supervisors and the literature emphasise broader ethical risks including epistemic injustice, ownership of ideas, bias, and institutional responsibility. The study also situates South Africa within wider African and global debates, underscoring the need for contextually sensitive policies that balance innovation with academic integrity. By foregrounding African higher education realities and the ethical and institutional policy dimensions of AI use, this paper contributes to emerging scholarship on how research supervision is being reshaped by technological innovation in the Global South.

Introduction

In the relatively short period of time that free and relatively cheap Generative Artificial Intelligence (GAI) has become available to the general public, it has dramatically altered many aspects of social, economic and academic practices. As with any new technological development, especially radical innovations like GAI applications, such innovations receive mixed reception. In the multifaceted world of academia, GAI presents extraordinary opportunities to review and reconsider traditional academic practices while simultaneously challenging and testing the adaptability and robustness of existing university policies and processes. As can be expected, universities, depending on their relative size and extent of bureaucracy, were likely to respond differently to both the affordances of GAI and the threats that it presents to the enterprise of the university. At higher education institutions where research is an important pillar of the institution's mandate, this aspect of university work, namely research and scholarship, has been thrown into disarray as it relates to, amongst other key credibility factors, the issue of irresponsible and unethical use of GAI by research students. The role of research supervisors (promoters) has undoubtedly been complicated and complexified. While exploratory research indicates that university academics acknowledge the permanence of GAI in the academic arena, they indicate the need for regulatory frameworks. The extent of research supervisors' engagement with GAI and how they make sense of this liminal space that they now find themselves in is a relatively unexplored area. There is little contention that there might be negative consequences associated with developing policy frameworks for GAI regulation that are not grounded in empirical research. If anything, the sudden proliferation of anecdotally-inspired GAI workshops is indeed a cause for concern as misguided technophiles uncritically embark on advocacy projects for the use of GAI.

In the context of the research problem described above, this chapter reports on a study that addressed the following research question:

What are university academics' research supervision dispositions about the use of AI in Master's and doctoral supervision?

Theoretically, the paper draws on the Unified Theory of Acceptance and Use of Technology (UTAUT), which offers useful conceptual heuristics such as performance expectancy, effort expectancy, social influence and facilitating conditions. As such, they provide a conceptual framework for understanding partici-

pants' dispositions. The study sample comprised thirty university research supervisors and was drawn from a research-led university in South Africa. At the time that this study was conceptualized, the effects of free and relatively inexpensive GAI triggered widespread concern (and general apathy in some instances) amongst university academics, with some university departments actively working towards creating platforms (workshops, seminars, mini-conferences) on GAI and its likely influence on the traditional work of academia. What was clear was that much uncertainty was likely to prevail in the context of delayed university policy responses. At the time of writing this current article, the institution under study did, in fact, release a policy on GAI use. This artefact (university policy on GAI) is certainly an object that demands attention for research, given common issues with higher education policy in terms of articulation with existing policy and lack of specificity.

Given the rapid emergence of GAI and its integration into academic workflows, the tension between innovation and regulation becomes increasingly apparent. While some scholars champion the potential of GAI to democratise knowledge production and enhance research efficiency, others raise concerns about the erosion of academic integrity, the authenticity of scholarly contributions, and the unintended consequences of AI-driven research outputs. Unwarranted moral outcry is a finding of a recent study across five universities in South Africa (Bosch & Uzuegbunam 2023), which suggests that the South African academia might, in fact, be over-reacting, which suggests that much angst and uncertainty prevail in the South African higher education context. These debates underscore the necessity for empirical investigations that move beyond anecdotal reactions to offer evidence-based insights into how research supervisors navigate this evolving landscape. Understanding their attitudes, concerns, and adaptive strategies is critical for informing institutional policies and shaping pedagogical approaches that foster responsible AI use in post-graduate research supervision.

A Brief Overview of the Literature Field

Since the advent of free (and relatively cost-efficient) GAI and its integration into various aspects of education, there has been a proliferation of research studies on this phenomenon. Research into how university library services to researchers might affect the work of traditional libraries reveals that there is an acknowledgement that GAI has, in fact, enabled students' ability to access and leverage library facilities. In the early stages of research project conceptualisa-

tion, GAI has much potential to facilitate effective and efficient brain-storming and research proposal development (Ganguly, Johri, Ali & McDonald 2025).

With the rapid evolution of AI, postgraduate research supervision is likely to be significantly impacted. Early research in the field of graduate research supervision indicates that GAI has much potential for enabling the doctoral project. Dai *et al.* in their study of Lee's five dimensions of research supervision (Lee 2008), namely, functional, enculturation, critical thinking, emancipation and relationship development, assert that '(s)upervisors, traditionally tasked with guiding students through both the technical and complex facets of their research, shifted towards a more mentorship-based role ... students could independently tackle entry-level, technical research tasks ... expectation for supervisors was inclined to higher-level, strategic guidance'. Early literature reviews on this phenomenon indicate that in the main, studies are pointing to the efficiency of the research process that might come from engaging GAI with the scholars also cautioning about degeneration into dependency and the underdevelopment of critical cognitive capacities. There is a growing faith in GAI's ability to have a significant impact on academic writing and research (Khalifa & Albadawy 2024) as well as its effectiveness in data coding (Pattyn 2024; Tang *et al.* 2024) and general data analysis.

There is, however, growing concern about GAI's ethical use in the academic environment especially around issues of the actual ownership of scholarship, and declarations of GAI's use as well as the ineffectiveness of plagiarism software to distinguish original student writing from copy and paste practices and human-like lexical sequencing. Ganguly *et al.* (2025) in their study of policy guidelines offered by research-intensive universities in the United States, found that policy guidelines encourage academics to take full responsibility for both their and their students' use of GAI, to become knowledgeable about the requirements of external funding agencies, academic journals and publishers as well as self-educating about the ethical dilemmas of GAI usage and acceptable disclosure. It is becoming increasingly evident that research supervisors at universities run the legal risk of unwitting neglect if they remain ignorant about the ethicality of their students' research projects.

Several structural and contextual features of higher education in South Africa – and the African region more broadly – shape how generative AI (GAI) is perceived and adopted.

First, the persistent digital divide across institutions and student populations affects access to AI tools and therefore moderates adoption: historically disadvantaged institutions and rural campuses report lower levels of

infrastructure, bandwidth and institutional readiness, which constrains both student and supervisor uptake (Aruleba 2022).

Second, South African universities operate within a policy and regulatory environment that is simultaneously shaped by national quality assurance bodies and locally negotiated institutional procedures; this layered governance influences the pace and specificity of AI policy responses (Corrigan 2023).

Third, distinct epistemic and curricular priorities in the Global South – including emphasis on decolonising curricula and protecting local knowledge systems – create particular sensitivities around externally developed AI models trained on predominantly Global North data, raising concerns about relevance and representational fairness when AI tools are used in supervision and literature synthesis (Nakatumba-Nabende 2023; UNESCO 2021).

Finally, grassroots and pan-African technical initiatives (for example community-led NLP efforts) demonstrate both the potential for locally-grounded AI solutions and the importance of contextualised capacity building to support equitable AI uptake across African universities.

These structural conditions together mean that findings from a single South African research-led university must be read with attention to uneven infrastructural readiness, institutional governance differences, and epistemic justice debates shaping AI adoption across the continent. Incorporating these situational variables helps explain the heterogeneity of supervisor dispositions observed in our study and points to policy and capacity levers that institutions can target to reduce inequitable adoption.

While the brief overview of scholarship cited above points to the enormous potential of GAI to positively influence the critical work of research supervision as well as signalling threats that might present in the academic environment, scholars in the field encourage further exploratory research on this phenomenon, recognising that different university human and physical resources might present with different opportunities and challenges.

In the section that follows, a brief account of the UTAUT framework is presented.

Theoretical and Conceptual Framework

The unified theory of acceptance and use of technology framework as a theoretical foundation

Research on the adoption of technological innovations by human beings

is well-documented, with various scholars offering partial frameworks for understanding how this phenomenon occurs in society. Venkatesh *et al.* (2016), in their seminal work in this field, harnessed the strengths of scholarship in the field of technology acceptance to develop the Unified Theory of Acceptance and Use of Technology (UTAUT). This framework was employed in this research study on research supervisors' responses to GAI. As The framework is robust as it offers a rigorous and structured conceptual protocol to analyse how research supervisors respond to Gai

The UTAUT framework offers four primary conceptual device heuristics: performance *expectancy*, *effort expectancy*, *social influence*, and *facilitating conditions*. These theoretical concepts have been widely applied (almost 60,000 citations).

1. **Performance expectancy:** In the context of research supervision, performance expectancy considers research supervisors' beliefs that GAI applications might enhance the research supervision process, fast-track research learning and reduce research supervisor workload.
2. **Effort expectancy:** If users of GAI are inclined to believe that GAI usage is easy to learn and use, then this increases the likelihood of its adoption in research supervision. Research supervisors are likely to embrace GAI's potential if it is easily accessible within their zone of proximal development, and acquiring skills to apply GAI is not likely to require much exertion and application beyond what the individual deems manageable.
3. **Social influence:** This construct refers to how individuals might be inspired by observing influential agents adopt and use GAI. These social agents might include peers, managers and leaders and positive institutional declarations of the value of GAI for research supervision. As such, social influence is a crucial determining factor of individuals' disposition towards GAI in research supervision.
4. **Facilitating conditions:** In contexts where enabling and scaffolded support exist for learning how to use GAI, the readiness of research supervisors to embrace GAI is likely to be much greater. Such support extends to the availability of technical infrastructure (including the internet) and digital artefacts, including computers (Abbad 2021).

UTAUT also identifies demographic and contextual variables – gender, age, experience, and voluntariness of use – as moderating factors in technology adoption. While the current study does not focus on these variables in depth, they are noted as potentially influential for understanding variations in acceptance across different student and faculty groups, warranting further research.

UTAUT is particularly relevant for this study because it can encapsulate the complex interplay between human factors and technology acceptance. As AI tools increasingly automate assessment tasks, assessing how users receive these tools within the unique context of education becomes essential. Given the rapid advancements in generative AI and their adoption in educational settings, UTAUT provides a structured approach to examining both the advantages and limitations of AI-generated tools. For instance, while tools like ChatGPT and Copilot offer benefits in terms of scalability and responsiveness in assessment, they also present challenges such as ethical considerations, potential biases, and the risk of over-reliance on technology for feedback.

The use of UTAUT in this study foregrounds the factors influencing user acceptance of AI tools. It highlights the impact of these tools on educational practices, enriching the understanding of how AI can reshape assessment and feedback in higher education. The integration of UTAUT into this study allows for a nuanced exploration of how institutional culture and disciplinary norms shape research supervisors' engagement with GAI. While the framework traditionally emphasizes individual-level acceptance factors, its application in this context extends to broader systemic and structural considerations, such as the role of institutional policies, academic traditions, and disciplinary epistemologies in moderating AI adoption. Research supervision is inherently a relational and iterative process, and the introduction of AI-driven tools necessitates a critical reflection on how these technologies align with, disrupt, or transform existing academic mentorship paradigms. By leveraging UTAUT, this study not only assesses the likelihood of AI adoption in postgraduate supervision but also interrogates the deeper pedagogical and epistemological shifts that such adoption may entail.

Research Methodology

Paradigmatically, this study is located in the Interpretive framework. As such, it moves from the premise that there are multiple realities at play that are subjective, complex, and context-dependent. A qualitative approach was

adopted in an effort to capture rich, context-specific insights into university academics' responses to generative AI's impact on their research supervision practices (Cohen *et al.* 2017). Ethical clearance was obtained from the University of KwaZulu-Natal (UKZN) under protocol number HSSREC/00005732/2023.

Purposive sampling was employed to select a targeted group of academics from the College of Law and Management Studies and the College of Humanities at UKZN. These participants were selected on the basis of their disciplinary diversity and the range of perspectives they might offer on how GAI impacts their work as research supervisors. Data were collected through a qualitative online open-ended schedule administered via Google Forms. The choice of Google Forms allowed for accessible and convenient participation, ensuring data security while preserving anonymity. Participation was entirely voluntary and with informed consent and anonymity protocols duly followed. The value of this data collection technique was that it allowed these volunteer university academics an opportunity to carefully consider their responses and capture them at their own pace and with the level of comprehensiveness that they wanted to give to each open-ended question. The online schedule link was shared directly with participants via university email, providing easy access while allowing participants to respond at their convenience within a 3-week period. It comprised 29 questions: nine focused on demographic information, and 20 aimed to elicit reflective, qualitative responses regarding the impact of AI-generated tools on curriculum, pedagogy and research supervision practices.

Before the main data collection undertaking, the schedule of open-ended questions was piloted with two academics to refine question clarity, flow, and relevance. This pilot stage helped ensure that prompts were clear and encouraged meaningful reflection aligned with the study's aims.

The responses of 29 participants were recorded anonymously and exported from Google Forms into Excel for organisation and preparation before being imported into NVivo (Version 12). NVivo was selected for its robust capacity to systematically manage and analyse large amounts of qualitative data. Using NVivo allowed for efficient coding and theme identification, enabling a structured and reproducible analysis process that could ensure consistency and depth in theme development.

Coding was conducted iteratively, utilising both deductive and inductive approaches. The deductive approach was informed by established literature on AI in education, while inductive coding allowed for emergent themes specific to participants' experiences and perspectives. This dual

approach enabled the identification of both anticipated and novel themes, enhancing the comprehensiveness of the analysis (Clarke *et al.* 2015).

Data were analysed through iterative coding cycles to ensure trustworthiness, and themes were refined collaboratively to reduce bias. Following initial coding, participant validation was sought by providing participants with extracts of their responses to verify accuracy and ensure that interpretations aligned with their intended meaning. This participant validation process reinforced the credibility of the findings by involving participants in the interpretive process, thereby enhancing the study's rigour and reliability.

Reflexivity was embedded throughout the research process to acknowledge and mitigate potential researcher biases. Given the interpretive paradigm's emphasis on subjectivity and meaning-making, the research team engaged in continuous reflection on how their own perspectives and experiences with AI in academia might influence data interpretation. This reflexive practice included maintaining analytic memos during coding, discussing emerging insights in collaborative research meetings, and critically interrogating assumptions underlying theme development. Such reflexivity not only enhanced the trustworthiness of the findings but also ensured that the study remained grounded in participants' authentic experiences rather than the researcher's preconceived notions.

In NVivo, thematic analysis was carried out by organising coded data into broader categories, and patterns across participants' responses were examined to formulate themes. This computer-assisted analysis facilitated the handling of substantial qualitative data, allowing for a more efficient and systematic theme development process than manual coding. NVivo's search, coding, and categorisation tools supported the refinement of themes and subthemes, ensuring a structured, transparent analysis that bolstered the interpretive depth of the study. The methodology employed aligns with the study's aim to explore nuanced academic responses to AI in education, producing data-rich insights to inform future research and practice.

Key Findings

Several key issues emerged from the data. Some participants indicated that AI language models like ChatGPT can be invaluable in research proposal development. They believed the application might be used to identify and select relevant theoretical and conceptual frameworks and choose a methodological approach in proposal development. Other participants reported that ChatGPT

can be helpful in the literature review section of a proposal by offering guides on how to analyse research data and reference information in a thesis. Furthermore, there was a sentiment that GAI can aid students in identifying the authoritative sources in their area of research and offer the core reading list they require.

Cautious Acknowledgement that GAI can Help Clear the Forest and Expedite Research Proposal Development

Pinpointing a robust research topic during proposal development is acknowledged as a formidable challenge many students face. Consequently, AI language models, including ChatGPT, are posited to play an invaluable role in this regard, as articulated by Participant #16.

Identifying a robust research topic in proposal development is a challenge most students face. This is where AI language models like ChatGPT can play invaluable roles.

Students sometimes struggle with honing in on a specific topic – AI can generate various research questions based on an initial idea. It can provide good leads regarding the main theoretical ideas, but all these need to be checked and verified. It is a bit less adept with methodology ideas, but it can be a decent starting point, too.

This participant contended that AI could generate diverse research questions based on a researcher's initial idea and might provide leads concerning key theoretical concepts. However, it is emphasised that these AI-generated suggestions necessitate thorough scrutiny and verification. While ChatGPT is deemed less proficient in suggesting methodological ideas, it is acknowledged as a viable starting point.

Despite the recognised utility of ChatGPT, a divergence of perspectives emerged among other participants. Participant #20 acknowledged the utility of ChatGPT for staff and students in proposal development yet confessed to limited personal use and consequent uncertainty regarding its application in research proposal development. Similarly, Participant #17, citing a lack of familiarity with its potential and challenges, was highly reluctant to endorse its use.

Some participants also expressed reservations about the incorporation of ChatGPT in proposal development. Participant #15 posited that while ChatGPT can provide a template for developing a research proposal, students must engage in human cognitive processes for lateral thinking.

Participant #10 asserted that students should refrain from its use and contended that reliance on ChatGPT may inaccurately represent students' capabilities, suggesting its use solely for tasks such as grammar checks. Participant #4 was vehemently against the idea of using GAI in proposal development, attributing its limited efficacy to producing very basic outputs. They believed that GAI could not discern research gaps and areas warranting future exploration.

GAI is a Blessing for Conducting Literature Reviews

Participants identified different ways that GAI might be used for literature reviews. These include identifying key themes and examples in the literature, selecting relevant topics, searching for relevant literature, enhancing citation accuracy, generating reading lists, providing structure for literature review, structuring research questions/objectives, and identifying key trends on a given topic. It was also noted that ChatGPT can help researchers identify the authoritative sources and the gaps in the chosen field. Participant #26, for instance, reported that ChatGPT can be used,

... to guide students, analyse the results and identify the gaps or limitations in the current knowledge. The Participant further noted that the application could be used "to guide students refine their topic or question based on the gaps and generate new keywords or phrases using ChatGPT and in shaping/rewording their research questions and research objectives appropriately (Participant #26).

Participants who had experimented with different GAI applications were able to draw comparisons as to their relative effectiveness, indicating that some platforms were more effective than others. For respondent #3, for instance, elicit.com was viewed as more effective in abstract summaries. Participant #16 raised a similar issue:

ChatGPT is not the best tool for literature searches.

Despite the generally positive views concerning the value of ChatGPT in conducting a literature review, some participants had either not used it for the literature review or were unsure of how it could be used. There was genuine concern by some participants about the potential for unethical conduct by students in their writing of literature reviews and that this might go undetected. For other participants, there was also real concern that the voice of the researcher might well be replaced by that of the GAI application as Participant #24 duly noted.

... it should be used as a tool to support your research, not as a substitute for critical analysis or the guidance of your academic advisor or domain experts.

Diverse applications of GAI in the context of the literature review were discerned by participants, who reflected on multifaceted contributions to the research process. These applications in their view encompass the identification of key themes and examples within the literature, the selection of pertinent topics, literature search facilitation, augmentation of citation accuracy, generation of comprehensive reading lists, provision of structural frameworks for literature review, formulation of research questions and objectives, and identification of prevalent trends within a specified subject area. Noteworthy is the capacity of ChatGPT to assist researchers in recognising authoritative sources and discerning gaps within the field. Participant #26 elucidated the potential utility, affirming that ChatGPT can guide students in analysing results, identifying knowledge gaps or limitations, refining research topics or questions based on identified gaps, and generating new keywords or phrases. Moreover, it aids in appropriately shaping and rewording research questions and objectives.

Despite the generally favourable perspectives on the efficacy of GAI in the literature review, a contingent of participants either refrained from its utilisation in this context or exhibited uncertainty regarding its applicability. Ethical considerations surface as a deterrent for some, positing ChatGPT as a potentially ethically precarious tool. Participants also advocated for caution, emphasising that GAI should not supersede the role of the researcher. Participant #24 underscores this sentiment, asserting that ChatGPT should function as a supportive tool rather than a substitute for critical analysis or the guidance provided by academic advisors or domain experts.

GAI Holds Potential for Research Instrument Development and Data Analysis but the Authenticity of Ownership is Troubling

More than half of the respondents (n=16) reported that AI can support research instrument development. According to Participant #11, AI,

will provide the student with a good indication of the validated studies that have been conducted and a quick and easy set of references to enable the student to access the source of the research instrument so that it can be adapted for the current study.

Participants noted that AI can aid in directing students to previously validated studies, which can be a helpful guide in developing their research instruments. They believed that AI language models like ChatGPT can also be valuable in creating and framing questions in research instruments like interview schedules. In that regard, participant #5 reported that AI could be used,

to generate quantitative questionnaires as well as directives on how to develop interview or focus group schedules. Could assist in highlighting newer forms of instruments.

However, one respondent reported that AI cannot and should not be used in developing research instruments because the University had no policy guiding the deployment of AI in developing research. In addition, eleven participants reported being unsure of how AI can be used in developing research instruments because they were unfamiliar with its functionality and potential.

Most study participants (n=24) reported that GAI holds much promise in assisting students with data analysis. About half of the participants (n=14) reported that GAI was useful for analysing both qualitative and quantitative data. According to Participant #15, GAI improves,

data collection and better analytics to produce insightful and better representations of results.

Four participants reported its usefulness in analysing quantitative data, while three reported its usefulness in analysing qualitative data. At the same time, however, ten participants reported that GAI was not useful in data analysis.

Three of the ten respondents reported GAI's inability to perform data analysis and felt that it could not be used for either qualitative or quantitative data. It was clear that these participants had not explored GAI to any significant extent.

Contrary to the prevailing sentiment, one respondent contends that the absence of a university policy governing the deployment of AI in research development precludes its use in crafting research instruments. Additionally, eleven participants express uncertainty regarding the applicability of AI in this context, citing a lack of familiarity with its functionalities and potentialities.

The prevailing consensus among a significant portion of respondents underscores the utility of AI, specifically ChatGPT, in facilitating research instrument development. The elucidated benefits include providing access to validated studies, expeditious referencing, and guidance in structuring research instruments. Despite these affirmations, notable reservations and uncertainties persist among a subset of respondents, reflecting varying levels of institutional policy awareness and apprehensions regarding AI functionalities.

Discussion of Findings: The Risk of Ceding Responsibility to GAI

The findings of this exploratory study are based on early empirically generated evidence on university teachers as they conduct their jobs as research supervisors. Much of the deliberations in academic circles up to that point were based on anecdotal evidence and personal reflections, as were many of the support initiatives that were presented to make the presence of GAI better understood in the academic arena. This study reveals the continuum of proclivities for engaging with GAI's potential in research supervision. This ranged from technophiles keen to embrace the profound affordances of GAI for research supervision to technophobes reluctant to venture into the world of GAI. As in any continuum, some individuals occupy different places on the technophile-technophobe continuum as it relates to how they envisage the effect of GAI on their work as research supervisors.

At the time of conducting this study, the world had just begun to recover from the effects of COVID-19. This contagion triggered rapid development in digital technology, especially in teaching and learning. At the time, technology-averse teachers at both universities and higher education realised that for their survival and effective functioning, they had to reskill and develop new competencies to remain relevant. At the time, the performance expectancy of

online teaching and learning was shadowed by face-to-face in-class teaching. In the case of GAI and its implications for the research supervision enterprise, there is a need to manage the expectations and perceptions of lack thereof amongst research supervisors. For those technophilic research supervisors, managing expectations may entail exercising restraint and sober assessments of research student supervision responsibilities. There is a real danger that research supervisors (both experienced and novices) might abdicate some of their responsibility or cede responsibility for supervision to GAI. This is a concern also raised by Dai *et al.* (2023). In key aspects of the research supervision enterprise, from supervising the initial stages of the project (project conceptualisation and research proposal development) to supervising the choice of research methodology and methods, data analysis and the eventual construction of the research project report, supervisors need to be mindful of the research students under their care and the proclivities of such students for technology adoption. Large-scale studies of university students' propensities for technology indicate that the higher education student body is far from homogenous.

Mismatches between research supervisors and students with different propensities for GAI adoption will likely create tensions that might not have existed previously, a finding also revealed by study of teacher educators. Research supervisors indeed need to manage this tension. In instances where technophile supervisors are paired with technophobe students, there is much opportunity for powerful, technologically savvy supervisors to guide their students and scaffold research student learning in particular ways related to using GAI in the research process. Such supervisors may be able to help research candidates develop positive effort expectancy and performance expectancy, which may result in better harnessing of the potential of AI in the research enterprise. As expected, much is still to be learnt about how these relationships work. As such, it presents as an area that is ripe for research. In contrast, when research supervisors who might be technophobes are assigned to supervise the research projects of students who are technophiles and already relishing the affordances of GAI, these supervisor-supervisee relationships are likely to present peculiar challenges for both the supervisor and student and an issue that needs due consideration and further research.

The speed and efficiency of GAI in harnessing the enormous amount of extant literature in the various fields of academic scholarship is unprecedented. This is viewed as remarkable by research supervisors who are beginning to see the power of GAI's considered and responsible use. The

implication for research supervision is that supervisors may now demand more sophisticated and expansive literature reviews, given the capability that GAI has to assist research students with the tedious task of manually trawling through the many scholarly databases that house scholarship on the respective phenomena they wish to study. This concurs with Dai *et al.*'s assessment that supervisor expectations of their research students will likely shift (2023). The effective use of GAI (through nuanced prompt engineering, for example) is likely to reduce the time that research students might take to identify proverbial lacunas in their respective fields and develop their research foci and research proposals.

Given the timing of this study, that is, in the very early days of free GAI, what was clear was that many participants in the study were yet to have immersed themselves into the world of GAI and had not experimented to any significant extent, with the many GAI applications that were beginning to emerge as free or with nominal charges. With regard to effort expectancy, mastering the mechanics of the use of Research Rabbit, an AI-powered tool, for example, might be viewed as requiring too much effort on the part of research supervisors, let alone be in their realm of immediate experience.

Almost half the participants in the sample had what might be regarded as second-hand, anecdotal knowledge of GAI and its advantages and perils suggesting that the social influence factor of this technological innovation could well be a crucial leverage point for universities as they orchestrate staff development initiatives that might be led by influential, successful academics who are beginning to employ GAI as part of their personal research supervision skills repertoire. To allay fears and anxieties about the risks of irresponsible GAI use in research, such staff development programmes need to necessarily include aspects of caution. Such professional development might consist of direct reference to university policy, including the legal ramifications for research supervisors and students for transgressions related to negligence, plagiarism and abuse.

The findings also highlight the ethical dilemmas that arise when research supervisors integrate GAI into their supervisory roles. While GAI tools can significantly enhance efficiency by assisting in literature reviews, refining research questions, and even generating preliminary data analysis interpretations, concerns about academic integrity and the authenticity of student work remain prominent. Some supervisors expressed apprehension that students might become overly reliant on GAI, using it not as a tool to aid their critical thinking but as a substitute for deep intellectual engagement with their research. This aligns with broader concerns in the literature regarding the overuse of AI in education, where scholars argue that without careful oversight, AI-generated

outputs may dilute the originality and rigour of academic work (Mhlanga 2023). As such, the study underscores the importance of supervisors maintaining a balance between leveraging AI's capabilities and fostering an environment where students develop independent analytical and research skills.

Additionally, institutional readiness and policy frameworks emerged as key themes in the findings. Many research supervisors indicated uncertainty about their university's stance on GAI, with some reporting a lack of clear guidelines on its ethical and pedagogical use. This gap in institutional support suggests that universities need to be more proactive in crafting policies that not only regulate AI use but also provide structured training for both staff and students. Without clear directives, there is a risk that GAI adoption will be inconsistent, leading to disparities in how research students are supervised across disciplines and faculties. As observed in previous studies on digital transformation in higher education, structured institutional interventions, including professional development programmes and formal AI literacy training, are critical to ensuring that technology adoption aligns with academic integrity principles and enhances rather than undermines the research supervision process (Alam & Tondeur 2024).

Institutional Policy Development and Comparative Lessons

University policies on GenAI have emerged unevenly across jurisdictions, and comparative analysis highlights several design principles that could guide South African institutions. Document analyses of institutional AI guidance reveal common features: clear scope (what tasks and outputs must be disclosed), disciplinary differentiation (different rules for STEM, creative arts and humanities), staff and student education requirements, and mechanisms for enforcement and appeal (Humble 2025; Chan *et al.* 2023). Comparative studies from Asia, Europe and North America show diverse models — from permissive, AI-positive frameworks that emphasise disclosure and pedagogy (e.g., Hong Kong university pilots framed as 'AI ecological policy') to restrictive approaches that ban certain AI uses in high-stakes assessments (inspections and regulatory advisories in Australia have led to oral defences and stricter checks in some institutions) (Chan *et al.* 2023; TEQSA advisory reporting). For South African universities, a hybrid model may be appropriate:

- (1) adopt a university-wide statement aligned to national and UNESCO ethical norms;

- (2) require faculty-level operational rules that interpret the statement for disciplinary practices; and
- (3) mandate capacity-building and monitoring mechanisms.

Policy processes should be participatory and iterative: evidence from institutional document studies suggests policies developed top-down without stakeholder engagement risk low compliance and unintended consequences; conversely, inclusive processes that involve supervisors, students, ethics committees and legal counsel produce contextually sensitive and enforceable guidance (Wilson 2025; Humble 2025). Finally, given the resource differentials across South African institutions, inter-institutional collaboration (shared templates, pooled training resources, and national guidance from bodies such as CHE/ DHET) can reduce duplication and ensure more equitable policy uptake across the sector. Incorporating these comparative lessons into institutional policy design will reduce policy lag and better align supervisory practice with ethical and pedagogical objectives.

Concluding Comments

This study has demonstrated that research supervision in South Africa is being reshaped in complex ways by the emergence of GAI. Supervisors occupy a spectrum of positions, from technophiles eager to experiment with AI affordances to technophobes reluctant to cede any ground to technology. What emerges clearly is that the ethical implications extend far beyond plagiarism: issues of authorship, epistemic justice, accountability, and bias must be central to any supervisory practice that incorporates AI. For African universities, these challenges are further compounded by infrastructural inequities and the imperative to protect local knowledge traditions within a globalised, AI-driven research landscape.

The study also underscores the critical role of institutional policy development. While universities in the Global North are experimenting with transparent disclosure frameworks and discipline-sensitive guidelines, many South African institutions continue to lag in formulating clear, enforceable policies. Comparative lessons suggest that participatory, contextually grounded policy processes are essential to avoid both over-restriction and uncritical adoption.

By explicitly engaging the South African higher education context and situating findings within wider African and international debates, this paper contributes to a more nuanced understanding of AI adoption in research supervision. It highlights the urgent need for universities to design policies that support innovation while safeguarding academic integrity, epistemic diversity, and ethical accountability. Future research should expand to cross-institutional and cross-country comparisons in Africa, exploring how supervisors and students negotiate the risks and opportunities of GAI in contexts marked by uneven resources and contested knowledge traditions.

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Chapter 9: With or Without Artificial Intelligence: The Transformational Challenges of Postgraduate Supervision in South African Higher Education

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Abstract

The quality of postgraduate education primarily depends on effective supervision of postgraduate students. In today's technological driven landscape, the supervisory role has become more challenging due to different technological elements, such as ChatGPT, Artificial Intelligence, Machine Learning (ML and other technological tools etc.). This is in addition to the economic, social, and educational backgrounds of postgraduate students where their attraction and retention are significantly important for educational institutions. This work proposes that though AI is significantly important for academic research the potential to erode the basis for thorough and careful research process current and future developments in artificial intelligence (AI) systems vis-à-vis the space for human intervention have the capability to transform or revolutionize the research process either for better or worse. Thus, AI systems can productively serve as agents of transformation since they help to streamline and conduct our research. However, these technological elements can also become a potential enemy if allowed to replace the position of the supervisor and the student thus weaken academics ability to learn as theorists, or take academics off course through bias, inaccurate, and sometimes fake information regarding a research phenomenon, while putting students' postgraduate learning experience and supervision and other interest at risk. Whichever angle is considered, AI systems have come to stay. Using qualitative method, this work argues that AI has the potential to undermine the very essence of academic inquiry owing to its potential to disrupt the established research methodologies, ethical

paradigms and fundamental principles that have long guided scholarly work, though seen as indispensable for academic research. Concluding that while the use of AI tools can be entertained in research activity, it has the potential to undermine the credibility of the researcher and the supervisor since the product of such research would no longer be the research team's (the student and the supervisor) ideas but that of the AI, hence the need for caution while using AI.

Keywords: Technology, Artificial Intelligence, Research, Education, Ethical paradigms

Introduction and Background

According to Pal (2023) AI has markedly reshaped the landscape of academic research, with the capability to act as a catalyst for both methodological innovation and expansive shifts in scholarly paradigms. Evidently, the transformative power of AI cut across several disciplines, making it possible for researchers to meaningfully engage with complex research data and questions faster, arguably, liberating researchers from time-consuming and often boring and monotonous research tasks. Burger *et al.* 2023; Neyedli *et al.* 2011, further reiterate that the multifariousness of AI goes beyond expediency; but also serves as a means to enhance the reliability and the ability to reproduce and replicate research in addition to reducing human error in data collection and its analysis. Thus, justifying that AI's have the capability(ies) to delve into rigorous academic tasks that requires more intellectual expertise.

There are several studies that have been conducted on students' supervision of which much have concentrated on unfolding the ever-lengthening lists of the functions that a potential supervisor must carry out. Recently, academics have been noted to be writing on the functionality of the AI vis-à-vis the supervision of post-graduate students. However, most authors tend to neglect the transformational challenges of postgraduate supervision in the era of AI, which academics seem to have identified as means to an end in the ever-increasing lists of tasks for the supervisors. Generally, and in many African institutions, all-encompassing academic scholarship is assessed based on the quality of publications from academics, the regularity of publishing, records of postgraduate supervisions, grants and awards, as well as service to the academic community (Rumney 2016; Lemmer 2016). Daramola (2021) believes that postgraduate supervision plays a major role in attaining the professorial cadre,

and that students are primarily the main actors that punch up the delivery and the attainment of these academic achievements. A very good analogy of this is the typical automation procedure of Input-Process-Output (IPO).

By interpretation, the supervisor from experience, gives input by sharing his/her ideas and experiences with the supervisee, who in turn processes the input powered by his/her motivation, and intellectual ideas to generate outputs in the form of a completed thesis and sometimes journal articles from the thesis. Debatably, the quality of the input from the supervisor and the quality of the processing by the supervisee primarily determine the quality of the final outputs. In the new era of digital media and AI, which may optimally guide and support postgraduate students for greater productivity along their research journeys, acting as a research supervisor in Higher Education is challenging and complex.

The propensity that academics may avoid it in its entirety due to the fear of its nature and their field of specialization is somewhat high. Kenny and Fluck (2022) and UNESCO (2020) reiterate that the changes that have taken place in higher education in recent decades with massification strategies have had significant effect on higher education resulting in the increased number of enrollments in universities, translating to a significant upsurge in academic staff workload. Unarguably, this would have some sort of negative impact on effective research supervision. In a simple analogy, given that the University of Zululand, South Africa first awarded PhDs in 1984, with more than 500 awarded in the following three or four decades in addition to several numbers of Master's degrees. What this means is that research supervision has become more challenging as a result of the difficulties in the provision of personalized, individualized and differentiated attention to postgraduate students (Denis *et al.* 2019; Igumbor *et al.* 2022).

However, as much as one would see AI as an essential tool for academic research cum postgraduate supervision, one pertinent question that needed to be answered centered on AI's undermining the very essence of academic research and inquiry. As it sounds, it is not a matter of strengthening research with advanced tools. As supported by Butson and Spronken-Smith (2024:563) that, AI is capable of disrupting the established methodologies, ethical paradigms and fundamental principles that have long guided scholarly work. In other words, research activities, such as writing, data analytics [which converts raw data into actionable insights] and content analysis in literature reviews may be subjected to this disruption. This is not to say that supervisors are not facing challenges such as high abrasion rates, limited supervisory capacity, the under-

preparedness of students in postgraduate education, which has drawn the attention of scholars to the use of innovative solutions. However, the goal of this work is to involve readers as well as scholars in this debate; it is not intended to win the debate over the use of technology, particularly artificial intelligence (AI), in research; rather, it is intended to deepen our understanding while fostering a robust, knowledgeable and proactive discussion about the direction of academia in an increasingly AI-dominated era.

Aim and Method

The aim of this chapter is to examine whether the use of AI tools in research vis-à-vis the dynamic supervisory role of educators in tertiary education has the potential to undermine the very essence of academic inquiry owing to its potential to disrupt the established research methodologies, ethical paradigms and fundamental principles that have long guided scholarly work. To gather deep insights into the topic under consideration, an extensive review of the relevant literature was conducted through searches in journals, newspapers, periodicals and Higher Education websites. Thus, this paper presents a qualitative study about the impact of AI vis-à-vis transformational challenges in postgraduate research supervision.

Theoretical Support

From the literature the following classical theories in reference to the use of AI tools in research were identified, including the Kantian-inspired model, utilitarianism and precautionary principle. According to Jacobson *et al.* (2020) the Kantian model places a demand on researchers, the supervisee and the supervisor who must not play away their responsibilities. The authors further explained that the same process must be invoked in order to ensure responsible AI tools. By extension, the developers of AI tools must ensure that AI will not cause disruption or pose a danger to society in addition to making sure that its inadequacy is addressed. In this vein, researchers must use AI tools responsibly during their projects. For the utilitarianism approach, Jacobson *et al.* (2020) place emphasis on the consequences and the best possible outcome for most researchers. Again, the utilitarianism approach sees in AI tools the problem of using machine learning algorithms to help progress science and maintain participants' privacy, instead of preserving the wellbeing of research participants and other individuals. While writing on AI tools, Chassang *et al.* (2021)

reiterate that the precautionary principle in AI may serve as a framework to boost research and development with responsible AI tools, but the protection of individuals, society and the environment from potential negative impacts that may arise from AI systems must be prioritized. What this translates to is that the societal needs should be considered in addition to making sure that potential risks are identified and taking care of, from the conception of the AI tools.

Understanding Research Supervision in Higher Education

In Higher Education (HE), quality and high level of research supervision is expected. This is underpinned by a strong quality assurance, especially at doctoral level. Wright (2024:482) concurred that at doctoral level, the underlying element is the advancement of knowledge, original research and critical thinking. On the part of the academic supervisors, academic freedom and innovative thinking takes the center stage. Zhao (2001) sees research supervision as the highest level of delivery. At this level, it requires intricacies of skills, expertise in the field, understanding stakeholder management, traversing funding bodies and the ability to manage sensitive relationships between the supervisor and the supervisee.

In practice, research supervision is sometimes presented with complex dynamics in relationship between the supervisor and the student. For example, academic supervision is like a marriage where the supervisor and the supervisee start out with the best intentions, hopes and aspirations of happy ending with research outputs and publications. However, unforeseen circumstances such as sickness, lack of commitment, inability to get funding among other issues may lead to withdrawal from the study and differing outcomes can change the dynamics of this marriage. Like all marriages, the relationship between the supervisor and his/her student is a shared process and in many cases counselling and advice are critical elements required by both parties. Thus, research supervision is laden with intensive and varying degrees of processes. Again, supervisors and students are frequently engaged in communication to facilitate the supervisory process. Halse and Malfroy (2010) however, expresses the opinion that often, research supervision is full of stress since it demands a significant amount of time and attention if the supervisee must be effectively guided through their academic journey.

Overtly or covertly, academic supervisors are commonly fraught with numerous responsibilities, this include teaching, administrative duties, personal research, conferences, thus leading to possibility of being overloaded with

schedules that could somewhat compromise their supervision and its quality. Undoubtedly, this could force supervisors to focus more on the functional and technical aspects of supervision while neglecting the students' social and emotional needs. Hence, researchers have had to explore various means and technological solutions. But the question is, how rigorous would such research be in terms of managing the dynamics of research, its quality, ethical questions as well as differentiation in technology generated learning and human intellectual analysis?

According to Lee (2008:267), supervisors' approach to supervision is influenced by two main factors: first, their own experiences as doctoral students, and second, their conception of research supervision. Lee further highlights five aspects of research supervision including functionality, enculturation, emancipation, critical thinking, and relationship development.

1) Functionality: The aspect of functionality focuses on the expert management of research projects and their advancements, which is frequently accomplished through scheduled meetings, goals, and recurring outputs like presentations at conferences and publications.

2) Enculturation: This is the process by which students acquire the skills necessary to become members of the disciplinary community and develop a sense of belonging. This process frequently involves learning the investigative, communicative, and writing techniques that are common to a particular academic community.

3) Emancipation: This is the process of helping students find personally meaningful frameworks, reframe their identities, and transform themselves in order to empower them to become self-sufficient.

4) Critical thinking: The goal of critical thinking is to help students become more rigorous thinkers, identify and evaluate the weaknesses in arguments, analyze and question their own work, and think in novel ways.

5) Relationship development: This emphasizes the social and emotional ties that exist between supervisees and supervisors and is concerned with loving and caring.

Understanding the Functionality of AI and Postgraduate Supervision

The upsurge in the number of postgraduate students has somewhat increased the burden of having to face a considerably higher student-supervisor ratio. This challenge has led to looking for innovative solutions that can serve as leeway to bridge the challenges of supervision while effectively supporting the supervisee. Hence, one possible avenue that could be harnessed lies in the capabilities of technologies like AI. Barnes *et al.* (2024:1) point out that artificial intelligence is the science and engineering of creating intelligent computers, with a focus on machines' ability to learn, at least in part, like humans. According to Puntoni *et al.* (2021) AI is an ecosystem or technological tool that includes three fundamental components: data collection and storage, statistical and computational techniques, and output systems. These component enables AI products and services to perform tasks that are commonly understood to require high intellectual capability and autonomous decision making on the part of humans. In the current era, AI has become a general-purpose technology with the capability to transform users' lives in different ways. Hence, Li *et al.* (2023) observe that the use of AI for research by students is becoming a major concern for universities. Unarguably, most of these tools can be used to generate content, simply because of its user friendly.

According to Cochrane (2021), we can confidently conclude that there has never been so much technological change in such a short period of time, and that society has never faced such challenges from the empowerment of the individual brought about by personal upward mobility in computing. Technology has had a significant impact on the fields of employment, play, retail, entertainment, and services. ChatGPT has been upending our world [of academics and research] with its astonishing performance thus aiding its quick spread and acceptance. ChatGPT (Chat Generative Pre-Trained Transformer) according to Peres, Schreier, Schweidel & Sorescu (2023) is a free chatbot developed by OpenAI, that generates text in response to a human-provided prompt. ChatGPT is based on large language models (LLMs) that autonomously learn from data. Therefore, can ChatGPT be a co-author in a research work knowing fully well that it is capable of writing or generating information in any research domain? How should academics go about AI generated literature reviews?

Sporken-Smith (2024), Müller *et al.* (2022), and Tauchert *et al.* (2020) agree that AI's functionalities serve as leeway for the supervisor, supervisee and researchers alike, to focus on the sections that talk to conceptual framework and

the theoretical aspects of their research work, therefore consenting to a deeper level of concentration on the research questions. Further to this, they allude to the ability of AI process natural language which has proven to be invaluable in the area of literature review. Unarguably, AI can effectively summarize a large quantity of literature, and present researchers with strong and coherent summaries in addition to highlighting some research areas for further investigation.

Thus, advocates of AI have complimented its capability to effectively act as a research tool while it also presents a plethora of chances to improve researchers' experiences through interactive and responsive supports. Corroborating this, Butson and Spronken-Smith (2024) comments that the ability of AI to support multidisciplinary research is unequivocally the most striking example of its innovative and transformative force. Because AI can swiftly and effectively analyze datasets from a variety of academic disciplines, it opens the door to innovative multidisciplinary initiatives and collaborations by enabling researchers to draw correlations they might not have otherwise thought of. Thus, expanding the scope of individual research efforts while serving as means of enriching academic discourse. According to Müller *et al.* (2022) Artificial Intelligence plays a transformational role not just in operations but also in the epistemological underpinnings of research. It broadens the scope of what may be known and studied by facilitating larger-scale, more intricate investigations that provide a more nuanced knowledge of occurrences. Thus, rather than only being a tool for automating monotonous work, AI enhances human talents and acts as a transformative force. It actively participates in the research process, influencing not just the methodology but also the questions and answers that might be investigated (Butson & Spronken-Smith 2024). It thus indicates a methodological turning point of significance that the enabling function of AI in academic research cannot be whisked away as mere technological cosmetic application.

Furthermore, AI's incursion into the research world is not immune to the writing process given its transformative character. Artificial intelligence (AI)-driven writing tools have the ability to change the researcher's perspective on their own work beyond simple style recommendations or grammar checks. These resources can question the text's epistemic integrity by encouraging writers to create better logical reasoning frameworks and even pointing out logical errors (Pividori & Greene 2023; Abd-Elsalam & Abdel-Momen 2023). But when combined with the kind of best practice, AI tools can be creditably used as an innovative tool. Van Dis *et al.* (2023) draw our attention to the dangers of utilizing AI while describing the important discoveries of the areas

of study. Therefore, additional study is required to establish best practices for employing AIs in support of human researchers, as well as to better understand the validity and reliability of doing so. By implication, AI has the potential to alter our perceptions of data, research challenges and even what constitutes knowledge. It does this by speeding up the process of conducting research. Unarguably, this is a force that has the power to completely alter the core traditions of academic rigor, rather than just a small shift.

Borrowing from the Greek mythology of Pandora's box, arguably, AI is mostly capable of speeding up the process of research; thus, given the supervisee and the supervisor some sort of academic relief in their research journey, in addition to changing perspectives about research problems and generation of data. Christou (2023); Ryan *et al.* (2021), believe that this is not a minor change in the process of research because AI is practically redefining the essence of conventional research. Hence the question of how researchers would tackle the challenges relating to ethical, inform consents, methodologies and other research involvement in the wake of AI tools.

Transformational Challenges of Research Supervision with AI

The use of AI by the supervisee and the supervisor [without any policy of intervention] is here to stay. That employees and supervisors want students to graduate at the record time has made policy makers to jettison the effects of AI. Unarguably, this is because of the user friendly of AI tools, hence the challenges of how supervisors, the supervisee, and researchers alike should respond to the emergence of AI tools.

Traditionally, the issue of informed consent in research is a non-negotiable ethical position that cannot and must not be whisked away. Conversely, this honest contractual agreement between the supervisee, the supervisor, the research respondent, and the institution represented by the supervisee has been compromised owing to the sophisticated nature of AI tools. For example, algorithms [a set of mathematical instructions that is designed to accomplish a task] have the ability to reuse data for several analyses. This to a large extent, may not have been put into consideration in the informed consent. Liaw *et al.* (2020); Tozzi and Cinelli (2021) believe that these types of ethical complexities require researchers as well as higher educational institutions to reconsider approaches to participant ethics, most importantly when their data are capable of being used in several and other research. This is in addition to the problem of data privacy, security and confidentiality. Certainly, the

ravenous craving for data by the AI tools is a well-known phenomenon by scholars. Butson and Spronken-Smith (2024:565-566) concurred that the process of data collection, its handling, and storage are often glossed over by researchers, thus presenting researchers with a quandary of tension between leveraging the capability of AI tools and safeguarding data privacy.

For scholars and higher educational institutions, AI tool might be a promising leeway to speeding up research and efficiency-boosting and reporting measure, but the existentiality of the AI tools has played down the possibility of plagiarism and its grave consequences. Wright (2024) defines plagiarism as the act of taking another person's work or idea and claim it as one's own. Overtly, this includes unpublished and published materials. It is therefore pertinent to the question where this sits reference to higher education regulations on plagiarism when using AI tools or discussing the phenomenon with our colleagues to be [the supervisees] and supervisors. Wright (2024) express that AI tools should be explicitly seen as occurrences of plagiarism in research. As stated, above AI is here to stay, definitely supervisors will always encourage their supervisees to use AI tools. Debatably, the use of AI tools may have a negative implication for the integrity of academics and while questioning the place of the reliability of plagiarism-check software used by higher education institutions. This suggests that embracing integrity should not be thrown into the wind rather supervisors must put this into consideration.

Unarguably, emergence cum transformative power of AI tools naturally comes with the question surrounding the issue of intellectual property, its consequences for copyright and patent laws. This cut across the entire globe and the most affected is the academic world that is supposed to be the custodian of the positivity that may likely emerge from the use of AI tools. Therefore, how can the concerned intellectual property be protected? In fact, who should be protected in the first instance, and how far should the protection go? In his answer to this question, Brittain (2023) believes that using AI tools to generate an image to be used in a journal, thesis, or a book [for example], cannot be equated to a human authorship and thus such work cannot be copyrighted.

Vincent (2022) asks, how much credit a human may receive for using AI tools in research work? What are the psychological mechanisms and contingencies? Should the level of human involvement affect the ability to copyright the output produced by the AI tools? What is the difference between using conventional tools and ghostwriters, or a supervisee who follow and execute the directions of the supervisor in his/ her presentation? These are the questions that must be taken into consideration by the supervisor and the supervisee while

considering the use of AI in research. Evidently, both the supervisor and the supervisee are in a vantage position in that both have the opportunity to develop their research skills and critical thinking, data analysis skills in addition to facilitating professional networking with other researchers and funding opportunities.

While the levels of rights differ [in terms of human and animal protection], the concept of fundamental human and animal rights remains a significant value to human beings and animals alike. While focus on research guidelines, patterns, and norms are being propelled to fit the standards of AI tools, there are questions on moral status and rights that have been raised to fit into this new experience. Scholars have argued that it is not possible to assign moral agencies to AI tools. Stahl and Coeckelbergh (2016), Farisco *et al.* (2020) argued that AI tools and robots do not seem capable of solving problems ethically and lack explanation with regards to its generated results, in addition to the absence of willingness to choose which invariably might have grave impact on decision making in research ethics.

Unequivocally, rights are attributed to all living entities, man, or animal. In South Africa [and by extension every country that is conscious of the rights of others including animals] the law protects animals as sentient living organisms and unique tangible goods. The South African Medical Research Council for example, recognizes that all vertebrate animals are protected by law in South Africa (Animal Protection Act No 71 of 1962). Therefore, it is an offence in terms of this act to kill or interfere with the well-being of an animal for scientific or educational purposes without justification which is ratified by a formal process of ethical review (Pick 2004). The legal status of these animals obliges researchers not to harm them during research projects, thus questioning the status and rights that should be assigned AI tools in research of this nature. Debatably, researchers' relationship with the use of AI tools in research has, for the most part, developed into a dynamic, intense, and mutually beneficial partnership. It is a nuanced romance with technology that defies conventions of traditional human/computer interaction. Thus, AI tools can be thought of as an interactive sounding board for researchers, postgraduate students, and their supervisors, helping with idea development, organization, and refinement. However, this question must be answered. Is the researcher's writing generated by AI tools or the work of the researcher? Undoubtedly, a fundamental component of academic identity is academic writing.

According to Hyland (2002), academic writing is an act of identity, just like all other forms of communication. It not only communicates disciplinary

information but also presents the academic character of the author. Depending on how it is read, our writing as academics presents us as scholars. Further to this, is AI smarter than us as academic? Certainly, AI does not aim to be smarter than academic/humans. Rather, it makes use of Natural Language Processing (NLP) and machine learning to augment and improve our capabilities, enabling quicker and more effective information retrieval. Nevertheless, when it comes to making important decisions, it fails. Thus, the power of AI only lies in its ability to quickly find, compile, and summarize large amounts of data. Conversely, judgment, insight, and critical thinking are human qualities that are essential to academics, and these cannot be replaced.

In general, the University, Research Ethics Committee (REC), or Research Ethics Boards as they are known in other institutions, are primarily concerned with safeguarding human and, indirectly, animal research participants. They also make sure that supervisees and supervisors adhere to the funding requirements of various funding agencies. In essence, RECs make sure that studies involving human subjects are carried out in accordance with national and international ethical standards, laws, and guidelines. Reviewing and supervising research to ensure that research participants receive the required protection is the main objective of Research Ethics Committees (RECs), which are composed of expert groups that evaluate research proposals with an eye toward ethical issues. Apart from being proactive, anticipating potential hazards in research and resolving ethical dilemmas. Overtly or covertly, the role of university research and ethics committees are very essential to quality research outputs, but this cannot be replaced by the use of AI. Given the unique circumstances surrounding AI research, there is need for RECs to seek to reduce the dangers of potential harm brought on by technology. Samuel and Derrick (2020) are of the opinion that this could be accomplished by looking into scientific inquiries about the source and caliber of data, algorithms, and artificial intelligence; verifying the validation procedures carried out to make sure the prediction models function; and, if necessary, asking for additional validation to be performed.

Applying generative AI, chatbots, analytics, and personalized learning experiences can improve learning efficiency, provide customized educational support, and automate administrative tasks. However, for AI implementation in education, ethical principles should guide it, together with careful consideration of the potential risks and limitations. Educators, parents, and policymakers must actively engage in dialogue and decision-making processes to ensure AI's responsible and equitable use in education. Future research should address the

ethical concerns, cultural considerations, and privacy issues associated with AI in education.

Furthermore, the reliance on AI tools in research raises questions about equity and access, as not all supervisee and supervisors may have equal access to AI-powered resources and tools. By implication, the era of AI presents both opportunities and challenges for research. With this, developing countries, particularly those in the global South may be forced to depend on AI generated data from developed countries which may not be beneficial to such institutions but rather open such institutions and researchers to being exploited.

Despite the assistance provided by AI tools, supervisors and supervisees should be cautious in adopting it. The main issue with this, though, is how dependent students are on these devices. The introduction of AI tools in research can offer a simple substitute, which could discourage students from devoting significant amounts of time to rigorous, in-depth thought and intellectual work (Dai *et al.* 2023). Essentially, when students use ChatGPT extensively to process texts and write assignments, they may lose the opportunity to process texts directly, which could impede their ability to further develop their written communication and deep comprehension skills. As a result, the use of AI in research could encourage a mechanistic approach, which could be detrimental to students' academic and intellectual growth. Therefore, it is critical to find a balance between leveraging AI to increase productivity and maintaining the essential human endeavors of research, such as creative ideation, thorough investigation and dissemination of novel knowledge.

According to Dai *et al.* (2023), ethical issues pertaining to the application of AI in academic settings are vital but still poorly understood. The introduction of new tools like ChatGPT makes it more difficult to define the parameters of academic integrity and deal with possible cases of academic dishonesty. Concerns about authorship, plagiarism and inappropriate dependency are raised by the use of AI. Furthermore, there are important ethical conundrums that require in-depth consideration and resolution due to the inherent bias in AI algorithms, fairness concerns, and the possibility of abuse. Strong ethical standards and protections must be established as graduate students continue to incorporate AI into their research and teaching methods to guarantee the ethical and just application of these potent instruments.

Conclusion

As was already mentioned, AI is undoubtedly here and changing a lot of aspects

of academic life. The question is not about whether to integrate AI and its tools, but how to do so in a way that is consistent with academics' primary research oversight is the urgent question. AI raises ontological, ethical, and epistemological issues. Therefore, even though AI technologies have the potential to completely transform research, their application must be balanced with a knowledge of their limitations with careful consideration of the ethical ramifications. Therefore, it is essential that future research address these issues and devise plans for successfully integrating these technologies into the research landscape while enhancing academics' credibility.

Importantly, academic supervisors are in a unique position to direct practice and should not back down from challenges. Supervisors play important roles as mentors and guarantee that students have a solid foundation in behavior. Academic supervisors also need to stay up to date by engaging in professional development. Academic supervisors also need to stay up to date by engaging in professional development. This is because AI applications are currently affecting teaching and learning, in addition to changing academic research, thus potentially influencing academic careers and raising important ethical concerns. However, this could trigger interdisciplinary research between technically sound scholars and those who are ethically informed. From observation through the products of some supervisors, most tertiary institutions lack mandatory modules or training, and many supervisors lack access to specialized supervision training. All postsecondary educational establishments ought to make an effort to assign, assist, and train supervisors. For the appropriate application of generative AI tools according to Dai *et al.* (2023), academic institutions ought to make an effort to develop AI literacy protocols and curricula for faculty and students. According to Awdry (2023), generative AI tools have a place in research as long as students are encouraged to work honorably, which discourages them from lying. Therefore, the expected shift would not happen until newly developed best practices are integrated into all fields of research.

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Chapter 10: Postgraduate Co-supervision Conundrums: Complementarity and Contradiction

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Abstract

This chapter focuses on three doctoral students' experiences of co-supervision. We utilise a triadic dialectical coherence (TDC) framework to examine complementarity, contradictions and conundrums inherent in co-supervision arrangements. Methodologically, the study integrates *currere* and complicated conversation within a Janus three-dimensional perspective that emphasises temporal reflection and lived experience. This approach illuminates how doctoral students navigate their co-supervision journeys across past, present, and future, exercising agency and resilience, while negotiating tensions between philosophical, ethical, and institutional demands. Our research shows that co-supervision between doctoral students and co-supervisors leads to both positive outcomes and obstacles. Different supervision approaches provide comprehensive academic and emotional support, while inconsistent supervision approaches lead to cognitive development and personal independence. Consistent challenges in coordination and power dynamics fuel intellectual development. The research shows that productive co-supervision depends on organisational frameworks and human skills that manage rather than eliminate these tensions. The three-headed approach inspired by Janus offers insights for transforming supervision challenges into opportunities for growth in interdisciplinary research environments.

Keywords: Co-supervision, *Currere*, Doctoral students, Triadic analysis

Introduction

The number of PhDs produced by the 26 higher education institutions (HEIs) in South Africa has been a vexing point for the state, leading to a proclamation by the state for HEIs to produce by the year 2030, more than 100 PhDs per million inhabitants (DHET 2019). The 2030 target presupposes the capacity of higher education institutions to increase the supervision workload of academics successfully and, more importantly, that an expanded supervision workload will not compromise the quality and rigour of doctoral education. In this chapter, we argue that quality and rigour can be maintained if research supervision is pursued creatively. The single supervisor-student approach remains the dominant model in doctoral education (Lee 2017). However, co-supervision can neutralise some of the negative effects of the single student-single supervisor model (McKenna & Van Schalkwyk 2023; Wilmot 2021).

Co-supervision represents an evolutionary shift in how we think and supervise research (Brown, Geesa & McConnell 2020). The nature of supervision is comparable to the Roman deity Janus, whose two faces always look in opposite directions. One face, representing the decades-old traditional, dyadic interaction between a single supervisor and a student, has formed the basis of postgraduate research training for many decades (Ruano-Borbalan 2020). While the other face, the engagement of two or more supervisors guiding a research student is an emerging response to the increasingly complicated and multidisciplinary nature of current research (Mazzocchi 2019). It is evident that a collegial and negotiated approach is supplementing the decades-old traditional and hierarchical mode of transferring knowledge. The shift to multidisciplinary studies reveals the shortcomings of the traditional approach. However, these are not competing positions, and both are necessary and useful depending on the nature of the study. Both represent one of many approaches to research supervision, such as solution-based doctoral research supervision (Walsh *et al.* 2018), group supervision (Stynes & Pathak 2022), writing supervision (Lee & Murray 2013) and partnership supervision (Noel, Kurgat & Chang'ach 2022).

In South Africa, cohort doctoral programmes offering indirect supervision have become a thriving community of practice (De Lange *et al.* 2011). Whilst cohort supervision does not replace the single student-single supervisor model, it acts as a buffer for some of its challenges through supplemental support for research students. During cohort sessions, students engage with their peers and several supervisors. Cohorts can be organised by discipline, multiple disciplines, year of study, or by a group of supervisors and their students (De

Lange *et al.* 2011). The aim is to expose students to multiple voices, expertise and experience. The multiplicity of perspectives, methodologies, and theories adds richness to studies and creates opportunities to present, receive critique and share resources (Govender & Dhunpath 2011).

Supervision, we conclude, has diversified and become more inventive over time. In terms of the tradition-innovation continuum, we have chosen to focus on the co-supervision experiences of doctoral students. We analyse the benefits and difficulties of co-supervision through the lenses of complementarity, contradiction and conundrum. We conclude with the implications of co-supervision.

Conceptions of Co-supervision

The concept of co-supervision is not entirely new, as the first discussions date back to the late 20th century (Olmos-López & Sunderland 2017). The growing number of articles and books on co-supervision is a testament to its importance (McKenna & van Schalkwyk 2023). Moreover, the national review of South African doctoral qualifications highlights several key aspects related to co-supervision (Faller *et al.* 2023). According to Faller *et al.* (2023), a key finding was that traditional one-to-one supervision can be problematic, particularly in interdisciplinary research. This limitation is particularly evident when supervisors lack adequate guidance on graduate student characteristics and when students must consider multiple disciplinary perspectives. To address these challenges, the National Report explicitly recommends innovative practices that enhance doctoral supervision by making it more collegial and interdependent.

The national report suggests that the rise in the number of doctoral students has led to the appointment of both new supervisors and external supervisors (Faller *et al.* 2023), which brings difficulties as external supervisors may have limited orientation to the institutional vision and mission and may be unfamiliar with how the characteristics of doctoral students should be aligned with institutional goals (Faller *et al.* 2023). This situation can potentially impact the quality and consistency of supervision. Other complications include the practice of supervision, which operates within complex university dynamics influenced by the intersecting imperatives of growth, efficiency, transformation, and equality (Wilson-Strydom 2016) and disciplinary differences. However, there are differences related to disciplines. For example, Pyhältö *et al.* (2024) found that environmental, food and biological sciences report the highest frequency of co-supervision, while natural sciences prefer one-to-one supervision.

Although less common than one-to-one PhD supervision (Ukwoma & Ngulube 2020), the ‘few-to-one’ supervision model trend reflects the increase in interdisciplinary research, the specialisation of methods and the quality assurance requirements (Pyhältö *et al.* 2024). Co-supervision offers significant benefits, including knowledge sharing, improved learning experiences, and enhanced quality of research (Grossman & Crowther 2015; Segalo 2021). It serves as a safety net for academic mobility, ensuring continuity when supervisors retire, take sabbaticals or relocate. Additionally, it provides a valuable platform for training novice supervisors through mentoring by experienced academics (Grossman & Crowther 2015).

Co-supervision in Practice

The implementation of co-supervision presents an entanglement of relationships, power dynamics, and institutional practices that significantly impact student experience and success (Hansson & Schmidt 2023). While co-supervision disrupts traditional power dynamics by distributing authority among multiple mentors, it is replete with positive and negative consequences (Olmos-López & Sunderland 2017).

According to Paul, Olson and Gul (2014) students in co-supervision arrangements often report feeling more empowered to express their ideas and challenge assumptions. They also found that students must navigate a complex team climate in which prior relationships, power hierarchies, and supervisors’ personal interests influence the supervision process. In their study, Hansson and Schmidt (2023: 1178) reported that some students felt like “pawns in a bigger game”, particularly when supervision arrangements prioritise supervisors’ career advancement or networking opportunities over students’ needs. This includes instances of “back-scratching” arrangements and internal supervisor changes, which, while potentially beneficial to academic careers, do not always serve students’ best interests (Hansson & Schmidt 2023: 1179).

It is evident that the literature has insufficiently addressed students’ agency in co-supervision arrangements. Students are not passive recipients but active agents who negotiate power dynamics and draw on diverse expertise (Manathunga 2012). Dei and Asgharzadeh (2001) argue that student agency is central to transforming oppressive academic structures. Furthermore, students bring diverse backgrounds and expectations that interact differently with co-supervision models depending on their cultural contexts and prior experiences (Manathunga 2007).

The challenges of co-supervision are particularly evident in open e-learning contexts, where problems with student selection, supervision and communication can be exacerbated (Manyike 2017). To maximise the potential of co-supervision, Grossman & Crowther (2015) and Segalo (2021) suggest that institutions should develop responsible co-supervision practices, improve the training of novice supervisors and develop discipline-specific guidelines. Hansson and Schmidt (2023) argue that supervision teams should explicitly discuss roles and responsibilities before supervision begins to better support doctoral students' success.

Ultimately, while co-supervision aims to improve doctoral success, defined as completing the doctorate in the shortest possible time at the highest academic/scientific/professional level (Bitzer 2012), the complex interpersonal dynamics and power structures often leave students feeling disempowered, with the potential to reinforce rather than dismantle traditional academic hierarchies (Hansson & Schmidt 2023). Perhaps one of the most compelling arguments for co-supervision is the access it provides to diverse perspectives and expertise. In an era of increasing specialisation and interdisciplinary research, no single supervisor can be expected to possess comprehensive expertise across all relevant domains. A study by Paul, Olson and Gul (2014) found that students under co-supervision were more likely to produce research that successfully integrated multiple disciplinary perspectives, which suggests that co-supervision may be particularly beneficial for projects that span traditional academic boundaries.

The effectiveness of co-supervision varies significantly across institutional contexts and geographical locations. Practices considered successful in well-resourced Global North universities may differ substantially from those in institutions with different resource constraints or cultural norms (Nerad 2012). Green and Usher (2003) caution against universalising doctoral education practices, noting that institutional particularities fundamentally shape supervisory experiences. This contextual variability necessitates context-sensitive research rather than overgeneralising the impacts of co-supervision.

Nevertheless, co-supervision necessitates the development of new communication patterns that can accommodate multiple voices and perspectives. While this can present challenges, it also offers opportunities for richer dialogue and more comprehensive feedback. Olmos-López and Sunderland (2017) found that supervisors often developed explicit communication protocols to ensure clarity and consistency in their interactions with students. These protocols facilitated more effective supervision and provided students with valuable

models for professional communication in collaborative research environments.

The complementary structural elements of co-supervision within institutional frameworks offer significant advantages for both educational quality and academic collaboration. Bitzer and Albertyn (2011) provide a comprehensive, structured planning framework to distribute supervisory workload efficiently while maximising specialists' skills. Their multifaceted approach serves several crucial functions: establishing a foundation for productive student-supervisor discussions, enhancing capacity development among academic staff, enabling critical reflection and practice improvement, facilitating clear role delegation and accountability, and allowing customisation of supervision to meet individual student needs. The benefits extend beyond immediate educational outcomes to broader academic culture, as Paul, Olson and Gul (2014) observed that students exposed to co-supervision demonstrate a greater propensity for seeking collaborative opportunities in their future careers, thereby contributing to a more interconnected research ecosystem. These complementary elements reveal how well-structured co-supervision can transform institutional culture beyond individual doctoral projects, creating ripple effects that enhance research connectivity and interdisciplinary engagement.

Despite these potential benefits, structural contradictions emerge at the institutional level that impede the effective implementation of co-supervision models. Kumar and Wald (2022) identify how universities frequently struggle to adapt their institutional systems to effectively accommodate co-supervisory arrangements, creating administrative barriers to what might otherwise be beneficial educational practices. Gender-related issues introduce particularly troubling contradictions, as Almlöv and Grubbström (2024) expose practices where female co-supervisors are sometimes added to teams without their knowledge, merely to fulfil gender quotas in funding applications. This revelation highlights how institutional pressures around equality can paradoxically reinforce problematic power dynamics rather than addressing them substantively. These contradictions demonstrate how institutional structures and cultures can simultaneously promote co-supervision in principle while undermining its effective implementation in practice.

The institutional conundrum centres on maintaining academic standards while fostering innovation in supervisory practices, a challenge requiring structural changes rather than individual adaptations. Polkinghorne *et al.* (2023) argue that successful co-supervision demands deliberate planning, clear role definitions, and ongoing communication to harness its benefits and mitigate its

challenges. Their approach recognises that the tensions inherent in co-supervision can potentially drive innovation in supervisory practices and foster more robust support systems for doctoral students, provided that appropriate institutional frameworks are in place. Grossman and Crowther (2015) offer specific measures to resolve this conundrum, including positively addressing the role of co-supervision in employee advancement, ensuring equitable workload recognition, formalising and recognising informal supervisory activities, developing clear policies and guidelines, and providing proper training and support for novice supervisors.

Grossman and Crowther (2015) acknowledge that the conundrum cannot be resolved without systemic change at the institutional level. The fundamental challenge lies in creating structures flexible enough to accommodate innovative supervisory practices while maintaining sufficient standardisation to ensure quality and equity, a balance that requires reimagining institutional frameworks rather than simply modifying existing ones. This conundrum reveals how co-supervision, while promising significant benefits for doctoral education, demands institutional transformation rather than mere accommodation within traditional academic structures. Furthermore, institutional transformation must centre student voices as primary sources of knowledge about effective co-supervision (Leonard 2001). Frameworks must also account for institutional diversity, recognising that effective practices emerge from dialogue between general principles and local contexts (Nerad & Heggelund 2008).

Theoretical Framework: Triadic Dialectical Coherentism

Utilising complementarity, contradiction, and conundrum as three important epistemological notions, triadic dialectical coherentism provides a theoretical framework that combines these three ideas. This structure is based on and expands upon several well-established philosophical traditions, such as the complementarity principle from quantum physics developed by Niels Bohr (1948), dialectics from Hegel (McKenna 2011) and Marx, (Norman & Sayers 1980), and modern coherentism in epistemology (Olsson 2017; Hage 2013). Triadic dialectical coherentism offers a stable framework for understanding complicated events characterised by viewpoints that seem incompatible with one another and ongoing conflicts. We discuss in the following order: duality that is complementary, contradictions that are generative, conundrums as catalysts, and implications for the study at hand.

Duality that is Complementary

The concept of complementary duality is the first pillar of this framework. This theory posits that views that seem contradictory or incompatible with each other can simultaneously be legitimate and necessary for a comprehensive understanding of complex events. An example of this is Einstein's observations that light is both a particle and a wave stream, which unite the opposing views of Huygens and Newton (Anastopoulos 2008). Einstein's findings showed that both explanations are necessary to comprehensively understand how light travels. Both views are interconnected components of a coherent whole, in contrast to classical dualism, which only offers either/or options. In higher education, complementary duality refers to the acceptance that different methodological techniques, theoretical traditions, and disciplinary viewpoints do not represent contradictory truth claims but rather complementary aspects of a multi-layered reality. Consequently, multiple paradigms or discourses are necessary to explain the unique elements of the same phenomenon, as no single approach can fully capture it (Tambun, Yudoko & Aldianto 2024).

Contradictions that are Generative

Generative contradiction, the second pillar, views contradictions not as logical failures that need to be addressed, but as dynamic tensions that drive the growth of concepts and the generation of knowledge (Holmqvist, Gustavsson & Wernberg 2007). Hegelian dialectics is expanded upon by this concept, which proposes that the sequence of thesis-antithesis-synthesis does not eradicate conflict but instead changes it into more complicated forms (Maybee 2020). Rather than producing paradoxes or necessitating the rejection of one viewpoint in favour of another, generative contradiction emphasises that conflicts between opposing views offer unique insights when properly addressed. This is something that is emphasised by the concept of generative contradiction. In particular, productive conflicts serve as engines of intellectual and practical innovation, especially in fields where complex and multidimensional issues defy straightforward solutions (Chapkis 2010).

Conundrum as a Catalyst

The third pillar of triadic dialectical coherentism rests on the concept of conundrum as a necessary catalyst for further investigation (Pinnegar & Hamilton 2020). Coherentism considers persisting conundrums, aporias, or

unresolved questions important elements that prevent premature theoretical closure and maintain intellectual momentum (Robinson 2019). Conundrums are unpleasant aspects of knowledge systems with an advantage: they encourage ongoing enquiry and discourage premature resolution (Nuckolls 2018). The idea of delayed resolution challenges the conventional academic focus on conflict resolution, as it prioritises the ability to hold differing viewpoints in constructive tension. It is argued that the most intellectually productive stance is not one of complete explanation but rather of skilful engagement with recurring problems (Wessler 2020; Chapkis 2010).

Implications for Epistemology and the Study at Hand

Triadic dialectical coherence leads to three important epistemological consequences. The original stance rejects foundational methods that strive for ultimate certainty and extreme relativism that abandons the goals of coherence entirely. Coherentism evaluates knowledge systems based on their explanatory power and internal consistency, while acknowledging their constant susceptibility to change. Additionally, it alters the definition of expertise, such that mastery of previous paradigms is no longer considered decisive (Olsson 2022). The definition of this new expertise includes the ability to move between complementary views and to discuss the contradictions between them. The most complete understanding of complex phenomena will always require further conundrums rather than resolving every conflict (Hage 2013). We must rely on this method to understand complex phenomena because no other approach provides a sufficient explanation.

The framework of triadic dialectical coherentism is best suited for studying doctoral students' experiences in co-supervision. Co-supervision relationships naturally create complementary perspectives through the supervisors' different expertise and orientations, but they also lead to contradictions through conflicting advice and generate unresolved issues that challenge existing paradigms (Hein & Lawson 2008). The use of dialectical coherentism in co-supervision research allows researchers to investigate supervisory relationships beyond the level of agreement between supervisors. Researchers are given the opportunity to make more thorough assessments through this method. Triadic dialectical coherentism enables researchers to engage in analytic work, emphasising constructive tensions and intellectual development through contradictions, while fostering students' abilities to navigate complex intellectual landscapes full of persistent conundrums.

Methodology as Theory: The Janus Head, the Method of *Currere* and Phenomenology

To conceptualise doctoral students' reflective processes, this study draws on the metaphor of the Roman God Janus, traditionally depicted with two faces - one looking to the future and one to the past (Brady 1985). A third face, looking inward (Agarwal & Malloy 2000), represents participants' reflective and reflexive introspection of their thoughts, feelings, motives, and actions as private and public intellectuals. The Janus three-dimensional perspective aligns with Currere's emphasis on temporal reflection and phenomenology's focus on lived experience, creating an integrated methodological framework for understanding doctoral students' co-supervision journeys (Denzin & Lincoln 2005).

Through the method of '*currere*' and 'complicated conversation' (Pinar 1975; 2004; 2019), the study explores how doctoral students navigate their unique past and present experiences while simultaneously looking toward the future and symbolising the ongoing challenges they face as they negotiate conflicts between their philosophical beliefs, ethical considerations, and institutional commitments during the co-supervision journey.

The method of *currere* allowed for deep introspection and analysis of educational experiences, creating opportunities for students to engage with their past and present backgrounds while considering possible futures (Kanu & Glor 2006; Pinar 1975; 2019). This study's research questions align with Pinar's four-step method – regressive, progressive, analytical, and synthetical, while incorporating phenomenological inquiry. The regressive dimension examine how doctoral students describe and make sense of past experiences that led to their current co-supervision arrangement. Progressive questions explore their envisioned futures and the anticipated impact of co-supervision on their academic development. The analytical component investigate their current co-supervision relationships, detached from temporal influences, while the synthetical questions examine how students integrate past experiences, present realities, and future aspirations to make meaning of the co-supervision journey (Pinar 1975; 2004).

Nsibande (2007) proposes *currere* as an autobiographical tool for supervisors to reflect on and improve their research supervision practices. Nsibande (2007) suggests using *currere* to expose and critique the assumptions underlying supervision orientation, arguing that acquiring knowledge and understanding of best practices requires supervisors to embark on a '*currere*' that encourages investigation of their supervision experience. Smith (2013)

advocates for integrating critical pedagogy with currere to enhance students' and teachers' understanding of the structural and political contexts shaping their experiences. Currere engages with students' personal histories, aspirations, and subjectivities as a self-reflective method of inquiry. While extensive academic work has focused on privileging student and teacher experience to foreground these histories and subjectivities, such work faces criticism regarding its utility for eliciting more systemic understandings of the educative experience (Smith 2013). These studies collectively emphasise the currere method's potential for encouraging self-reflection, addressing systemic issues, and promoting transformation in educational settings, particularly in the context of post-apartheid South Africa (Nsibande 2007; Smith 2013).

In-depth, semi-structured interviews, designed as conversations to elicit rich descriptions from participants who had experienced co-supervision, were conducted to generate data (Patton 1990). To allow participants to feel comfortable sharing their personal experiences, the authors employed an experienced fieldworker to conduct the interviews. Following phenomenological principles (Patton 1990), probing questions were used to deepen responses and clarify meanings, which were captured verbatim, while acknowledging that voices might be 'shaped or constrained by other influences' (Lowe 2007: 12).

The data analysis process followed three key phenomenological steps (Patton 1990). First, epochè required the researchers to acknowledge and bracket personal biases and perspectives. Second, phenomenological reduction involves breaking down the data into its pure form, free from assumptions and intrusions. The last step was the development of a structural synthesis that revealed the essence of participants' experiences. Tesch's steps were followed in the coding process to systematically develop interpretations by breaking down data into smaller components and identifying emerging themes (Creswell 2014).

Participant Selection

Purposive sampling was used to generate data rather than seek representativeness (Leedy & Ormrod 2019). Three female participants were purposively selected for this study: Jenny, Terry and Mbali (pseudonyms). Female co-supervisors supervise all three participants. Jenny and Terry are at the data analysis stage. Mbali has generated the first full draft of the thesis. In the next section, we analyse their experiences.

Triadic Analysis of Co-supervision Dynamics

The data in this section is taken from interviews with three female PhD students named Terry, Mbali, and Jenny. The students described their experiences with co-supervision arrangements from their respective perspectives. Participants discuss a professor and an early-career academic referred to as Prof and ECA, respectively. The data offers insights into how students handle the intricate relationships, power dynamics, and practical obstacles inherent in having numerous supervisors guiding them through their doctoral journey.

Complementary Duality in Co-supervision

In this section, we shed light on various complementary components that, when integrated, constitute a more comprehensive support system for students who are co-supervised. For instance, Jenny observed, “*The two personalities are completely different. ... It also served as a kind of balance, as Prof is stricter than ECA*”. The phrase “*It also served as ..*” shows that having co-supervisors with distinct personalities was advantageous. Specifically, Jenny appreciates each supervision style because she understands that strict supervision offers unique benefits, while lenient supervision provides advantages. Furthermore, she explains that having supervisors with varied styles enhances the educational experience for students. Consequently, the statement also suggests that Jenny had to adapt to different expectations or feedback styles when working with each supervisor and is perhaps more suited to a student who is open-minded and flexible.

Moreover, Jenny recounts that ECA is vocal once the meeting is over: “*When we go outside, that is when she is able to say something, and also, her office is always open*”. As a result, Jenny’s well-being is not affected by the dualistic supervision approach because she knows she has access to both supervisors, albeit in different spaces.

In addition, rigorous academic guidance and emotional support are provided through co-supervision. To illustrate this point, Mbali observed, “*The silent lady is there for me, like emotionally*”. Meanwhile, Jenny notes that the ECA acts as “*a buffer*” when she approaches the professor, which makes her more anxious. In support of these findings, Bitzer and Albertyn (2011) described this dual support system as a multi-layered approach that allows support to be tailored to students’ individual needs. Similarly, the study by White *et al.* (2024) shows that student well-being differs significantly depending on how they deal with the perspectives of their supervisors. In their

research, student well-being reached higher with co-supervision methods than traditional solo-supervision models. Additionally, research (Olmos-López & Sunderland 2017) shows that successful co-supervisor teams implemented defined communication protocols but kept their interactions flexible. Correspondingly, Almlov and Grubbström (2024) report that co-supervisors often practice the hidden curriculum, providing unofficial emotional support outside the formal academic context.

Furthermore, decentralised authority during co-supervision generates a learning environment that promotes intellectual advancement and encourages diversity. As a result, students receive multiple mentoring and advising opportunities through complementary approaches that demonstrate collaborative practices, and consequently help shift traditional academic hierarchies towards more collegial settings. Therefore, our conclusion suggests that a complementary approach can provide support tailored to students' needs and situations.

Contradictions that Generate Growth

The analysis of data reveals multiple conflicts encountered by the study participants. For example, the following statement from Terry says, *“When you get comments from both of them, it can be a little bit confusing because maybe Prof says one thing and ECA says something else. However, I eventually became used to it”*. Specifically, this statement reveals important insights into how co-supervision works. A closer examination of this statement provides a better understanding of the dynamics of co-supervision. Terry noted that conflicting feedback from professors and ECA leads to confusion. As a result, dual supervision models demonstrate their fundamental problem by leading to conflicting instructions due to intellectual and methodological differences. Notably, when students describe conflicting feedback as only *“a little bit confusing”* (Terry), they underestimate the frustration and cognitive dissonance they face when following conflicting instructions from authority figures. In contrast, the statement by Terry, *“I eventually became used to it”*, represents a significant developmental step in which the student has moved from confusion to accommodation while demonstrating growing critical thinking skills and intellectual independence. Therefore, Terry has reached a stage where she successfully combined different viewpoints and crucial feedback provided within complex supervisory contexts rather than simply carrying out instructions.

While positive development is activated by conflict, students with multiple supervisors are under tremendous stress due to conflicting instructions (Hansson & Schmidt 2023; Olmos-López & Sunderland 2017). Additionally, undesired outcomes can be amplified when teaching staff are often forced to supervise areas peripheral to their specialisation due to staff shortages, leading to discrepancies in subject and methodological knowledge that can hinder student progress (Polkinghorne *et al.* 2023).

Contradictions are particularly apparent in sequential feedback procedures, as Terry describes, “*So, the instant I receive Prof’s response, I do not know what to do with it since ECA has not reacted yet... I submit it to her... And after that, at some point in the future, it will be returned to me with remarks*”. The terms “*submit*” and “*returned with remarks*” create a transactional framework that turns students into passive recipients on a feedback conveyor belt rather than active partners in a dialogue-based learning process. Moreover, as the timeframe remains unclear when feedback is promised “*at some point in the future*”, students face unpredictable wait times that can disrupt their workflow and cause delays in the learning process while increasing anxiety levels.

Although this sequential model may be administratively convenient for supervisors, it leads to a fragmented learning experience where the synthesis of feedback is solely the student’s responsibility without the benefit of experiencing a direct academic exchange between experts. Consequently, the statement illustrates how the institutional practices of co-supervision unintentionally create systemic inefficiencies and psychological pressures that complicate the student journey by transforming potentially rich dialectical learning into sequences of fragmented student responses that must be navigated and reconciled independently.

Similarly, through her account of how she balances the conflicting expectations of her two supervisors, Jenny demonstrates the underlying power dynamic while ensuring that she does not offend either of them. Thus, through the model of co-supervision, students learn to manage conflicting viewpoints and expectations, mirroring common academic and professional situations where intellectual debate unfolds amidst uncertainty.

In contrast, Mbali is more accepting of the power hierarchy: “*Prof is the main supervisor for me, so she would lead*”. Regarding this dynamic, Hansson and Schmidt (2023) explain that co-supervision dismantles traditional power hierarchies by distributing authority among multiple mentors and show that Mbali’s positive feedback about unity and support echoes Hansson and

Schmidt's (2023) finding that the supervisory relationship can evolve if this tension is adequately managed.

When analysing how power is exercised in practice within co-supervision relationships, Mbali provides the following description of what happens during a co-supervision session: *"When Prof takes over, ECA became silent, so she would just come in and make one comment, and that's the end of it... when we leave that space... that is where and when ECA would then come to me.."*. This narrative shows how institutional hierarchies can unintentionally suppress significant contributions in formal contexts and force secondary exchanges in informal settings. Mbali's description of the co-supervision session reveals that the professor's dominance leads ECA to remain silent during formal sessions, prompting them to share their ideas in informal conversations afterwards.

Interestingly, according to the students, their impressions of their supervisors are always contradictory. For instance, Mbali says, *"Over time, as I got to know Prof, I think I realised that her bark is much louder than her bite"*. Subsequently, this inconsistency in perception leads to unusual insights as students learn to interact with authority figures on numerous levels. Indeed, this is an example of a generative contradiction, meaning it changes rather than needs to be resolved (Chapkis 2010).

Furthermore, in the following example, Jenny explains how feedback can demotivate and provide clear direction: *"When it comes back and you [see] that oh, they've pulled this thing apart, then it is rather demotivating... But the thing that I really love is that they do offer feedback; there's no room for you to make assumptions"*. Jenny's emotional conflict illustrates the potential for a mutually beneficial coexistence between competing forces without requiring a choice between them. However, it also indicates the need for affirmation or communication from both supervisors before deciding on minor matters. Consequently, the emotionally conflicted response leads to delayed development and reduced confidence in students' own judgement. Paradoxically, the need for supervisor approval produces effects that directly counter the independence that co-supervision intends to encourage. Nevertheless, it serves as an example of how competing forces can co-exist beneficially rather than demanding a solution in favour of one side. We conclude that student well-being can be at stake in co-supervision arrangements even when contradictions are generative.

Conundrums as Catalysts

The data reveal several conundrums. Students report that it is difficult to coor-

dinate input from multiple supervisors in different cases. For instance, Mbali reveals that she feels unsure how to process the professor's feedback when other supervisors have not yet shared their thoughts. Similarly, Terry's observation shows how time lags between successive comments from superiors can unexpectedly drive intellectual development. Terry's confession that she did "*not know what to do with it*" shows the student is experiencing both frustration and cognitive dissonance. Interestingly, the wait time for the ECA to comment after the professor's feedback initially appears to be a procedural obstacle; however, it becomes a necessary space for students to work through incomplete instructions and cultivate their academic voice. However, while seemingly inefficient, the limbo between supervisor input forces students to critically evaluate competing perspectives rather than passively receive instruction. Therefore, Terry's description demonstrates how institutional constraints unintentionally create productive tensions that mirror real-world research environments where definitive answers are difficult to find, and multiple interpretations must be weighed. As a result, the paradox of asynchronous feedback becomes a powerful developmental mechanism that transforms what might be seen as an administrative failure into an opportunity for intellectual maturation as students learn to deal with ambiguity, resolve contradictions, and ultimately move from knowledge consumers to knowledge producers through the gaps in the monitoring structure that might otherwise be dismissed as purely problematic.

Furthermore, the students recognise the collaboration between caregivers but do not fully understand how it works. For example, Mbali felt that "*their relationship needed to be discussed prior to the meeting*", meaning that students need to know the relationship between the co-supervisors. Additionally, Mbali explained, "*On the other hand, I believe that it is something that they planned or that they discussed outside of the meetings*". Consequently, the planning process is a conundrum for students, as they are not privy to it, and simultaneously creates a constructive tension that helps maintain intellectual momentum (Robinson 2019). In other words, they accept that they cannot know.

Moreover, Terry explains the repercussions: "*If one party is not available, there is a bit of a delay and prolongs the study period... it breaks the process and progress*". Evidently, coordination issues between co-supervisors disrupt their progress. In this regard, Polkinghorne *et al.* (2023) refer to the tension between the theoretical benefits of different perspectives and the coordination difficulties as a factor that requires deliberate planning, clear role

definitions, and ongoing communication to maximise the benefits and reduce the challenges.

According to Elbow (1989), poorly managed arrangements lead to a good cop/bad cop dynamic. Specifically, the dynamic shows how students become trapped in power struggles or conflicting expectations due to the supervisors' failure to communicate clearly. Notably, in an increasingly multidisciplinary environment requiring a broad range of knowledge, the difficulty of the situation becomes particularly apparent. Similarly, Almlov and Grubbström (2024) found that co-supervisors regularly become important contacts for students' emotional and psychological problems. However, this happens even though they are not sufficiently trained for this task and do not feel confident enough to seek help from their older colleagues. Consequently, this leads to a paradoxical scenario in which the theoretically strengthened support network in co-supervision arrangements does not function effectively in reality due to communication barriers, a lack of clarity regarding roles, and insufficient preparation for addressing problems unrelated to academia. Therefore, this difficulty requires a careful balance between equalising different perspectives and avoiding decision-making paralysis.

In essence, the development paradox arises from the opposing forces between promoting independent growth and providing the necessary support. Indeed, this is probably the most fundamental conundrum associated with doctoral education. Thus, the challenge remains to provide adequate guidance while avoiding the creation of dependencies and supporting intellectual risk-taking without violating academic standards. Furthermore, two common failures at the formal level that are not addressed are the inequitable distribution of tasks and the lack of recognition of mentors' informal contributions (Grossman & Crowther 2015). According to Almlov and Grubbström (2024), some teams add female co-supervisors without realising it to meet gender quotas for funding applications. Consequently, institutional mandates for gender equality can unintentionally perpetuate existing power issues rather than solve them. However, in this instance, gender quotas are not an issue, as the three students and the co-supervisors are all female.

Implications of the Co-supervision Approach

Co-supervision represents an academic mentoring approach that requires navigating between complementary perspectives and discussing their contradictions (Olsson 2022). Consequently, binary thinking approaches to

academic mentoring encounter difficulties in this type of mentoring. According to Jenny's experience, "*What's also promising about it is that through the feedback, they are actually building us up to a level that we should be at*", there emerges a realisation that the feedback helps them to reach the level expected of them and necessitates the need to maintain a comfortable tension between different views. Therefore, for successful co-supervision experiences, students need to acquire a new kind of competence. Specifically, this competence is not the mastery of a single supervisor's perspective but the ability to switch between complementary perspectives and to deal constructively with contradictions. For example, Mbali captures the attitude for working with co-supervisors: "*Embrace it. There are many distinct personalities among people. Not only are they at various academic levels, but they are also at distinct degrees of knowledge*", emphasising this type of expertise.

In contrast, Grossman and Crowther (2015) insist that institutional system change, rather than individual change, must occur because their research shows that repeated problems reinforce this need for change. Notably, the difficulties with time management and coordination, as well as the lack of clarity in input and process, highlight the fundamental challenge of creating structures that balance innovative supervisory practices with the necessary standards of quality and equity. Furthermore, the experiences shared by the students illustrate how the process of negotiating complementary viewpoints, fruitful conflicts, and ongoing conundrums leads to the creation of an academic identity. When Jenny describes using ECA as "*the go-between*", or when Mbali reflects on how supervisors "*shape me, they give me a lot of information*", they are articulating what Hein and Lawson (2008) describe as that which enables students to participate in analytical tasks that emphasise constructive tension and intellectual growth through contradiction.

In their study, Johansen *et al.* (2019) emphasise the importance of ensuring that roles and responsibilities are clearly defined and documented from the outset. Although power imbalances may still exist in academic relationships, they can be mitigated through open and honest communication and formal agreements. Similarly, in discussing the developmental dilemma, Bitzer and Albertyn (2011) argue that effective co-supervision requires establishing defined procedures, introducing accountability mechanisms, and explicitly allocating tasks among supervisors. Indeed, their strategy highlights that the potential benefits of co-supervision for student development cannot be realised without explicit structural support to help students navigate the inherent complexity of multiple supervisory relationships. Therefore, it may be argued

that co-supervision support is designed to help students navigate multiple perspectives.

Limitations of the Study

This study acknowledges several important limitations. The purposive sample of three female doctoral students, while enabling rich phenomenological inquiry, limits generalisability across diverse student populations. The gender homogeneity of participants and supervisors prevents examination of cross-gender dynamics in co-supervision. The focus on students at advanced doctoral stages means early-stage relationship formation experiences are not addressed. Additionally, including only student perspectives, without supervisor voices, provides a one-sided view of co-supervision dynamics. Finally, the single South African university context may limit transferability to institutions with different resource constraints and academic cultures, particularly between settings in the Global South and the Global North.

Conclusion

The triadic approach of complementarity, contradiction and conundrum in co-supervision demonstrates how these elements effectively represent the complex role interactions and tensions in doctoral supervision relationships. Our research shows that conflict in co-supervision can lead to intellectual growth and the development of new institutional practices. This approach focuses on the productive potential inherent in these difficulties rather than viewing them as problems to be solved.

The key to effective co-supervision is building institutional structures and human capacities that productively endure contradictions and conundrums rather than trying to eliminate or solve them all. According to Wessler (2020) and Chapkis (2010), intellectual productivity develops through skilful interaction with recurring challenges rather than through full explanation. The experiences of Terry, Mbali, and Jenny show the difficulties and potential of this method.

Our three-headed approach, reflecting the ancient Roman god Janus, enables us to gain a deeper understanding of the impact of co-supervision on doctoral education. The head of complementarity illustrates how synergistic potential, distributed expertise, and balanced power relations encompass current movements in interdisciplinary research. The head of contradiction exposes

fundamental conflicts between established authority structures and informal dynamics, as well as differences in research methods and support requirements, highlighting the ongoing difficulties faced when operating within conventional frameworks of care. The conundrum head reveals the creative potential of these apparent contradictions by suggesting innovative methods to transform tensions into opportunities for growth.

Adopting this three-headed perspective makes the apparent problems the basis for innovative solutions. Several perspectives suggest that innovation in supervision practice stems from generative tensions arising from the need to balance distributed authority, manage the flow of communication, integrate diverse perspectives, and foster student independence. Undoubtedly, the success of future co-supervision depends on the ability to integrate multiple perspectives rather than prioritising a single viewpoint. Supervisors and students should actively collaborate to develop spaces where multiple perspectives can be effectively shared. The complexity and interdisciplinary nature of modern research make a three-headed vision more important than ever.

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Supervision in Transformation Indaba Opportunities

Chapter 11: A Critical Review of Different Supervision Approaches and Styles in the Social Sciences: Aspiring Supervisory Reflections on African Languages

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Abstract

The success of postgraduate supervision is affected by various factors. Many students enter the postgraduate education environment without sufficient knowledge of research methods. They may not be able to sail through the postgraduate phase without acquiring the required skills to conduct postgraduate research. And adequate support. This paper critically reviews the different approaches and styles that supervisors can adopt in African Languages postgraduate research. A qualitative approach located within the constructivist paradigm was adopted. Data for this study were collected through documents review. A search for effective postgraduate supervision literature was conducted to identify relevant research published from 2015-2024. The following search words were used on various search engines effective supervision, constructive feedback, postgraduate research, and higher education. Reference lists of retrieved publications were also searched for other additional sources. The theoretical framework of this study is Developmental Supervision Theory by Glickman (1980). Findings of this study suggest that supervisors need to provide the type of supervision, which ensures that the students produce work of a high standard, thereby increasing throughput rates. It also revealed that a group supervision (supervision cohort) and bringing on board researchers with different skills enhances the students' understanding.

Keywords: Throughput, constructive feedback, effective supervision and HE

1 Introduction

The success of postgraduate supervision is affected by various factors. Many students enter the postgraduate education environment without sufficient knowledge of research methods. This chapter critically examines supervision approaches within African Languages postgraduate research, a field often marginalized in broader Social Sciences discourse, to identify culturally responsive strategies. Postgraduate supervision is a key practice at universities worldwide and the pinnacle of academic engagement (Wisker 2012:2). In an era where the pressure on higher education institutions to contribute to the knowledge of economy is ever increasing, postgraduate supervision practices that focus on expanding student throughput rates and research outputs are becoming key in moving towards global competitiveness. The production of postgraduate students is a national priority, as South Africa needs a new generation of researchers to drive growth and development (De Lange, Pillay & Chikoko 2011:16).

Supervision goes beyond adherence to the norms and expectations of a discipline; it speaks to human relations between a student and a supervisor. In other words, a supervisor needs to be cautious not to treat supervision as a research project where the student is reduced to a passive recipient of the supervisor's input. This calls for the supervisor to be critical in his or her approach to supervision. Being critical in this respect entails reflection on how the supervisor manages the relations with the student. As Scott and Usher (2011, cited in McKenna *et al.* 2017) argue, critical approaches to knowledge construction relate to a range of approaches that problematise the universality of knowledge construction. Supervision in African higher education presents unique challenges and dynamics shaped by historical, social, and institutional factors. Studies by Mahlomaholo (2013) and Samara (2006) highlight critical issues such as resource constraints, limited supervisory capacity, and the influence of cultural expectations in shaping supervisory relationships. By fore-grounding these perspectives, this paper positions its argument within the broader context of African higher education, emphasizing the need for context-sensitive approaches to supervision that directly address these specific challenges.

This chapter critically reviews different approaches and styles that supervisors might adopt in their respective discipline or faculty. The discourse of different approaches and style that supervisors might adopt is done through outlining the kind of supervisors. It is a known fact that the continuous act of reflection is grounded in reflexivity, and some studies like that of Darawshah (2014) has classified reflexivity into introspection, intersubjective reflection,

mutual collaboration, social critique, and discursive deconstruction. According to Darawsheh (2014:560), ‘reflexivity refers to the continuous process of self-reflection that researchers engage in to generate awareness about their actions, feelings and perceptions’. In qualitative research, proponents of reflexivity claim that its use in research promotes rigour, reliability and validity. It is further believed to improve ‘transparency in the researcher’s subjective role, both in conducting research and analysing data’. While this review engages with the Social Sciences broadly, we focus on African Languages due to their unique supervision challenges, such as limited availability of scholarly resources in indigenous languages, difficulties in aligning Western theoretical frameworks with African epistemologies, and the marginalisation of African languages in academic publishing. These challenges often result in supervisors and students navigating complex questions of translation, contextual adaptation, and knowledge validation, which are less pronounced in other disciplines.

2 Defining Supervision

In African Languages research, supervision often involves additional layers of negotiation, as students and supervisors navigate indigenous knowledge systems alongside Western academic frameworks (Mkhabela 2019). Postgraduate supervision has garnered significant attention globally, with calls for transparency, equity, and rigor (Sidhu *et al.* 2013). Various authors have offered diverse definitions of the supervisory process. According to Loganbill and Hardy (1983, cited in Okeke-Uzodike 2021), supervision refers to a formal process based on the relationship between supervisor and supervisee (candidate), where the supervisor’s role is to help the supervisee acquire appropriate professional behaviour and competence in professional activities. Lee (2010) argued that supervision means discipline and oversight of work. A recent definition within the same context posits that supervision is a two-way interactional process that requires the student and the supervisor to connect intentionally with each other and within the spirit of professionalism, respect, collegiality, and open-mindedness (Ismail, Abiddin & Hassan 2011).

Given these definitions, Brew (2001: 272), opined that a postgraduate supervision could be a personal journey of discovery. It is a relational and empowering process (Tian & Singhasiri 2016) because the supervisor is deemed the closest person who can mentor and provide the necessary support and guidance to the student in need (Cryer & Mertens 2003; Ellis 2001; McAlpine & Weiss 2000). Acknowledging this, Tian & Singhasiri (2016) noted that

supervision occurs under a hierarchical relationship and provides a unidirectional mode of knowledge transfer from the powerful supervisors to powerless supervisees. The mutual outcome of such a relationship not only improves the supervisor's knowledge capacity but leads to transformation and the creation of a strong personal identity for the supervisee as a researcher and professional. Supervision, therefore, entails various aspects that determine the supervisor-supervisee relationship. Mapesela and Wilkinson (2005: 2, cited in Cekiso *et al.* 2017) point out that supervising as a scholarly practice might be effectively promoted where academics themselves are closely involved in research, but also when they reflect, write and publish on their supervisory experiences, seek student feedback and allow peers to critique their work.

3 Theoretical Framework

The theoretical framework of this study is Developmental Supervision Theory by Glickman (1980). This theory provides a framework that facilitate the understanding of how supervisors should go about with their supervisory approach while trying to meet the needs of the students in postgraduate studies, even for students in African Languages research. In this theory, it was suggested that there is need for supervisors to modify their behavior and the strategies they use in supervising students, in order to suit the developmental stages of the students, and importantly, they should also focus much on promoting growth and skill acquisition (Wu 2017). This theory believes that students in postgraduate studies come into a learning environment with various levels of readiness and diverse research skills.

According to Gordon (1990), Glickman's developmental supervision theory outlined three main approaches for supervisors, and they are based on the conceptual level (CL) of those being supervised. These three main supervisory approaches are directive, collaborative, and nondirective supervision. In the directive supervision, there is more prescription involved, and it involves the standardization of actions for students that have lower conceptual level may need more guidance. As students begin to advance, the supervisor will then adopt the collaborative approach. In this approach students are now engaged in negotiations and problem-solving activities. For students that are highly advanced, the non-directive supervision approach is applied as it allows for greater autonomy. In this approach, the supervisor mainly offers reflective feedback and encouragement.

This phased approach directly aligns with the goals set by Glickman.

These goals majorly centers on enhancing cognitive growth and problem-solving abilities through the gradual shifting of responsibilities from supervisors to those that are being supervised, which in this context, are the students. Sonia (2022) noted that the developmental model gives supervisor's the opportunity to modify and direct their methods towards the background and experience of the students which in the long run, enables a long term professional growth for them which is very necessary because the ultimate aim of the developmental supervision is to actually empower students to become independent researchers who are capable of producing works that are of very high quality.

Furthermore, Glickman's framework is being supported by recent findings like that of Muda *et al.* (2020) where they developed a seven-stage behavioral supervision model that was based on the developmental supervision theory. In their model, they included stages like listening, presenting, negotiating, and standardizing. They were certain that these stages contribute massively to the systematic of students as it involves structured support framework that is important in enhancing an effective educational outcome. This is directly aligned with Glickman's assertion that developmental supervision is very effective in enhancing effective outcomes for students since it adjusts to the needs of individual students and guides them through their journey of research. Generally, in the context of postgraduate research this framework helps students become independent scholars and easily navigate the very challenges faced in the process of conducting research. For example, when students conduct their research in isiZulu, they often face the challenge that most theoretical frameworks are written in English and are grounded in Western epistemologies. Such theories do not always account for African worldviews, cultural contexts, or indigenous knowledge systems, making it difficult for students to apply them meaningfully in their research. This mismatch not only limits the relevance of the theories to local realities but also perpetuates epistemic dependency on Western scholarship. As a result, there is a pressing need to develop, document, and promote theoretical frameworks that are rooted in African languages and perspectives, so that research conducted in isiZulu and other indigenous languages can be both academically rigorous and contextually relevant.

4 Methods of Data Collection

This paper critically reviews the different approaches and styles that supervisors can adopt in African Languages postgraduate research. A qualitative approach located within the constructivist paradigm was adopted. Data for this study were

collected through documents review. A search for effective postgraduate supervision literature was conducted to identify relevant research published from 2015-2024. The following search words were used on various search engines: effective supervision, constructive feedback, postgraduate research, and higher education. The search engines consulted to gather data included Google Scholar, Web of Science, ERIC, JSTOR, and Scopus. In addition, the Southern African Journal of African Languages was reviewed. Only articles written in English were considered, as there is limited scholarship published in isiZulu on supervision in higher education. The reference lists of retrieved publications were also searched for additional sources. Out of the 23 peer-reviewed articles initially collected, only 15 were found to be directly relevant. Existing literature was used to create themes of important components to consider in the postgraduate supervision framework. Thematic analysis in this research was theoretical, where the focus was on coding towards themes to answer a specific research question, driven by the researcher and her concerns (King & Brooks 2018:10). A total of 15 sources were analysed to create themes. The emphasis was on identifying patterns in the data that are important or interesting and using these as themes to address the research question (Maguire & Delahunt 2017:3353). Thematic analysis was conducted using a hybrid coding approach, combining both inductive and deductive methods. Initially, codes were generated inductively from the data to capture emerging themes, while deductive coding was guided by existing theoretical frameworks relevant to supervision in African higher education.

5 Presentation of Findings

Data analysis yielded five main themes: The act of kindness, Timely and constructive feedback, Good Supervisory Relationship, Cohort Supervision, Proper Guidelines, monitoring and collaboration. These themes reflect approaches and styles for effective postgraduate supervision.

5.1 The Act of Kindness and Trust

The act of kindness and trust Kindness is generally regarded as a common everyday word, but in view of Binfet & Passmore (2019), it is a multifaceted, distinct and complex construct imbued with deep meaning and far-reaching ramifications on both an individual and a social level. In the SAGE encyclopaedia of lifespan human development, Israel and Abramson (2018) defined

kindness as a general inclination or tendency to be warm and affectionate, and to show some elements of concern, charity, and cooperation. Similarly, trust is considered a vital component in building relationships. Accordingly, Mayer, Davis and Schoorman (1995; Okeke-Uzodike 2021) defined trust as ‘the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the one instilling the trust (the supervisor, in this case), irrespective of the availability of any control measures’. Research studies within the academic environment have shown the centrality of trust as a key component in the capacity development of postgraduate students, knowledge innovation and creation (Robertson 2017, cited in Okeke-Uzodike 2021: 1176). Trust between the supervisor and the supervisee develops as an emergent state being influenced by factors such as interactions, context, situation, motivations, and thoughts involved in the supervision process (Burke, Sim & Lazzara 2007). In addition, Ten Cate (2007) noted that trust includes quality care that reflects a dimension of competence beyond observed ability.

Mkhabela and Frick (2016) argued that kindness and trust represent the mutual core aspects that define student-supervisor relationships, while Mantai and Dowling (2015) posited that kindness and trust within the pedagogy reflect as an acknowledgment. From my experience as a post graduate student with my supervisor the enactment of kindness that my supervisor provided me with the necessary help to address the assignment and in conducting a session with her to help her prepare for examinations. The stance of Cole-King and Gilbert (2011), who defined kindness as being sensitive to the distress of others with a commitment to try and do something about it (Okeke-Uzodike 2017). Act of kindness and trust from supervisor in my experience gave me the courage to excel in the work, assignment and test that I was given because I was shown the act of kindness and trust. When someone assures you and tell you that they trust you specially when its exam time and you need to do well. It just gives you that power as a student and strength to excel.

5.2 Timely and Constructive Feedback

Communication and feedback, whether in writing, oral, online or in combination, can only be effective if the message that the supervisor wants to convey corresponds directly with how the student perceives that message. In a diverse South African context, feedback and communication between student and supervisor may be in a language that is in neither the person’s mother tongue

(Bell 2007) and can very easily be misinterpreted (Batane 2010). Good communication skills are therefore essential in order to engage with students on a face-to-face basis, as well as within the online environment (Betts 2009, cited in Nurie 2018: 540).

Good quality feedback to students is essential (McCallin & Nayar 2012) and should alert the students to the areas in their work that need improvement. This should, however, also nurture the student by identifying and praising positive features of the work and providing constructive advice on how to improve in the areas of weakness (Wolff 2010). Critical and constructive feedback should be ‘delivered and received in a manner that contributes to an educational relationship’ (Li & Seale 2007) without provoking resentment, resistance, defensiveness, hurt feelings, shame or a sense of failure. It should be non-judgemental, appreciative of good work, as well as identifying problem areas, and provide options for change (Hamid & Mahmood 2010).

The relationship between student and supervisor influences how students perceive feedback and therefore the affective relationship between supervisor and student is important (Clynes & Raftery 2008, cited in Nurie 2018: 524). Feedback should be carefully planned. Questions can be asked to encourage critical thinking, rather than simply pointing out changes which may need to be made (Formeris & Pedan-McAlphine 2006, cited in Nurie 2018: 524).

Whether feedback is given face-to-face or via electronic media, the key to the success of feedback and its acceptance is the commitment of the supervisor to support the student (Holberg 2008). The basic principles of constructive feedback and communication thus remain the same, although the medium might be different. In the face-to-face environment, non-verbal communication plays a very important role that is often compromised in the online environment. In the virtual and online world, the body language of neither the supervisor nor the student is visible (Betts 2009) and the nonverbal message can become lost in translation. Online communication skills are a very important supervisory attributes in providing appropriate feedback.

5.3 Good Supervisory Relationship

Supervision is an inter-relational process, including interior and exterior factors as well as individual that occur between student and supervisor. The bond that develops between them depends on how well they manage their relationship (Abiddin 2007). Supervision requires professional commitment, as it is an

intensive form of educator-student engagement. The multiple layers of the supervisor-student relationship need to be recognised and engaged with for a successful outcome to be achieved (van Rensburg *et al.* 2016).

Halse and Malfroy (2010) argue that doctoral supervision requires specialised professional activities that comprise five features: the learning agreement, habits of mind, intellectual expertise, technicalities and contextual expertise. Most of the supervision activity must be supported with supervisors' input (Abiddin & West 2007). There are series of tasks and responsibilities that should be considered (Ismail *et al.* 2014). How a supervisor works depends on the range and depth of supervision concept that he/she possessed. A vital component of academic endeavour, the supervisory relationship between research students and their supervisor shapes students' scholarly growth and success. Students frequently negotiate a complicated web of expectations, assistance, obstacles, and interactions with their supervisors within this dynamic relationship (Mohammad *et al.* 2024).

5.4 Cohort Supervision

Learning within the cohort is based on the theory of constructivist learning, where learning is seen as an active process to promote understanding, based on individual and socially shared experiences (Van Biljon *et al.* 2014:167). Cohort supervision enables students to progress through their studies as an interdependent collective that are, so that all members of the group can benefit simultaneously from the learning experience (Santicola & Morris 2013:253). This supports the view that engagement in the cohort enables group-work, the sharing of ideas and support development (Wisker *et al.* 2007:309). Specifically, cohort supervision helps participants of that group to remain motivated, maintain momentum, comment on work in progress, and receive critique on their research that may support progression. Within a cohort supervision construct the emphasis is on support, since students are at the same stage of their research journey and are grappling with similar issues.

To promote progression, the aim of cohort supervision is to encourage peer learning and promote the provision of regular feedback from peers and supervisors; allowing students to learn from experiences and the viewpoints of others (Agné & Mörkenstam 2018:669). The structure provided via cohort supervision may stimulate creativity and make it easier for students to engage; thereby reducing academic isolation (Samara 2006:1116).

5.5 Proper Guidelines, Monitoring and Collaboration

Any supervision process should follow a certain guideline to ensure an effective supervision, which needs to be discussed beginning of the supervision. Proper guideline, monitoring and collaboration with their supervisor are at utmost important. Any supervisory process needs to acknowledge the differences between student-supervisors' roles to enhance research skills (Ismail *et al.* 2014). Monitoring of the process is significant to identity challenges and obstacles as early as possible and to ensure that the student is on the right track. Supervision process begins when student identify the supervisor based on the field of specialisation. Supervisor decides whether to accept or decline, which may be influence by various factors, such as relevance of the proposed study, workload etc. Setting up of proper guidelines and expectations should be done at the beginning of a supervision process. This is needed so that clarity will be ensured especially in areas like roles, responsibilities, schedules for meetings, and timelines for submission. Continuous monitoring of the progress of students is necessary in identifying challenges very early and hence provide support that is adequate in addressing such challenges. Additional resources like mentorship programs, writing retreats and collaborations platforms which assist and enable students develop their research and writing skills should be provided by institutions.

The second stage is to discuss the proposed topic, objectives and research questions. When the student and the supervisor reach a common ground, the third step is to sign a memorandum of understanding before starting the process of proposal writing. Many universities have introduced the process of proposal defence that the student needs to undergo before proposal serves to different ethics structures. The supervisor needs to monitor the whole process, doing back and forth with the student and internal ethics structures until the student proposal is approved. After that the monitoring will be between the supervisor and student. Van Rensburg *et al.* (2016) argues that the supervisory agreement should be negotiated within the framework of institutional requirements. Essential aspects of this agreement include, accessibility of the supervisor; regularity of meetings (whether face-to-face or via other media); preparation for such meetings and the timeline for submission of written drafts; responsibility for keeping a record of meetings; expected targets and timetable; assistance from other sources such as writing centres, librarians and computer literacy programmes (Van Rensburg *et al.* 2016).

Eventually, supervision should benefit both student and the supervisor,

not only in terms of student being able to complete the study but also in terms of development as a researcher. Therefore, collaboration becomes more crucial. Any research report requires sound academic writing (Wolff 2010). Based on the framework for supervising students as proposed by Lee and Murray (2015), the student will first have to understand the principles of academic writing and acquire the skills through simple tasks and experiences before those of scientific writing. When students collaborate with their supervisors, they quickly develop the scientific writings skills.

6 Recommendations

Several recommendations have been made based on the findings obtained from this research. The recommendations are made to enhance the appropriate supervision of postgraduate students in African Languages and other related disciplines. Here are the recommendations Supervisors should provide multi-lingual feedback options (e.g., oral feedback in students' primary African languages) to bridge comprehension gaps in academic writing. It is also important to encourage students to employ theories that reflect African epistemologies to advance the Africanisation and decolonisation of the curriculum.

Supervisors should make sure that they consistently provide feedback to the students, and this feedback should be timely, constructive and non-judgmental. The students should be given appropriate guidance that is clear and actionable, especially in cases where the students come from different linguistic backgrounds which may give room to communication barriers. The feedback given by supervisors should be given in a manner that promotes learning and confidence in the students.

It is necessary for supervisors to cultivate and nurture an environment of kindness and trust in their dealings and relationship with postgraduate students. This is very essential in making the students feel comfortable, while also having the feeling of being supported and empowered to succeed. For this to be very effective, supervisors should try to always engage in communications that are sensitive and empathetic in order to help them recognize the different cultural and academic backgrounds of the students. The trust between the supervisors and their students can be built when there is consistent positive reinforcement, and provision of an environment that is non-judgmental but rather supportive for academic growth.

Academic departments and universities in general should give priority to the development of supervisory relationships that are strong and very

professional. It is imperative for supervisors to balance intellectual relationships by enhancing them further with emotional and psychological support, because all these are necessary for student's to thrive in the academic environment. This is achieved by firstly offering training programs and workshops to supervisors in order to equip them with necessary skills needed to effectively manage this relationship, especially in academic environments that are very complex. To ensure the effectiveness of those trainings and workshop, it is important there are conducted in both language (English and isiZulu).

Last but not the least, for postgraduate studies, universities should adopt the use of cohort supervision model especially within specific disciplines like the African Languages. This approach is very useful because it enables the students to benefit through different media such as peer learning, shared experiences, and mutual support. Cohort supervision is very useful in the sense that it reduces academic isolation, it motivates students to not lose focus but stay on track, and likewise, it fosters collaborative feedback mechanisms. This supervision model can be achieved and fully functional when faculties provide the opportunity for a structured cohort-based learning and supervision with the aim of enhancing the overall engagement and progression of the students. Institutions should mandate biannual supervisor training on: Delivering constructive feedback in cross-cultural settings, Recognizing implicit biases in assessment, and Mentoring strategies for non-native English speakers.

7 Conclusion

This article is a critical review of different supervision approaches and styles in Social Sciences. Supervisors need to provide the type of supervision which ensures that the students produce work of a high standard which enhances throughput rates. They need also to know that they have a huge impact on the supervision, they are not just doing their work, but they are influencers to a successful supervision. This paper critically reviewed different approaches and styles that supervisors might adopt in their respective discipline or faculty. Upon critical reflection, we conclude that for supervisors to support vast numbers of underprepared students entering the postgraduate sphere, alternative supervision approaches require exploration. Individual supervisors no longer have the capacity to supervise large numbers of students by relying solely on the apprenticeship style. Different needs of students, who demand engagement and attention, and who are used to collaborating via social media, require supervisors to reconsider the ways in which they supervise. According to

Mahlomaholo (2013:389), embarking on an alternative supervision approach such as cohort supervision may be very difficult 'as it demands that we step out of our operational comfort zones and create meaningful interaction with local communities through debate and negotiation'. It was found that the act of kindness and trust, Constructive feedback and towards emancipation approach are styles that supervisor must consider for an effective supervision.

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The authors declare no potential conflicts of interest with respect to the research.

Author's Contributions

Both authors contributed equally to this chapter.

Ethical Considerations

This article does not contain any studies involving human participants performed by the author.

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Chapter 12: Essential Elements of Support for Effective Supervision and Well-being of First-generation Postgraduate Students: An Autoethnographic Perspective

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Abstract

This article is a contribution to the scholarship on supervisory support aimed at first generation post graduate African students' well-being in South African universities. Whilst there is a plethora of studies on supervisory models, styles and practices, there is a distinct paucity of research on personal and academic support provided when a post graduate student experiences a challenge/s that threaten progression and timeous completion of the post graduate study. This paper attempts to fill the gap on support as epistemological access. The discussion is located within the supervisor student relationship (SSR) and I offer an autoethnographic perspective on supervisory support as a thread of epistemological access underpinned by an intermediate to strong supervisory style, an 'ethic of care' (Tronto 2020) and the notion of a 'psychological contract' (Cureton 2016). I reveal my attempts to support students' mental well-being whilst encouraging post graduate students towards academic success. My reflections and reflexivity distil from my supervision experiences and students' digital and written feedback which establishes what comprises essential elements of support for their positive well-being. I present a layered framework of my supervisory selves for effective supervision including a triple vignette of support (care, concern and collaboration). I also reveal my commitment and contribution to 'technical generativity' (Kotre 1984) in developing the next generation of African academics. I conclude with theoretical insights on staff and students' mental well-being and the construct of 'underprepared supervisors' for first generation post graduate students in higher education.

Keywords: first generation, care, post graduate students, supervision, auto-ethnography

Introduction

There is an abundance of literature on effective / quality supervision for post graduate students for good reason. A significant argument has been that preparing the next generation of academics is a key role of supervisors in contributing to developing the knowledge economy (Govender & Markus 2025; Lemmer 2016) but a more pressing concern should be that of these students' success in university contexts where they are 'first generation'. Ngulube (2021) asserted that whilst there is a substantial body of research internationally on post graduate supervision practices, in South Africa by comparison, it is an under researched field. Indeed, ethnographic contributions have aimed to mine into South African post graduate supervisors' thinking about their pedagogical practices (Maistry 2015; Lemmer 2016; Govender & Markus 2025) but studies on post graduate students' well-being is limited save for a study by Maritz (2024) on the COVID-19 pandemic. The need for further research and critical reflection is relevant because the pandemic has passed but the widening of access in South African public higher education institutions (HEIs) continues which has resulted in large numbers of 'first generation' African post graduate students who now occupy public higher education. Without epistemic/epistemological access, their success is limited (CHE 2024) with repercussions for the South African economy. The question that needs to be addressed is 'What are the elements of support for effective supervision of post graduate students when they experience a challenge/challenges?' This article is thus a contribution to the support scholarship for effective supervision of first generation post graduate students for success. I embed post graduate students' positive mental well-being within the discourse on effective supervision.

Public HEIs in democratic SA, propelled by social justice imperatives and the need for equity of outcomes for African students, have foregrounded research into first generation undergraduate students in their first year of study. The result of neoliberal influences on institutions have unfolded as a plethora of research investment into studies on first year undergraduates given concerns by the Council on Higher Education (CHE) on first year drop out and undergraduate throughput rates however post graduate throughput and drop-out rates should also be of equal concern (CHE 2022; 2024) and as a priority on the

institutional agenda. These very same neoliberal influences on institutions unfold as significant pressure on university supervisors to ensure that their students complete their studies in the minimum time period with performance management repercussions for supervisors when this is not met. Thus, the pressure on supervisors to effectively supervise post graduate students is immense, affecting their mental well-being. This pressure has contributed to different models of sharing supervision beyond the master-apprenticeship (Ngulube 2021) to cohort (Maistry 2015), community and small groups (McKenna 2016; Nkoane 2014). Despite these innovations, an underlying thread since I began supervising has always been: What constitutes essential elements of support for postgraduate students' success when they experience challenges in completing their studies? The supervision contract crafted by the institution defining the SSR offers some inroads however I have not been convinced that this is a substantial document for student support given my experiences with first generation students. Interestingly, Ngulube (2021: 255) reminds us that supervision practices are poorly theorised and not well understood and makes a call for supervisory pedagogies and herein lies my other contribution which I hope will assist in strengthening the supervisory contract.

The paper is structured in the followed way: I begin with the grand discourses on supervisory styles which establish what could be an essential element in supervision whilst the next section discusses selected key narratives from the quantity and quality scholarship on supervision practices highlighting another element, namely the value of the supervisor's characteristics. Indeed, questions about whether the supervision quality is good/ effective (Nulty, Kiley & Meyers 2009; Dimitrova 2016) or not, have endured in the scholarship and these could untangle caveats of essential elements of support for effective supervision. I unpack the current narratives attached to the widening of access into public higher education in SA and then I present a combination of personal and academic elements of support required by my students drawing on my recent supervision of postgraduate students from 2020 onwards. Using a qualitative autoethnographic approach, I reflect on my supervision extracting some critical vignettes of support for postgraduate supervision success of the students. Distilling from this, I present a framework of essential academic and personal elements of support for my students who experience challenges during the course of their study. This can be used for discussion in workshops to capacitate early career supervisors for institutional planning in addition to strengthening the supervision contract, namely the Memorandum of Understanding between the supervisor and student.

Supervisory Styles

There are numerous supervision styles but Spear (2020) distils these into 3 main supervisory ones based on the supervisor's interactions with students: strong, weak and intermediate. Additionally, there can be a multitude of variations in each of these categories. For Spear (2020), a strong interaction is most evident where there are laboratory experiments and students meet with the supervisor to plan, undertake the experiments, and monitor the outcomes. At the opposite end of the continuum is weak interaction. This occurs when the supervisor and student have an initial meeting and thereafter the student works independently most of the time with very little input from the supervisor until submission of the draft thesis. In this supervisory style, the student has to be self-sufficient. The intermediate supervisory style and variations of this style is the most common and unfolds where there are regular meetings with the consent of all parties: supervisor and student. The supervisor is engaged in critiqueing the student's work at regular intervals and drafts of various chapters are submitted which progressively develops the study until timeous submission of the thesis.

It's interesting that Spear at no point, alludes to what could be a challenge/s in any supervisory style which may derail the progress of the student, and herein lies my contribution via this article, what is the nature of the support provided to students by the supervisor, when a student experiences a challenge/s that threaten his/her progression and timeous completion of the post graduate study. Erikson's theory on human development resonates with the many crises that human beings face which they have to navigate successfully before progressing to the next level of development. He explains that a crisis is 'a crucial period of increased vulnerability and heightened potential for development' (Erikson 1978:05). This has resonance for postgraduate students who are navigating studies and they don't have the cultural capital of their parent's experiences of university life to help them navigate challenges, making them first generation post graduate students. They may experience this challenge/s in any post graduate study. Students' mental well-being is important during times of crises and Maritz (2024: 02) explains that 'Mental health serves as the foundation for achieving comprehensive well-being' and the value of care: 'Care acts as the mediator that links mental health to the supervisory process'. Tronto's ethic of care (2020) model, underpinned by reflexivity, is a contribution to the 'nature of care, ethical responsibility and social justice'. The SSR is an important influence in the mental health and well-being at postgraduate level (White *et al.* 2023) of both the staff and students.

Thus, in the context of students in massified public HEIs, how does the supervisor support and encourage the majority African postgraduate students towards success and steer students away from possible drop out given the recent CHE (2022 2024) statistics on first generation students facing epistemological access challenges and a multitude of socio-economic challenges as well.

Supervision: The Quantity Discourse

Encapsulated within the quantity discourse of supervision, lies the number of post graduate students which an institution allocates to a supervisor as part of the workload. This is an interesting caveat of the greater supervision discourse because it varies across institutions locally influencing the quality supervision discourse as it impacts on the time available for the supervisor to provide support to each student. Carter and Kumar (2017) have noted that students and supervisor are under immense pressure to complete timeously. Spear's study (2020:07) did draw attention to feedback as being important and a supervisor's workload can influence how often a student receives feedback. Spear notes the importance of 'regular and appropriate contact', and this aligns with intermediate student- supervisor interactions, as being necessary for effective supervision. Studies have found that students have been unhappy with their supervisors when they were too busy with teaching and have too many students (Spear 2020). These findings link to Cureton's concept (2016) of a 'psychological contract' but he references this with the institution. It is applicable to the supervisor who is a representative, acting on behalf of the institution. Spear's findings (2020) do flag that the workload of academic staff can be overwhelming as supervision is just one aspect of academic staff life. Spear (2020:09) also warns that 'constructive and timely criticism' impacts on handing in a thesis on time. Within the literature on supervisory styles, there is a distinctive gap about the nature of student- supervisor relationship (SSR) that hinges on interactions for the student's mental well-being during a challenge/s faced by the student, although the supervisor's characteristics and attitudes are viewed as important for effective supervision (Buttery 2005). The same critique applies to the discourse on the supervisor's characteristics and how this can facilitate the students' mental well-being in times of a personal crisis. Studies on the supervisor's characteristics, attitudes and a pedagogy of care embedded within the discourse of numbers (number of students for supervision, number of modules to teach, number of students graduating timeously etc.) signal an important focus as it forms the foundation of the SSR.

Supervisor's Characteristics, Attitudes and Supervision Support

In respect of the quality of supervision, Buttery *et al.* (2005) expresses the valuable role of the supervisor in ensuring student success. An interesting caveat of the supervision quality discourse emerges from the work of Liang *et al.* (2021) who undertook a study on post graduate students' well-being and the student supervisor relationship (SSR) which revealed insights on first-generation students. Liang *et al.* (2021: 273) revealed 'it is more difficult for first-generation students to establish sound SSR than non-first-generation students. Additionally, a good SSR is more important for first-generation students' positive well-being'. These findings are significant because they place focus on supervisors needing to strength the student supervision relationship for first generation postgraduate students and to offer greater support to towards them achieving 'positive well-being' (Liang *et al.* 2021: 273). Australia faces a similar battle of post graduate first generation student success, upon widening of access into universities for indigenous students and this situation resonates with that of first generation African students in South Africa. Andersen *et al.* (2021) asserted that indigenous post graduate students do depend on their supervisors for support and understanding for their overall well-being and later Andersen *et al.* (2022) emphasized fears for the mental health and well-being of indigenous students. Pham *et al.* (2025) also researching supervision have called for the strengthening of student support for indigenous students.

There are different forms of support that could contribute to this well-being but Liang *et al.* (2021) don't venture this far. Overall *et al.* (2011) in Chang *et al.* (2025:02) explain two types of support for post graduate students: academic and personal. Academic support refers to assistance provided by supervisors in relation to students' research tasks including helping postgraduates establish clear goals and expectations, assisting them in academic activities, accessing resources and support for research. Personal support is provided by the supervisor to alleviate stress and build the confidence of the student. Moreton-Robinson *et al.* (2020) state that to strengthen student support, there is a need for both students and the supervisor to understand their roles and responsibilities. These roles and responsibilities can be found in the supervision contract which each institution carves out for supervisors and candidates.

The Memorandum of Understanding (MoU): A Guiding Document

Spear (2020) states that there are some universities which have established set

guidelines for regular meetings and the university where I am located, effects this through the MoU which is mandatory for the supervisor and student. The MoU clearly states that the SSR is one of mentorship. It contains several technical responsibilities such as assistance with the student in applying for ethical clearance, plagiarism and completing progress reports on students. There is also a caveat on students' academic development such as language skills and providing opportunities for fieldtrips and conferences. It extends to guidance on topics and institutional requirements where students expect their supervisors to provide assistance. Whilst the MoU between the student and the supervisor is an institutional academic contract which outlines the roles and responsibilities of both parties, the personal support aspects are thin in this contract. It could be that there is a tacit belief that students will be recommended by the supervisor for counselling should they need personal support. I am mindful that there exists the narrative of underprepared institutions (Dhunpath & Vithal 2012) in respect of first generation students, and I have begun to question whether we are underprepared supervisors as there is a gap on personal support in the MoU.

Methodology

I understand supervision to be about shaping and supporting the post graduate student, drawing on the definition by Anderson *et al.* (2006). My aim in his paper is to self-reflect on my supervision via autoethnography (Spear 2020) but I extend this to analytic autoethnography as used by O Neil (2018). Autoethnography is a qualitative narrative approach to research which embodies the self in multiple social contexts (Creswell & Poth 2018). Lemmer (2016: 79) explains that 'Autoethnography also aims to link the self with the social and cultural world – the self in relationship with others in a social context'. I narrate my personal story (Govender & Markus 2025) using my embedded perspective of supervision with post graduate students and I utilise the reflexivity of autoethnography to highlight my insider perspective in a public HEI. I bring to the fore what my own students have been satisfied with and have needed (using unsolicited self-reported data) in the supervision process coupled with my own experiences to establish what students regard as essential elements for their support and to further enrich my practice through my experiences. My second aim is to develop scholarship on support on 'positive well-being' (Liang *et al.* 2021) of first generation post graduate students and staff who are supervising.

O'Neil (2018) in an autoethnographic paper reflecting on his own supervision experiences towards improving his practice, advances the value of analytic autoethnography for professional development in postgraduate supervision. However, his study focused on effective supervision for masters students' theses whilst I report on findings from both masters and doctoral students in Geography Education. O'Neil (2018: 487 citing the work of Anderson *et al.* 2006) explains that in analytic autoethnography, there are five aspects: '1) the researcher is a complete member researcher (CMR); 2) analytic reflexivity is used during the study; 3) the researcher is visible and active in the text; 4) there is dialogue with informants beyond the self; and 5) there is a commitment to theoretical analysis'. Autoethnography allows for deep insights into experiences which is not always possible in other methodologies (Ngunjiri, Hernandez & Chang 2010).

Whilst, I have been supervising for 15 years, I pull from fresh memories (Wall 2008) in the past 5 years with selected students to highlight certain vignettes of support which they consider to be essential in the SSR. I distil from predominantly digital communication such as WhatsApp messages and emails as well as written acknowledgements in submitted theses. Formally, I interact with my students weekly and at times more frequently given their needs or if I think there is an event/discussion important for their growth and development. If I am away on conference, my students are provided with targets to meet in my absence. My thinking and decision-making is also weaved into the discussion for rich analytic autoethnography. I provide my general approach to supervision mindful that my invitational philosophy to teaching and learning is embedded in my character and attitude which influences my supervision style and the support I am able to provide. The views expressed reflect my own insights of post graduate supervision and my students' articulations. I am confident about preparing my students academically for success given that in my 15 years of supervision, I have graduated 19 students, but I'm acutely aware of the literature on first generation students needing greater non-academic support (Liang *et al.* 2021).

There is an institutional performativity expectation for supervisors, another neoliberal influence, that graduating students must occur timeously. Additionally, supervisors develop the next generation of academics who will have to be effective supervisors. Lemmer (2016: 81) uses generativity in her autoethnographic paper on postgraduate supervision and she cites Erikson (1964) as defining generativity 'as establishing and guiding future generations through the creation and maintenance of a wide range of institutional, cultural,

and individual resources that are necessary to sustain intergenerational solidarity'. I draw on Kotre's (1984) expression of technical generativity which is the transference of knowledge and skills to the next generation of students who will likely enter academia.

My Initial Steps in Supervision - Building the Foundation

When I began supervising, I was not provided with an institutional mentor. I noticed an opportunity for professional development and joined a cohort seminar group for higher education supervision to develop my skills. I had a doctorate in Education but I was uncertain if I had the necessary tools to be an effective supervisor. Similar to O' Neil (2018), I began with a dyadic relationship of mentor and mentee by providing targets to be reached at the beginning of each year, an outline for the thesis, undertaking group and individual consulting on a regular basis physically and through email. Parts of this were distilled from my own supervision as a doctoral student. This is not unusual and Govender and Markus (2025) cite studies (Bitzer & Albertyn 2011; Lee 2009) where this has unfolded with numerous academics moving into the role of a supervisor upon graduation and using the very same methods of their supervision as a blueprint for how they should supervise.

I inserted aspects that I felt were relevant from my own doctoral supervision or what I felt was lacking when I was a student, for example- annual targets, workshops to craft articles for publication and student presentations of their progress. The targets and presentations were the result of me participating in the School of Education cohort seminars over weekends (Friday to Sunday in selected months), spread across the year. I gleaned knowledge from more senior colleagues but these were more academic in focus in the fields of theory, methodology, critical thinking, analysis, presentation of data and theory building.

My first inclusion in a doctoral cohort was as a student in the Education cohort at the then University of Durban Westville. The supervisors were highly regarded experts in their fields and introduced guest presenters for added insights. I was in awe of them but I was also a confident student, reading extensively about my phenomenon (teacher migration) which I was pioneering in South Africa, especially on theories and research design. I had defined my pathway for my study with detailed targets and the ability to qualify my choices for each aspect of my study.

I was aware that one of the main supervisors in the cohort sessions had very little patience with first year doctoral students who were unable to defend their research position and qualify their research design choices. Whilst I understood the need for this, I was saddened at how harshly she would comment about other students' prospective studies. This was my first encounter of post graduate students' mental well-being and it bothered my peers as well. They discussed how uncomfortable, intimidated and embarrassed they were at receiving comments without care in an open forum. This resulted with me noticing that some students dropped out of the doctoral study programme. This drove me to read more intensely so that I would not be on the receiving end of her wrath. I was rewarded, when during a coffee break, she approached me to say that I reminded her of herself when she was younger. I didn't want to ask her to explain I did ponder whether she was referring to me being equally cruel and candid, trying to match her with confidence during questioning in the sessions. Either way, I completed my study and graduated in the minimum 3 years. In hindsight, I realise that this was a crucial point for me – I was shaken by her harshness and lack of warmth towards my peers although mesmerised by her brilliance as a researcher. I hope that as a supervisor, my students never find me unapproachable and cruel in my comments, their well-being is important and it propels my supervision support. I want to exude warmth so they can succeed enveloped by care. I sometimes think that maybe I do enter that terrain of harshness when I'm repeatedly making the same comment during supervision consultations about continued plagiarism and the submission of work with the same errors as the student's previous submission. I remember a student in my early years of supervision telling me '*talk to me, don't talk at me*'. It is an area that I continue to refine and hone my skills as a supervisor.

I'm comforted by comments such as '*Thank you very much for the feedback*' (Bongani) which has made me realise that the guidelines in the physical contract (MoU) on the supervisor needing to provide feedback timeously, is appreciated by students when a supervisor adheres to it. Morrow (1994) explains that epistemological access is about support, guidance and collaboration and whilst the MoU defines areas for guidance and mentorship, there are gaps in respect of the support and collaboration that is needed for epistemological access for students. Valuable theoretical insights into the nuances of support can be found in the work of Masuku (2021:145) who states that 'It is crucial for the supervisors to be aware of power relations, students' issues, and to know their students background'. Thus, beyond the institutional MoU, there is a 'psychological contract' (Cureton 2016) which I believe

extends to support in the form of care and concern for students' welfare and well-being, that appears to be significant in the SSR. For example, during the recent floods, I enquired about the safety of two students via WhatsApp as one sent me a video of his village in flood since he was unable to connect over a deadline for submitting work. Both are part of the masters' programme, and are close friends and they live in deeply rural areas that were affected. Bongani messaged me *'Except for the prolonged downpour, everything is fine ... I think he is okay, we did speak during the course of the day ... I will try to reach out to him today. Prof, thank you so much for your concern about us'*. Later his colleague Sanele responded to me via WhatsApp: *'better now that the volume of the water has dropped ... Prof once again, thank you so much, the support you are giving us, its greatly appreciated'*.

There have been other times where students have been ill or their roles as parents overwhelm them and they are unable to meet targets or attend meetings. I know support and understanding are needed to provide for their positive well-being so they can progress. For example, Zanele messaged me *'I am sorry, I was not able to speak to you today, I had some personal matters, I had to attend to, If u are still able to speak to me, I can call you, after my doctor's appointments in the morning'* and Thabi explained *'...found 1 or 2 things I need to fix, my son had his vaccinations yesterday so he's been really miserable, so I'm trying to work with him on my lap...'*. I want to create an environment underpinned by a pedagogy of understanding, care and concern that enables learning and progress in the post graduate degree, rather than disable it. Research by both Fragouli *et al.* (2021) and Roach *et al.* (2019) found that the quality of the SSR determines the outcome of the research project. Andersen *et al.* (2018:3-4) have also warned that *'The pedagogical relationship between the student and the supervisor ... is intrinsic to the student's success'*, and it appears that the affective aspects hold the key to supporting students for success. This is also reinforced in comments. Zola sent me a WhatsApp message when I told her that I was presenting a lecture on student supervision (in 2021) and would like to share our experiences: *'Pls also include you've been my mother for the past 10 years ♡. It goes beyond supervision'*.

Intermeshing Personal and Academic Support

The value of intermeshing the personal and academic elements of support for student success seems to signal a route to students' positive well-being. Spear's study (2020) emphasized student's expectations of *'a measure of pastoral care'*

where they expect ‘advice, sympathy and encouragement outside of academic advice ’and herein is where I feel that inadequate attention is given in the literature on the extent to which a supervisor has to support post graduate students for their well-being as this will steer them towards success. I believe that much more is needed than just ‘a measure’ for first generation post graduate students. Chang *et al.* (2024:02) have illuminated that ‘personal support from supervisors can help alleviate postgraduates’ stress. When postgraduates receive care, understanding, encouragement, and appreciation from their supervisors, they enhance their psychological capital, including self-efficacy, adaptability, and resilience’. Chang cites Ahmed *et al.* (2017) who establish that personal support has a ripple effect leading to the achievement of academic goals such as research, resilience in responding effectively to challenges, increased confidence & optimistic behaviour.

A ‘Triple C’ Vignette of Student Support: Care, Comfort and Collaboration

This vignette of support features in two separate narratives that I discuss below: one narrative (Sibusiso) is of an anticipated challenge which the student knew he would be experiencing and needed to navigate and resolve. The other narrative (Slindile) is of an unexpected challenge that arrived as a hurdle to the consistent academic progress of the student, who suddenly needed personal support.

The Expected Challenge...

The narrative of Sibusiso demonstrates how personal support in the form of care and concern catalysed into cross disciplinary research collaboration leading to professional growth and academic success. Sibusiso did not have a family support structure, and whilst fee remission is available for the doctoral study, he needed a job to provide for his daily needs during the minimum time of three years. He declared that finance was his greatest worry in one of our early consultations. I was concerned for his welfare and I comforted him that we will find a source of income as there were numerous contract staff positions being advertised daily. I was also leader of several funded projects and participating in other projects with colleagues (institutional and national). We were all in need of some form of project assistance. Sibusiso was prepared to dedicate the required time to co-ordinate aspects of two of the projects and he received the

requisite training for each, affording him epistemological access (Morrow 1994) into research. He also had to balance this with his study and he chose wisely by selecting the project closest to his doctoral study so it could broaden and enrich his conceptual, methodological and theoretical understandings. He was also in a position to now transition from student to colleague so the power dynamics altered as he collaborated with myself and other colleagues to drive the projects towards achieving the deliverables timeously. He was enthusiastic and participated with zeal, building cross disciplinary research relationships and learning new research skills. He emailed me stating *‘Thanks so much for your support and giving me a chance to participate in this project, which is so relevant to my PhD study as well as this paper which we are working on, I am confident that after the project...’*. He was already planning for further academic endeavours to keep the momentum, with us as project leaders having gained epistemological access. Sibusiso has travelled extensively across South Africa as a result of the projects, building research networks and providing insights from one of the projects for a new international project proposal. He completed his doctoral study in the minimum 3 years and we co-published two articles during this time. Participating in the projects also came with challenges and I recall a WhatsApp message to me from another doctoral student informing me that Sibusiso had not been paid on time from both projects due to a technical systems glitch and this lack of income had repercussions for his food security. I understood that I had to respond as I had an ethical responsibility (Tronto 2020) towards him.

An important aspect of my supervision is to create personal and professional living, learning communities by linking students who have similar research interests as they can offer support to each other either during our cohort consultations or outside of formal meetings. At the commencement of a meeting, each student speaks about his/her work life balance elaborating on the obstacles they are encountering, the opportunities and triumphs. Their peers are then encouraged to respond or add to this discussion and to build relationships with each other after the cohort meeting for further engagement with each other. Students are also asked to comment during the cohort session or later via email/ WhatsApp about what type of support they need. These communities develop organically and I suggest during sessions what the strengths of the various students are and students themselves identify colleagues who can assist them to develop certain skills or if their personalities resonate with each other. Living, learning bonds crystallise over time. During cohort sessions, doctoral students who have already graduated and may now be located at other institutions as

lecturers (locally and abroad) are invited to present on their experiences, their Geographical and writing expertise, their strengths developed through their doctoral study group consultations and workshops. They now share and assist to develop other students in the existing cohort. In this way technical generativity (Kotre 1984) is nurtured. Graduated students also share their details with the current students and as such a hierarchy of successful doctoral students with different strengths develops across the years for current students inspiring them towards success. This is feedback sent to me by Sibusiso: *‘...I am now in touch with Zola on WhatsApp and I asked her to check ideas which needs some citations and to check plagiarism using her anti plagiarism software as well and to do some peer reviews. As such I will edit the article and send a refined version tomorrow morning. Sorry for the inconvenience. Thanks for linking me with her’*.

At times, students feel more at ease to share or speak about their challenges to each other as part of the living, learning community and this deep connection is valuable for building their personal support structure as first generation students. Sibusiso now provides research guidance to current postgraduate students on referencing, professional learning communities and environmental education. Students are grateful for all the forms of support provided (academic and personal) and at the end of 2024, Zola sent me this message after receiving news of her doctoral dissertation passing the examination process: *‘... cannot believe how fast the year can go...thank you for all the love, guidance and support you have given me throughout the years’*.

After his doctoral graduation, Sibusiso was offered a post-doctoral fellowship at another HEI by one of the national project leaders, coupled with the opportunity to supervise postgraduate students, after being recognised for his research competence, rapid professional development and his publications history. His increased confidence and supervisory growth is evident in his emails to me: *‘I’m currently supervising a masters’ student. Since graduating, I focussed on leading supervision workshops and benefitting from your mentorship’*. Later, he messaged me on his next achievement, *‘... I was asked to review one of the chapters for Dr Z...special edition and this is what he said after going through my review...thought of sharing with you because I got all these skills from you and am forever grateful’*.....*The comment he received from the editor of the special edition was: ‘Thanks for the thorough review. We need to co-edit a special edition together soon. Your editing skills are -happy emoji’*

Despite being far away physically, he together with other graduated students spread across the world and in South Africa, continue to participate in

the cohort meetings and workshops depending on the agenda for each meeting, they have become my supervision colleagues, collaborating and contributing to content knowledge, writing skills and honing our supervision skills, sharing our experiences and ideas. Our professional living, learning communities are enduring beyond the doctoral time period and across borders. Sibusiso who is now in another province, sent me this message for a workshop on referencing that I suggested he lead: *'Hi...I can do the workshop but I will need some time to prepare for the presentation and I will prepare a quiz of not more than 10 MCQs to do at the end of the session'*. He was also invited by another academic Dr X, who was my doctoral scholar and is part of our supervision team to participate in an online proposal defence. Sibusiso messaged me with the news of his academic advancement *'Hi Prof, I was part of the masters proposal review panel today for Dr X's student'*. Post graduate academic supervision support has been nationalised without a formalised memorandum of understanding and the development of the next generation of academics are taking shape.

Navigating the Unexpected Challenge ...

The supervisory contract (MoU) will not alert you that SSR is unique to each student: each student is an individual and his/her context, experiences, personal and academic support needs are different given a variety of factors such as 'personality, background and aspirations' (Spear 2020). Masuku (2021: 145) also similarly advances that 'supervisors need to realize that students are not the same' and subsequently the challenges that each face will be different and the support and extent of this support will vary. An example of greater care, comfort and collaboration was evident with Slindile. She was employed as a climate change training officer providing support in climate mitigation to local farmers with funding by USAID. She is hardworking and extremely committed and within two years she had advanced academically and submitted the first three written chapters (introduction, literature and theory and methodology) of her dissertation. She was thus progressing well in her studies until this obstacle. A major unexpected obstacle to her consistent progress occurred when Trump cut aid to Africa in March 2025. Overnight, she lost her job and mentally the strain was evident in our consultations.

Maritz (2024) had noted how mental strain affects postgraduate students' well-being and the need for the supervisor to provide personal support. We were spending time on WhatsApp daily: talking, messaging, sending voice

notes, and having zoom meetings about the repercussions of her loss of income, how she would continue with data generation and her future. We have spoken about the repercussions of the loss of aid for the non-governmental organisation and her data generation plan for her study. I was intent on her building ‘psychological capital’ (Chang 2024) and I suggested that she should write an article on the impact of the loss of aid for all stakeholders who are part of the NGO. I surmised that this would be some form of mental therapy for her to capture the details vividly in real time, and secondly, she would explore and learn about aspects of positionality and a new approach to qualitative analysis. She could also achieve an academic target: a publication from this, if the peer review process was successful. We also conversed at length about opportunities for employment and began searching for research positions that she could apply for abroad and locally: she would find the advert or I would and discuss it with her then I would craft the motivation letters if needed and email them. We continue to do this until she is successful; she is suddenly under immense mental strain and shifting her to ‘positive well-being’ (Liang *et al.* 2021) is necessary for effective supervision.

Ethical responsibility (Tronto 2020), care and concern drive me, I feel under pressure to assist her to find a job so she can persist in her studies, continue with her data generation and meet her academic targets for her doctoral study. I’m just a WhatsApp message / call away if she needs to talk and she calls me regularly, more than any other of my students. I understand her pain and I don’t want her to lose the momentum of her study. I am also acutely aware that this is a temporary hurdle that I need to help her to navigate in her journey. Similar to Lemmer (2016: 92), I am conscious that I’m engaging in technical generativity (Kotre 1984) and I’m confident that she will soon be offered an academic or a research position. Until this unfolds, I will continue to scaffold her, providing the academic and personal support that she needs for her ‘positive well-being’ (Liang *et al.* 2021). At the time of submitting this article, she was shortlisted for a contract lecturer position at a university close to her home.

I have realised that every post graduate student will need support at some point in their study.

The Road to Success is Paved with Obstacles...

I am reminded by Zola of the lengthy heart wrenching struggles that can derail a student, threatening timeous completion of the post graduate research study and how important academic and personal support is for student success. The

following excerpt is taken from Zola's acknowledgements in her dissertation:

'I would like to thank my supervisor, Professor Manik, whose support, patience, guidance, devotion, assistance, grace, and encouragement motivated me to combine my interest in XXXXXXXXXX in bringing this dissertation to fruition. This has been a five-year journey of pitfalls, 'never giving up', and 'soldiering on', a bumpy road to completion due to my father's passing, which made it challenging to stay 'afloat'. Prof. Manik has been more than a supervisor; she has been my mentor, a role model, and a researcher of the highest calibre who has encouraged me since my undergraduate studies. Thank you for walking this path with me. Ngiyabonga kakhulu Ma wami; Izandla zedlula ikhanda'.

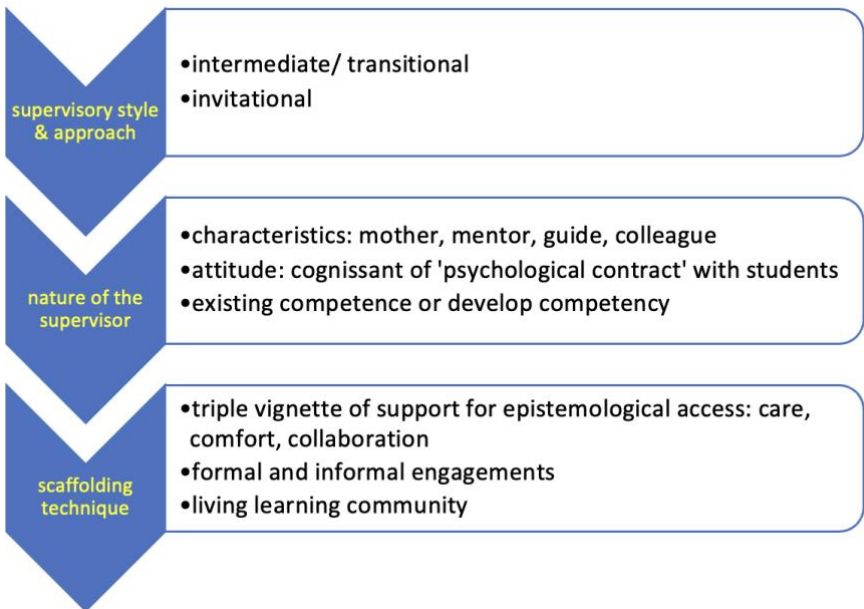
Maybe this is the key, to be 'more than a supervisor' or is it that the supervisory role now is more personal support than academic support for first generation post graduate students. Liang *et al.* (2021) and Pham *et al.* (2025) have both recently revealed the value of personal support.

Discussion

Effective supervision extends further as demonstrated in the narratives which I presented for discussion. In SA, with the widening of access into higher education, first generation postgraduate students are experiencing academic and personal challenges that threaten their progress and which can lead to slow throughput or drop out. Challenges have been reported in research studies (Jepchirchir & Munyua 2022; Mavuru *et al.* 2023) and because supervisors are the primary source of guidance and support, they have to provide various forms of effective support (Chang *et al.* 2025: 02) which is equally strenuous for their mental well-being. Wang *et al.* (2013) had long declared that it is the role of the supervisor to provide psychological support that reduces a student's mental pressure. Academic and personal support are thus argued to be essential for postgraduate students (Ballard & Clanchy 1993; Overall *et al.* 2011 in Chang *et al.* 2025). There is also a 'psychological contract' (Cureton 2016) between supervisor and student and this contract is intangible: the expectation of support that is critical to the student's success. It exists as expectations that the student has of the supervisor that the supervisor will assist to alleviate the challenge but the supervisor may not always be successful in achieving this. It is evident that the majority of first-generation undergraduate students in SA are not graduating in the minimum time (CHE 2024) thus post graduate students could also be

facing similar challenges of epistemological access where forms of support are critical to their success.

Drawing from Lemmer (2016: 81), these are the ‘layers of my supervisory self’ for effective supervision of my first generation post graduate students incorporating academic and personal support. The framework presented comprises my supervisory approach and style (intermediate which grows to strong when students face challenges), my supervisory characteristics, attitude (such as understanding and being available) and competence and the support (scaffolding) techniques that I use: formal and informal interactions (engagements), a triple vignette of care, comfort and collaboration for epistemological access, the creation of living, learning communities of students and graduated students and colleagues.



A layered supervisory framework for first generation postgraduate student support and positive well-being

Manathunga (2005) avers that internationally and in SA, many students are not prepared for post graduate research and given my experiences with the nature

of students' challenges perhaps we as supervisors are deficit because we are overburdened with excessive workloads due to the widening of access into higher education and without in-service training for this context. Staff have to demonstrate effective post graduate supervision as it affects graduation and throughput rates and university ranking (Nulty, Kiley & Meyers 2009, Carter & Kumar 2017). Masuku (2021) states that despite there being an increase in the intake of PG students in HEIs since 1994, the graduation rates have been lower (CHE 2009) than expected placing greater strain on academic staff. The majority of students in higher education are first generation post graduates, experiencing a combination of personal and academic challenges which they need to navigate and supervisors are under institutional pressure due to institutions chasing neoliberal targets: drop out, throughput and graduation. Supervision is in addition to my other workload commitments such as teaching practice, community engagement and teaching two modules and large class sizes have now become the norm, adding to mental pressure (Wang *et al.* 2013). The university's neoliberal push of throughput and graduation rates can impact the progressive development of the student who experiences mental strain to complete in the minimum time. Thus, both the supervisor and students' mental well-being are being tested in this current academic environment.

Conclusion

It is asserted that post graduate education contributes to building the knowledge economy and society and both the supervisor and student are active participants in this construction. Masters and doctoral students depend on their supervisors to meet their targets and successfully advance in their studies. Post graduate supervision is a sensitive topic for academics because it carries great responsibility (Spear 2020) and it is also complex. I am still left wondering whether we are underprepared supervisors in public HEIs as we now have large numbers of first generation post graduate students than previously? Perhaps, institutions need to be more cognisant of their responsibility to capacitate staff given the discourse on supervision support for the success of first generation post graduate students. Whilst I presented my supervision support framework that is effective for my students, I want to advocate for an institutional supervision support framework (Andersen *et al.* 2018) to enhance the capacity of staff to effectively support first generation students for their positive mental well-being and the mental well-being of supervisors. The need for social justice

and equity of outcomes in HE drives numerous epistemological access support programmes for undergraduate students. However, this needs to be matched by nuanced support provision for post graduate students and their supervisors else it will be myopic to aim for the production of one hundred doctoral students per million per year by 2030 (National Planning Commission 2012) without a clear strategy of institutional capacity building for staff and a multipronged support strategy for staff and post graduate students' positive well-being.

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Chapter 13: Excellence in Supervision is a Function of Relevant Models

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Abstract

Interrogating or analysing supervision models is important because it helps supervisors and students identify and understand the research needs and identities that drive their research actions. Supervision models are categorised into structured, unstructured, and semi-structured types. Although supervisors in South Africa have used supervision models to improve postgraduate throughput rates, they have not helped South Africa to produce one hundred doctoral graduates per one million people. Producing one hundred doctoral graduates per one million people is the South African target for 2030 as stipulated in the National Development Plan of 2030. Higher education institutions (HEIs) are expected to produce at least five thousand doctoral graduates yearly. HEIs in South Africa produce fewer than two thousand doctoral graduates per year. This course of concern motivated me to explore and analyse supervision models used by postgraduate supervisors at a HEI in South Africa. This study used the pragmatic paradigm, action research, and digital national identity framework to frame document analysis, reflective activities, observations, focus group discussions, and semi-structured interviews as the data collection methods. The study further used purposive sampling with convenience sampling to select twenty postgraduate supervisors from a HEI in South Africa. The findings indicate that the dominance of the structured and unstructured models has generated tension between them that needs to be addressed by a semi-structured model, which is capable of creating a space for digital self-reflectivity before supervision processes take place. It is for this tension that this study explored and analysed supervision models used in South Africa. A semi-structured model concentrates on actions, beliefs behind the actions, and the consequences/outcomes of supervision. This study,

therefore, recommends the application of a semi-structured model and awareness of natural forces/laws that promote natural actions, thus addressing personal and natural needs.

Keywords: Digital technology, structured, semi-structured, supervision interface, unstructured

Introduction

Interrogating supervision models is important because it helps supervisors and students to find and understand their supervision and research needs and identities that drive their supervision actions (Khoza 2024; Zafar *et al.* 2021). Supervision takes various types of models that positively or negatively influence the performance of supervisors and students (Clegg 2008; Saidi 2024). Supervision models are categorised into structured, unstructured, and semi-structured. Structured and unstructured models dominate and result in compromising the space of a semi-structured model, which allows supervisors and students to self-reflect and critique with accountability (Abiwu 2024; Kidman *et al.* 2017). Supervision models generate certain identities for supervision, especially when they self-reflect based on a semi-structured supervision model (Castelló *et al.* 2017; Manathunga 2023; McAlpine *et al.* 2014).

Although supervisors in South Africa have used supervision models to improve postgraduate throughput rates, they have not helped South Africa to produce one hundred doctoral graduates per one million people (Cilliers & Camp 2013; Oh 2021). Producing one hundred doctoral graduates per one million people is the South African target for 2030 as stipulated in the National Development Plan of 2030. Higher education institutions (HEIs) are expected to produce at least five thousand (5000) doctoral graduates yearly (Isike & Ogunnubi 2017; Matyana & Thusi 2023). HEIs in South Africa produce fewer than two thousand doctoral graduates per year (Blom *et al.* 2023). This course of concern motivated me to explore and analyse supervision models used by postgraduate supervisors at a HEI in South Africa. This study may be useful to HEIs, supervisors, students, research/postgraduate administrators, policy developers, and other HEI stakeholders. The first contribution may begin with the participants when they begin the self-reflection process through this study.

In the process of exploring supervision models, the following research questions are addressed:

- A. What supervision models do postgraduate supervisors use in supervising postgraduate students (descriptive)?
- B. How do postgraduate supervisors use the supervision models (operational)?
- C. Why do postgraduate supervisors use the supervision models in particular ways (philosophical)?

The structure of the chapter is as follows:

Discussions on supervision models, natural identity framework (NIF), Research Design with Methodology (pragmatic paradigm, mixed methods approach, participatory action research (PAR), purposive with convenient sampling, document review, participant observation, semi-structured interviews, reflective activities, validity, thematic analysis, ethics), findings with discussions, and conclusion with implications.

Supervision Models

A desktop or systematic review qualitative study conducted by Milne *et al.* (2008) on an approach to construct a basic supervision model produced an inductive (*unstructured*) supervision model. This study reveals that almost all supervision models are operationally driven and only address the how questions of supervision because of the lack of empirical evidence (Manathunga 2023). This study is supported by research conducted by Prasertia *et al.* (2022) on collaborative-based supervision models (*unstructured*), revealing that flexibility and adaptive facilitated group work to achieve research outcomes are drivers of these models. In other words, students and supervisors can have informal interaction at any time, anyhow, and anywhere if they follow *unstructured* models. Studies (Bäckryd 2022; Kemp *et al.* 2014; Makumane *et al.* 2022; Morgado *et al.* 2024; van Schalkwyk *et al.* 2016) argue for the use of digital technologies for interaction since the Fourth or Fifth Industrial Revolution (4/5IR) technologies are flexible and adaptive.

Digital technology is a user interface developed and used by humans to represent their truth for survival based on their unique needs of space and time (Prakash *et al.* 2021). The 4/5IR is a space and time that began at the turn of the 21st century with digitalisation and personalisation of supervision activities (Sarfraz *et al.* 2021). The digitalisation process promoted nonlinear user interfaces of supervision, while the personalisation process promoted self-reflections that help supervisors to understand the founders of the user interfaces they used with the ideologies of the founders. The 4/5IR was formed by the staggering confluence of emerging technology breakthroughs, covering wide-ranging fields such as artificial intelligence (AI), the internet of things (IoT), robotics, autonomous vehicles, nanotechnology, biotechnology, 3D printing.... . Some of the technologies have influenced supervision models with their flexibility.

For example, in 2022, Sam Altman developed a Chatbot Generative Pre-trained Transformer (ChatGPT) through OpenAI as a user interface trained on a large amount of text to produce human-like language outcomes through dialogues. Sam's ideology (identity) was that whatever knowledge we needed existed in the world database and was accessible through a relevant user interface/technology. Although ChatGPT has been used worldwide (Haman & Školník 2024; Rahman *et al.* 2023), most end users are not aware of Sam's ideology of knowledge, and the truth (circuits, pixels, etc, used to produce it) of this user interface, which they have used for their research survival needs. The majority of the end users' needs are to use ChatGPT for basic research needs (search for information) without necessarily knowing its truth/objective reality, which is only known by Sam, and he cannot give the users the objective reality (he lacks this ability) except for what they can use for survival (Fields *et al.* 2018). However, unstructured models may have enough room for academic dishonesty and ambiguity of responsibilities and expectations (Blair & Guan 2021; Dinov 2020). For example, students may use AI technologies to write their research work and submit it to their supervisors as if it were their original work.

As a result, other supervisors have opted for *structured supervision models* because they prescribed specific stages of research where students' progress can be tracked against established criteria, and supervisors give feedback based on formally planned and scheduled meetings, workshops, training sessions, and/or seminars/webinars. Structured supervision models were promoted by the automation of the Third Industrial Revolution (3IR), where quantitative studies were dominating (Sarfraz *et al.* 2021). HEIs mostly

have prescribed templates with stages to strictly use by supervisors and students when they opt/agree to follow a structured supervision model. Some common stages are research proposals with literature review, framework, research design with methodologies, and others.

Some of the digital technologies that are mostly organised and introduced to students to access research knowledge are search engines such as Google Scholar, YouTube, EndNote, Grammarly, Zoom, and others (Haleem *et al.* 2022). Google Scholar is useful in verifying information from other digital technologies, including ChatGPT. YouTube is a website for uploading, sharing, and viewing online videos invented by Steve Chen, Chad Hurley, and Jawed Karim on the 14th of February 2005. Supervisors and students (end users) can create their own YouTube accounts and upload/share online videos on their opinions to address their needs. When the videos are published, they need to be referenced when they are cited. There are various reference management digital technologies, such as EndNote.

In 1988, Rich Niles developed EndNote to assist researchers with referencing and citations, especially for structured models. It requires users to create an error-free library to produce structured results. This suggests that EndNote is driven by structured models that require users to follow specific, prescribed steps (Branch 2020; Makafane & Chere-Masopha 2021).

Another structured-driven digital technology is Grammarly because it promotes authentic English and discourages sanitised English (Kim & Kim 2021; Kristiani & Pradnyadewi 2021; Mthembu & Khoza 2024). Grammarly was developed by Max Lytvyn, Alex Shevchenko, and Dmytro Lider during their time at the International Christian University in Ukraine. They first developed My DropBox, a plagiarism-detection company that inspired the idea for Grammarly. Dmytro Lider, as a software engineer, made Grammarly available under a freemium model with the option to purchase upgraded versions. In other words, Grammarly detects both similarities and sanitised English that need to be corrected by the users. Research issues may be discussed through Video Communication Digital Technologies (VCT) such as Zoom (developed by Eric Yuan in April 2011), Skype (invented by Niklas Zennstrom, Janus Friis, and four Estonian developers to be released in August 2003), Microsoft Teams (Bill Gates decision of 14 March 2017), WhatsApp (invented by Brian Acton and Jan Koum in February 2009), etc.

Like theories as user interfaces that represent their founders' unique ideologies and needs, digital technologies do the same. The founders of digital technologies are aware of the powers of identities carried by each of those

theories/digital technologies, which shape people according to the founders' ideologies. As a result, founders of digital technologies keep reflecting on their unique experiences and need to produce and promote their unique digital technologies to be used by other people who cannot invent their own unique digital technologies. For example, Eric Yuan invented Zoom VCT while Skype was still active, and Bill Gates advocated for Microsoft Teams. At the same time, end users still actively used Zoom because they felt the VCTs did not represent their unique needs. The same was observed when Pavel Durov invented Telegram in March 2013, while WhatsApp, founded by Brian Acton and Jan Koum in February 2009, is still actively used by end users as a communication interface (Khoza 2020; Putri & Sari 2020).

However, if digital technologies are used for *semi-structured supervision models*, they are selected and used based on the needs of both the supervisors and students. Supervisors and students first reflect on their experiences to understand their unique needs that should drive digital technologies. In other words, semi-structured supervision models may be dominated by qualities of structured, unstructured, or both models because they are based on unique individual needs.

This suggests that while end users of digital technologies or theories are not aware of the truths/objective realities of digital technologies/theories, the inventors/founders/developers are aware of the powers of the identities represented by digital technologies and decide to produce their new unique ones to avoid being controlled by those represented ideologies (Prakash *et al.* 2021). However, for end users, the truth/objective reality about digital technology or theory may not be important if it helps them survive at their experience level because they may not have time to reflect on their experiences and understand their need to be aligned with such digital technology. As a result, end users are easily controlled by the ideologies of the inventors of digital technologies or theories they may not be aware of, because they may not reflect and understand their needs before they use the digital technologies.

However, a study conducted by Makumane *et al.* (2024) on decolonising educational technology argued that even if end users are closer to the truth about digital technologies, they may not always use digital technologies to achieve one hundred percent (100%) outcomes. They may not reach 100% because outcomes or consequences of human actions are naturally driven (Khoza 2023). For this reason, the outcomes/consequences of actions are naturally driven, and this study uses a natural identity framework (NIF) to frame this study.

Natural Identity Framework (NIF)

NIF (Figure 1) is underpinned by three main identities (professional, societal, and personal) and connecting concepts (formative, peer, and summative assessment) (Khoza 2024).

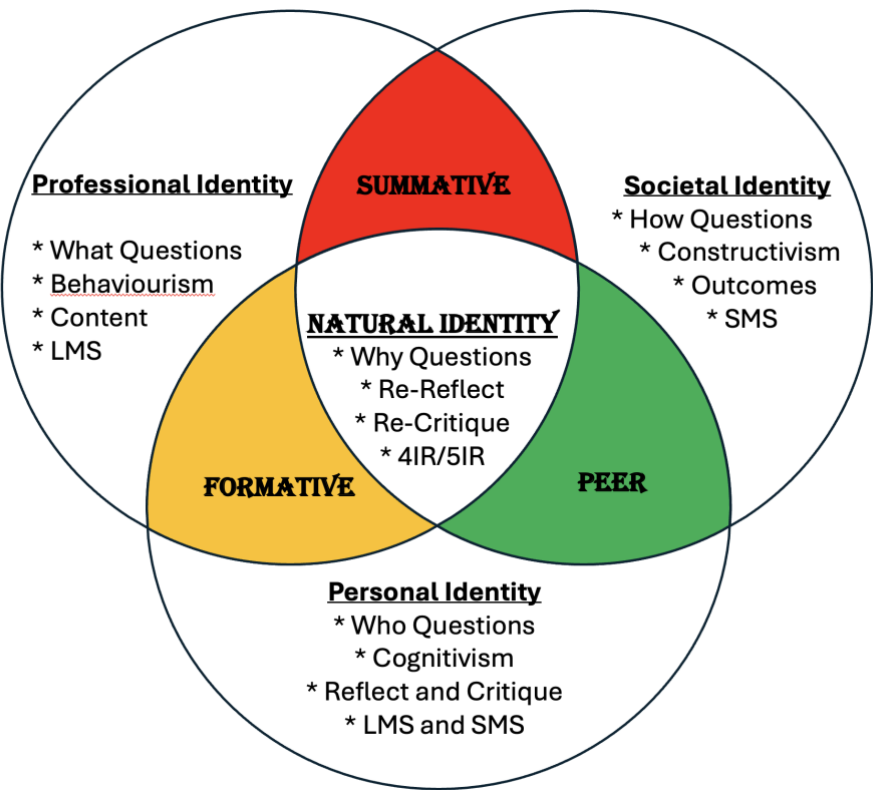


Figure 1: Natural Identity Framework (NIF) (Khoza 2023: 859)

Professional identities are the positioning of researchers who strictly follow HEI-prescribed stages/steps of conducting research. Professional identities address the ‘what descriptive questions’ of research through research-prescribed content, behaviour (roles, responsibilities, expectations, etc), summative assessment (assessment of learning), and resources such as the university learning management system (LMS) and other prescribed digital

technologies. Professional identities position supervisors and students within structured supervision models through their principles and summative assessment (Branch 2020; Makumane *et al.* 2024). Summative assessment is used to grade students' work to the next level and establishes what may be cognitively not be mastered by the students. It also connects professional identities with societal identities.

Societal identities are the positioning of researchers to follow the opinions of people (societies) when conducting research. Societal identities address research's 'how operational questions' by constructing research based on everyday knowledge and achieving research outcomes (Zuma *et al.* 2022). Societal identities position supervisors and students within unstructured supervision models through their principles, peer assessment (assessment as learning), and mostly social media sites (SMS). SMSs are mostly used to facilitate research processes through peer assessment (group work) (Branch & Lee 2020). Peer assessment connects societal identities to personal identities.

Personal identities position researchers to follow people's opinions or HEI-prescribed stages/steps when conducting research. In other words, personal identities may promote structured and unstructured supervision models by using both strengths in research. Personal identities address the 'who personal questions' through reflection, critique, and formative assessment that connect them to professional identities. Personal identities concentrate on the cognitive processes of researchers. NIF argues that HEIs have used the supervision models (structured, semi-structured, and unstructured) influenced by relevant identities to improve the postgraduate student throughput rate (Khoza 2023). Still, HEIs have not achieved a 100% throughput rate. NIF concludes that the 100% throughput rate is not achievable, because the consequences or outcomes of individual actions are uniquely and naturally driven to address the why philosophical questions.

This suggests that while supervisors and students optimise their research actions, they should be aware that the natural forces/laws have the final say in the outcomes of the actions. This further suggests a natural identity as another that influences the supervision models that need to be interrogated. Natural identities are cognitive (conscious, subconscious, unconscious) ongoing processes/systems of reflection and critique of subconscious thoughts by the conscious mind to produce individual desirable values that assist individuals in accepting outcomes as functions of natural identities (Khoza 2023).

Research Design and Methodology

This chapter used a pragmatic paradigm that frames abductive, retroductive, or retrodictive reasoning and a mixed-methods approach (qualitative and/or quantitative). A pragmatic paradigm focuses on human actions that emerge from individual past experiences and beliefs (Morgan 2014a). The meaning of actions and beliefs is found in their outcomes, which predict future actions, beliefs, and outcomes. Human actions intrinsically, uniquely, and naturally evolve at every turn. Each human has unique needs that require self-reflection to understand one's identity for the task. This suggests multiple realities based on the unique human needs that may be accommodated by a mixed methods approach that allows both qualitative and quantitative approaches in action or one of them based on the unique needs of the situation to be addressed (Creswell & Creswell 2018). This approach is supported by participatory action research in this study, which involves planning, action, observation, and reflection stages (Cohen *et al.* 2018).

The planning stage mostly addressed the first research question (descriptive) through document review and focus group discussion. Documents that were analysed were supervisors' teaching portfolios that carry what the supervisors used for supervision, teaching, and research. Analysis was based on NIF principles. The action and observation stages addressed the second research question (operational) through participant observation. The reflection stage addressed the third research question (philosophical) through reflective activities and semi-structured interviews. The data collection methods were conducted twice, each for approximately an hour. All the data collection methods were based on the NIF principles. Only two cycles/phases of participatory action research (PAR) were performed on twenty purposively and conveniently sampled participants from a HEI in South Africa. However, only three (data saturation) of the twenty (20) narratives are reported in this study using narrative analysis, while graphs represent all the 20 participants. Pseudonyms (Supervisor 1 - 20) (Table 1) were used to represent the participants' real names to observe ethical principles (confidentiality, anonymity, voluntariness, etc).

Population

The participants consisted of three full professors, one lecturer, eleven associate professors, and five senior lecturers. Years of experience for the participants were between 8 and 22. There were 9 females and 11 males. There were 9 Africans, 1 Coloured, 7 Indians, and 3 Whites.

Table 1: List of Participants

Name	Post	Years of Experience	Gender	Race
Supervisor 1	Associate Professor	11	Female	Indian
Supervisor 2	Senior Lecturer	08	Male	White
Supervisor 3	Full Professor	22	Male	African
Supervisor 4	Associate Professor	15	Female	White
Supervisor 5	Senior Lecturer	12	Male	Coloured
Supervisor 6	Lecturer	08	Female	African
Supervisor 7	Full Professor	21	Male	Indian
Supervisor 8	Associate Professor	18	Male	African
Supervisor 9	Associate Professor	14	Female	African
Supervisor 10	Associate Professor	13	Male	African
Supervisor 11	Senior Lecturer	08	Female	African
Supervisor 12	Senior Lecturer	09	Female	African
Supervisor 13	Senior Lecturer	09	Male	Indian
Supervisor 14	Associate Professor	18	Male	African
Supervisor 15	Associate Professor	20	Male	African
Supervisor 16	Associate Professor	19	Female	Indian
Supervisor 17	Associate Professor	16	Female	Indian

Supervisor 18	Associate Professor	17	Male	Indian
Supervisor 19	Associate Professor	20	Male	Indian
Supervisor 20	Full Professor	21	Female	White

Trustworthiness was addressed in terms of confirmability (neutrality – all participants knew the purpose of the study), credibility (truth value – audit trail and tape recorder), dependability (consistency – direct quotations from the participants), and transferability (applicability – by providing sufficient details of the relevant context) (Khoza 2023).

Findings

The results presented in Table 2 and Figure 2 came from the five research methods (document analysis, reflective activities, observations, focus group discussions, and semi-structured interviews) used in this study.

Table 2: Quantitative Results from the 5 Instruments based on the NIF principles

NIF Principles	Docu-ments	Reflec-tion	Obser-vation	FGD	Inter-views
Professional Identity	12	13	10	11	12
What	12	12	20	11	12
Positivist	11	11	4	11	11
Quantitative	11	11	4	11	11
LMS	12	12	6	12	12
Societal Identity	6	5	8	7	6
How	6	6	20	7	6
Constructivist	6	6	12	7	6

Qualitative	6	6	12	7	6
SMS	6	6	12	6	6
Personal Identity	2	2	2	2	2
Who	2	2	2	2	2
Pragmatic	2	2	4	2	3
Mixed-Method	2	2	4	2	3
AI	2	2	2	2	2
Standard Deviation	4,09	4,21	6,07	3,90	3,94

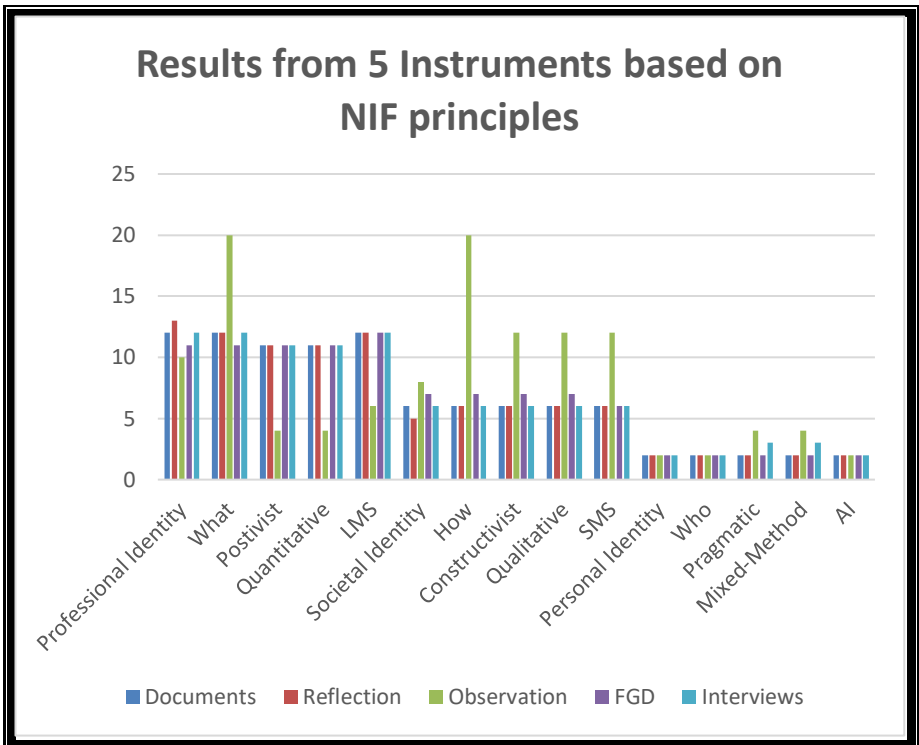


Figure 2: Results from the 5 Instruments based on the NIF principles

The results in Figure 2 and Table 2 reveal that the majority of the participants used a structured supervision model (professional identity of the NIF), fewer used an unstructured model (societal identity), and the least used for semi-structured model (personal identity). Both the focus group discussions and interviews have the smallest standard deviation (S) of 3.9, which suggests they were more reliable than the other methods. The observation with the largest standard deviation of 6.07 produces the least reliable results. Therefore, the quantitative results support the claims of the literature review that structured and unstructured models dominate supervision and deny a semi-structured model the opportunity to support supervisors and students with self-reflection. The qualitative findings based on the narratives of the participants also support the quantitative results.

The qualitative findings are presented in narrative form (stories), with three of the 20 supervisor narratives (Supervisor 1, 2, and 3) included. After the findings (narrative stories) presentation, four discussion themes were produced to substantiate the findings with discussions and re-contextualise them with relevant literature.

Supervisor 1

I joined this university in 2013, supervising master's degree students since 2014, and co-supervising PhD students since 2018. I mostly supervise my students in groups (cohort) so that they can support one another (peer support) and encourage them to join other university cohorts organised by other supervisors, where possible more support. I have supervised 8 master's degree students and co-supervised 2 PhD students to completion. They can use any digital technology to support their studies (even Facebook, weblog, AI, etc). Even when they want to publish articles from their studies before they complete them in our local journals, I encourage them because the university needs publications. Although I give them enough freedom in doing their studies, when they have delayed their studies, they sometimes apply for a change of me as the supervisor because they compare themselves with faster students from other supervisors or drop out

Supervisor 2

I joined the university in 2016 as a lecturer. I started supervising and co-su-

pervising PhD students in 2018, and master's degree students in 2016. I have graduated 25 master's students and 8 PhD students. My students only publish from their studies after they complete their research projects because I need them to strictly follow all the university research rules to finish their qualifications as licenses for their next levels of thinking. I motivate my students only to use university-prescribed digital technologies such as EndNote, Google Scholar (through university libraries), Grammar-ly, Zoom, etc., so they can easily get support from me because I am familiar with the university-prescribed technologies. As a result, they mostly complete their studies within the minimum prescribed periods. However, during the time of their studies, they mostly complain that I am too strict with my instructions and stress them, but when they are done with their studies, they enjoy my company as friends

Supervisor 3

I started teaching at this university in 2002, supervising master's students in 2003 and doctoral students in 2014. Before formally supervising students, I request that they write self-reflections that help them understand their experiences, beliefs, needs, and values. The self-reflections establish whether I must manage a student through a structured, unstructured, or semi-structured supervision model. After confirming the relevant supervision model for the student, I supervise the student in developing a research proposal to be defended after the student has been officially registered and signed the university supervision contract.

Full-time master's students have one year to complete their studies and two years for doctoral studies if they start to work on their studies before their formal registration. My students, whose self-reflections favour a structured supervision model, take a minimum of years to complete their studies. They take a minimum period because they strictly follow all their research projects' prescribed steps and stages.

They even invest in digital technologies that fast-track their research projects, such as Google Scholar, EndNote, YouTube, ChatGPT, Grammar-ly, Zoom, etc. When they use ChatGPT, they use it sensibly by verifying and declaring information generated from it. They submit some sections every week and discuss the feedback on the submitted sections. They publish articles or book chapters from their theses after they complete them.

My students, whose self-reflections favour an unstructured supervision

model, double the minimum period of years to complete their studies. They double the minimum period because they work with various groups of people, over and above their supervisors. In other words, they participate in other activities over and above their studies.

My students, whose self-reflections favour a semi-structured supervision model, usually take a minimum of years plus a semester or two to complete their studies. They take this period because they work according to the needs of their studies, whether structured or unstructured. I have currently supervised 30 PhD and 60 master's students to completion. I also co-authored with my PhD students to support them in understanding their scholarships more ...

Discussions of Findings

The findings confirm the three categories (unstructured, structured, and semi-structured) of supervision models presented in the literature review section and supported by the natural identity framework (NIF). Although the participants were from the same university, they experienced supervision in three ways: an unstructured supervision model for societal needs, a structured supervision model for professional needs, and a semi-structured supervision model for personal/individual needs. The findings further point to the natural-driven supervision model as another direction to be investigated to find a solution that may produce 100% outcomes of human actions.

An Unstructured Supervision Model for Societal Needs

The findings suggest that although the participants (supervisors) were unaware of specific supervision models, they used the three models (unstructured, structured, and semi-structured) according to their levels of curriculum experience proposed by Khoza and Mpungose (2022). The levels of curriculum experience are competency-based (level 1 - lowest), performance-based (level 2), pragmatic (level 3), and natural (level 4 – highest). For example, Supervisor 1 seemed to be influenced by a competency-based curriculum level that has produced a societal identity that promoted the use of an unstructured supervision model where group work is encouraged (Branch & Lee 2020; Shoba 2021). She relied heavily on the opinions of students and other supervisors, where she supervised her students *‘in groups (cohort) so that they can support one another (peer support) and encourage them to join other university cohorts organised by other supervisors, where possible, more support’*. As a result of the unstructured

model, she supervised in completion of the lowest number of postgraduate students among other supervisors, although she had ten years (2014 – 2024) of supervision experience. Her supervision throughput rate seemed affected by the freedom she gave students without responsibilities or accountability. Freedom should come with responsibilities and accountability, even if it has to work within an unstructured model (Branch 2020; Kim *et al.* 2019; Waghid 2019). She believed that the university needed more publications than graduating postgraduate students. This is problematic because HEIs were developed for students more than publications (Abiwu 2024; Saidi 2024).

This suggests that students and supervisors should be aware of their research responsibilities with accountability if they need to be closer to the truth/objective reality of achieving 100% outcomes, since it is unknown and probably unknowable (Fields *et al.* 2018; Prakash *et al.* 2021). It becomes unknown and probably unknowable because the societies that define the truth are unable to prescribe it to the students. It becomes the responsibility of the supervisors and students to search for the truth as defined by those societies. Although Supervisor 1 had a low throughput rate, she exposed her students to various perspectives through social media sites, peer assessments, and other supervisors. The projects were good if they all aimed to acquire socialisation skills (Al-Malah *et al.* 2023; Alevizou *et al.* 2021). However, this may only motivate students whose project needs to address societal needs and promote societal identities because it may be based on the supervisors' beliefs about the importance of other people's opinions (Shoba & Khoza 2022). It is normal to have dropouts and students who demand/request to change supervisor if the supervision process is too flexible and mainly addresses the 'how operational questions' of research (Blair & Guan 2021; Branch & Lee 2020).

Beliefs tend to condition students and think that through people's opinions, they may acquire supernatural powers that may do the job for them without doing it for themselves (Cohen & Billig 2021). This may work against students advancing their professions by addressing professional needs that require evidence of a structured supervision model (Fernández-Batanero *et al.* 2021).

A Structured Supervision Model for Professional Needs

Supervisor 2 seemed to be influenced by a performance-based curriculum level that has produced a professional identity that promoted a structured supervision model where prescribed stages and research steps are demanded (Makumane & Mpungose 2022). He seemed to heavily rely on the HEI professional prescribed

research rules since he students ‘... to strictly follow all the university research rules to finish their qualifications as licenses for their next levels of thinking. ...only use university-prescribed digital technologies ...’. He perceived supervision as a system of producing qualifications that serve as licenses for students to move to the next level. While this may be good for HEIs’ throughput rate and students who need to advance their professions, it may affect students who mainly need to acquire socialisation skills as part of their qualifications. These may be mostly students affected by stress in his supervision system.

However, a structured supervision model is capable of giving enough foundation for investing in specific resources that speed up the process of conducting research when students are drilled with those resources (van den Akker *et al.* 2012). For example, if students use EndNote for referencing and references, they only concentrate on the content of what they are writing because EndNote helps them with clean citations and a list of references. When they use EndNote, they learn how to download references from search engines (such as Google Scholar) to their libraries to save time when they cite. Digital technologies like EndNote train students to concentrate on one issue (step) and properly finish it before they move to the next issue (step) because if step one is not properly done before the next, the system produces errors. If references in the EndNote library are not properly formatted, cited references show technical errors that need to be corrected in the library. In other words, students must concentrate on the proper input to produce proper output within a structured supervision model.

Although digital technologies support students to finish certain parts of their research projects faster and pass the qualifications, they are still used by the students as user interfaces for student survival because none of them help them to achieve 100% marks in their projects. However, evidence from Supervisor 2 responses suggests that structured supervision models may produce more students than unstructured models because he produced 33 postgraduate students within 8 years. According to Khoza and Mpungose (2022), this is just level two of dealing with a curriculum where students should be supported to graduate to a pragmatic curriculum level that helps them find and understand their unique research personal needs, values, and identities.

A Semi-structured Supervision Model for Personal/ Individual Needs

The findings from Supervisor 3 revealed that the semi-structured supervision

model, which is capable of assisting students in understanding their unique research personal needs, values, and identities through self-reflection and critique with countability (Budden 2017; Morgan 2014b; Waghid 2019; Zuma *et al.* 2022). The findings suggest that he used the results of students' self-reflections to establish relevant, unique supervision models for each student. He seemed aware of supervision models and their strengths, which must be aligned with each student's needs. His years of supervision experience suggest that supervisors should work long periods to understand the importance of students' self-reflections. Self-reflection and critique with accountability assist students in selecting and using the most suitable resources based on their needs, values, and identities (Ai 2017; AlDahdouh 2018; Alevizou *et al.* 2021). In turn, students come closer to the truth about the resources they use that may help them avoid stress caused by the pressure of not finishing their studies on time or not aligned with the relevant supervision model (Anderson & Rivera Vargas 2020; Blair & Guan 2021). However, even at this pragmatic level (Morgan 2014b), there is still no conclusive evidence that any model can go beyond being a user interface for survival and producing the truth about supervision so that supervisors and students achieve 100% outcomes all the time. The inability of supervisors and students to achieve 100% outcomes all the time, even after optimising their actions, may confirm that outcomes are naturally driven (Makumane *et al.* 2024; Morgan 2014a; Prakash *et al.* 2021).

A Natural-Driven Identity Supervision Model

Supervisors have tried to optimise the use of structured, semi-structured, and unstructured supervision models, but they are still lagging in their targets. For example, in South Africa, HEI supervisors are unable to produce 5000 doctoral graduates yearly to have 100 doctoral graduates per 1 million people (Matyana & Thusi 2023; Oh 2021). Perhaps supervisors and students should be aware of the sources of what they define as quality education and negotiate it with other relevant identities that influence their actions (McAlpine *et al.* 2014). For example, if they strongly define their activities within professional identities, they may be too knowledgeable about their societal activities and lose their societal benefits. This may mean they are suffering from their success of working professionally while leaving their societies and families behind. However, the key to their joyful lives may be their understanding of their unique identities, which may help them optimise their research actions and naturally accept the outcomes of their actions as they are. This may be achieved through

ongoing self-reflections and critique with accountability (Czerniewicz 2018). Although this may also still be a user interface for survival, it may be closer to the truth about their lives and be able to self-actualise through their research projects (Fields *et al.* 2018; Khoza 2024).

Concluding with Implications

The literature review, frameworks, and findings confirm that the three dominant supervision models are unstructured (societal identity), structured (professional identity), and semi-structured (personal identity) which produce a Natural Driven Supervision Model (NDSM) (Figure 3).

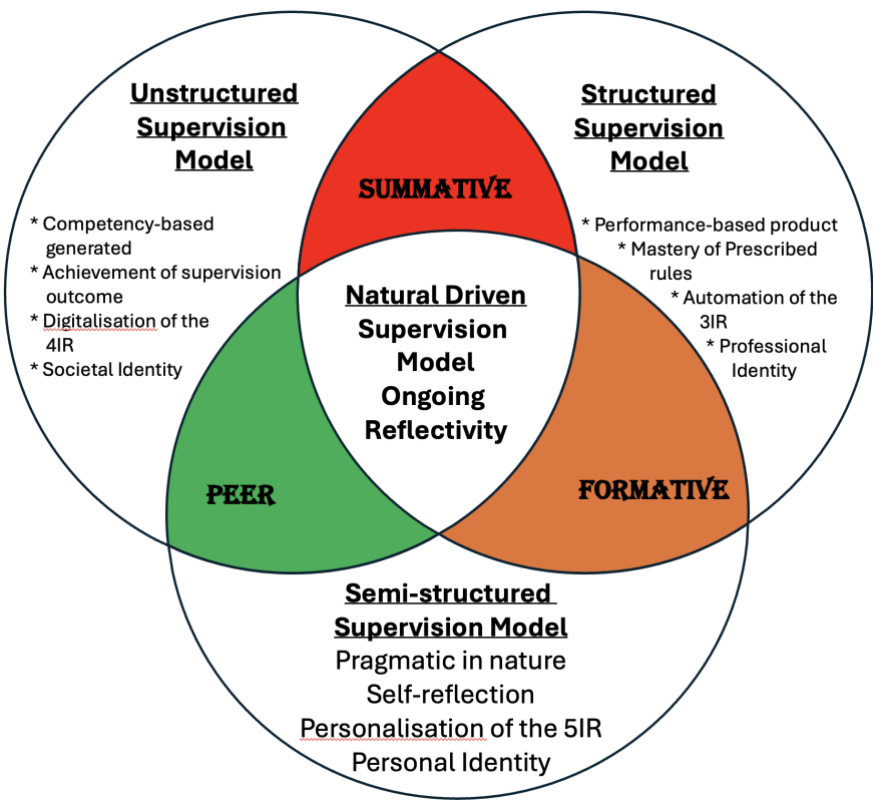


Figure 3: Natural Driven Supervision Model (NDSM)

Unstructured supervision suggests that supervisors' knowledge is generated from a competency-based curriculum, which is about the achievement of outcomes based on the needs of their societies (societal identity). The digitalisation of the 4IR has also contributed to nonlinear processes of using digital technologies (user interfaces) to support the achievement of outcomes through peer activities.

Structured supervision is a product of a performance-based curriculum, which is about mastery of what is prescribed as knowledge of a system (professional identity). The automation of the 3IR has contributed to linear systems of using digital technologies (user interfaces) to support the mastery of prescribed knowledge through summative activities or evaluation.

Semi-structured supervision is pragmatic in nature because it promotes self-reflection as the beginning of supervision processes/systems. The personalisation of the 5IR has contributed to self-reflection and critique with account-ability of using digital technologies (user interfaces) to come closer to the truth of user interfaces and their founders' ideologies that drive the user interfaces through formative activities or evaluation.

However, their limitation in producing 100% outcomes all the time has created a natural-driven supervision model (NDSM) as a contribution to this chapter that needs further interrogation since human outcomes are naturally driven even after humans have optimised their actions to control the outcomes.

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Chapter 14: Developing Transformative Postgraduate Supervision Practices for Early-Career Academics: A Journey of Growth, Guidance and Success

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Abstract

Postgraduate supervision represents both a significant responsibility and a rewarding opportunity for early-career academics. However, the transition into a supervisory role from just being a supervisee comes with common challenges such as inadequate preparedness for the lack of formal supervision training, balancing multiple roles in academia, and issues of power dynamics in supervisory practices, which also lead to conflicts. This chapter adopts a qualitative autoethnographic methodology to critically reflect on my personal journey from being a supervisee to becoming a supervisor for honours, master's and PhD students. The analysis explores the multifaceted nature of the supervisor's role, emphasizing the importance of building trust and rapport, providing constructive feedback, cultivating critical thinking, and offering consistent motivation and support. The discussion highlights practical strategies such as the 'sandwich' feedback method, structured check-ins, and collaborative learning models for fostering a supportive and productive supervisory relationship. This underscores the significance of creating inclusive environments where students feel empowered to thrive, ultimately enhancing the quality of the postgraduate research experience and the development of the next generation of researchers. In addition to helping individual students, this chapter recommends a proactive approach that leads to more impactful and significant research outcomes such as higher publication rates, better research quality, and happier students.

Keywords: postgraduate supervision, early-career academics, collaborative learning, supervisor-supervisee relationships, artificial intelligence

1. Introduction

Early-career academics always encounter challenges as they pass through the transformative journey of being a postgraduate student or supervisee to become a postgraduate supervisor. Challenges include managing time constraints while meeting the diverse needs of students (Alebaikan *et al.* 2023; Winchester-Seeto *et al.* 2014). This transition is not only filled with challenges, but also with personal growth and victories (Masood *et al.* 2023; Wisker 2012). Reflecting on my own personal supervision journey, which began with completing my PhD in 2023, I experienced the crucial role of transformative supervision in shaping a student's ongoing academic success. Being an early-career academic who has had experience in supervising honours students from three South African Higher Education Institutions (HEIs) and taking on the challenge of supervising now master's and PhD students, brought both excitement and anxiety. McAlpine and Amundsen (2011) argued that many early-career academics enter supervisory roles without formal training and instead rely on their own experiences as doctoral students, therefore highlighting this as one of the most significant gaps in academic development. Therefore, in this chapter, I reflect on my personal progress in supervision, including the challenges encountered and strategies that have proven impactful in guiding postgraduate students to complete their research project successfully on time. Through reflexive engagement with my lived experiences across multiple levels of higher degree supervision, this chapter highlights the dynamic relationship between theoretical frameworks and practical experiences in contemporary postgraduate supervision.

Postgraduate supervision is more of a mentorship role than just an administrative task, as it requires a delicate balance between guidance, encouragement, responsibility, and accountability (Green *et al.* 2023; Manathunga 2007). Additionally, early-career academic supervisors often face challenges, such as power dynamics between supervisors and supervisees, managing conflicts, meeting student-specific research expectations, a lack of monitoring student performance, and the ability to adapt to the evolving academic space now dominated by artificial intelligence (AI) tools (Cardona *et al.* 2023). Simultaneously, this rise in AI in HEIs has also changed the dynamics of

postgraduate supervision, posing new distinct challenges alongside potential benefits for early-career academic supervisors. Adapting to this academia requires flexibility and a clear pedagogical framework for early-career academics, who are still refining their supervisory approaches. Therefore, this chapter also examines how early-career academics can create postgraduate supervision strategies that are efficient in balancing different student needs while maintaining academic integrity and using AI as a supportive tool rather than as a replacement for human mentorship in this era of AI becoming increasingly integrated into academic processes. This chapter aims to equip early-career academics with the insights needed to thrive as supervisors in a rapidly changing academic environment.

2. Methodology

In this chapter, a qualitative autoethnographic methodology was employed to examine the journey of transformative postgraduate supervision practices through the lens of my personal experiences as both a former supervisee and an early-career academic supervisor. Based on a study by Ellis *et al.* (2011), I revisited my reflective journals from 2018 to 2024 notes from supervision meetings, anonymized email correspondence, and other documents to trace how my supervisory style has evolved with particular attention to critical incidents that shifted my reshaped my understanding of what impactful supervision looks like. Thematic analysis (Braun & Clarke 2006) was adopted to identify key themes, focusing on the navigation of power dynamics in providing feedback to students, balancing what the institution expects with the need for flexibility, and helping students develop independence through structured autonomy. Ethical rigor is maintained through the anonymization of student data and by constantly checking my own biases (Pillow 2010), while the relevant literature provides external validation of emerging themes. This methodological approach connects my personal experience with the theoretical one, offering empirically grounded yet deeply contextualized insights into how early-career academic supervisors can develop practices that foster both student success and their own professional growth. The autoethnographic approach highlights the emotional and relational aspects of supervision, which are often overlooked in traditional pedagogical research (Gravett *et al.* 2022; Norton *et al.* 2023). I believe that postgraduate supervision is an ongoing, hands-on practice, not just a set of skills you check off a list.

3. A Journey as a Postgraduate Supervisor: Challenges, Victories and Strategies

3.1 Experiences as a Supervisee and First Appointment as a Supervisor

The completion of my PhD in 2023 was a transformative experience that laid the foundation for my supervisory role. The PhD journey was not just about academic growth, but also about personal development, work-life balance, and overcoming personal life and research challenges. This journey not only shaped my academic knowledge but also my supervision goals, and taught me the importance of resilience, time management, and the value of constructive feedback. Janta *et al.*'s (2014) book discusses how students may feel lonely and isolated during their doctoral studies and end up dropping out. This highlights the importance of resilience as a doctoral student and being able to manage time effectively (Bearman *et al.* 2024).

As a supervisee, I learned the significance of a supportive supervisor who fostered independence while providing structured guidance (Lee 2019). These experiences have also shaped my approach to supervision, emphasizing independent thinkers, clear communication, and sub-communities of mutual learning. In addition, I adopted a *Collaborative Cohort Model* for supervision (Burnett 1999). My students (supervisees) learned the culture of supporting one another. For example, once a student has mastered his or her research, that student will also provide guidance to other students. Due to this sub-community of mutual learning, I have created students who support each other beyond my organized meetings. Through this system, I have been able to create a learning community and ensure that I do not become the only one to support students. Through this approach, I am also able to use time efficiently to collectively address issues of feelings of isolation, which causes students to be unable to complete on time (Burnett 1999).

3.2 Early Supervisory Experiences and Lessons Learned

When I started supervising, I was driven by a real passion to give back and help shape the next generation of researchers. However, honestly, I was anxious. I had serious doubts about balancing supervision with all my other academic responsibilities, such as teaching, community engagement, administrative duties, and the usual academic grind. This is a common concern for early-career academics under supervision. Setting boundaries and responding to the diverse

needs of my students were definite learning experiences in the beginning, combined with challenges.

4. Challenges Faced by Early-Career Academics in Postgraduate Supervision

4.1 Lack of Formal Supervision Training

The lack of formal supervision training is a critical gap in academic development, as many early-career academics transition into supervisory roles without formal training, relying instead on their own experience as doctoral students (McAlpine & Amundsen 2011). Transitioning from being a doctoral student to suddenly being responsible for supervising other postgraduate students is a huge turning point; however, early-career academics often find themselves thrown into this role without much preparation (Pyhälä *et al.* 2024). Unlike teaching and learning, where there are usually workshops and trainings, supervision is often treated as a ‘*learn as you go*’ or ‘*learning through trial and error*’ (Abakah 2023; Ventista & Brown 2023). One is expected to somehow copy or absorb skills by reflecting on what their own supervisor/s did or just figuring it out as you go, which can leave early-career academic supervisors feeling lost. This is also evident in the studies by Fragouli (2021), Halse (2011), and Masuku (2021), highlighting that supervisees become research supervisors by reflecting on their postgraduate supervision programme or course and the impact of doctoral supervision on supervisors’ learning. Therefore, creating a supportive environment for both postgraduate students and supervisors who are still in their early careers is essential for their academic and personal growth, fostering a sense of belonging and reducing staff turnover (Akpey-Mensah & Muchie 2019).

4.2 Balancing Multiple Roles in Academia

The role of early-career academics is multifaceted and comes with complex responsibilities, including postgraduate supervision, which forms a key component. Early-career academics are expected to excel in research and teaching, engage with communities, and contribute to administrative university services. All these duties put pressure on early-career academic supervisors, as they need to align these duties with institutional expectations in research outputs, and this is a balancing act that requires comprehensive skills and a

robust set of coping mechanisms (Rosa 2022). This is also referred to as ‘*triple burden*,’ as early-career academic supervisors are expected to juggle all these duties with excellence. These competing demands can significantly detract early-career academic supervisors from their capacity to provide the dedicated supervision that postgraduate students require (Group 2017). The emphasis on research output for career advancement, pervasive pressure to ‘*publish or perish*,’ secure grants and build a strong scholarly profile (Shalaby *et al.* 2020). This situation is further complicated by the diverse range of teaching commitments, such as managing large course loads, mentoring students, and implementing pedagogical innovations, as well as administrative and service roles including committee work, peer review, and contributions to institutional governance (Hénard & Roseveare 2012; Marshall *et al.* 2011). It has been observed that institutions often fail to fully recognize the workload associated with postgraduate supervision, which is often treated as ‘*invisible labour*’ (Odularu & Akande 2024). This oversight can create a challenging situation for early-career academic supervisors, as they may face unsustainable expectations in terms of the support and guidance they provide to students (da Silva 2021).

As an early-career academic with almost 7 years of experience in HEIs, I normally teach 3 modules consisting of +/- 250 undergraduate students and +/- 30 postgraduate students, though enrolment numbers differ every year. Furthermore, I successfully supervised 50 honours students from the three universities. As an early-career academic who is new to postgraduate supervision (especially for master’s and PhD students), this becomes a strain due to the workload, which causes limited time for in-depth feedback, resulting in delayed student progress. Similar findings were found by Hillbrick and Jucks (2019), who found that early career academics supervise an average of 5-8 postgraduate students while managing 2-3 courses per semester, with little institutional support. Therefore, institutions should account for supervision workload and formally allocate hours, just like teaching duties, to avoid conflicts or disagreements that might arise and delay students’ progress in their research projects.

4.3 Power Dynamics in Supervisory Practices

The supervisory process or practice involves the power dynamics that early-career academic supervisors need to pay careful attention to. They must always balance providing constructive feedback while fostering students’ independence in research, enabling them to confidently explore their research interests while still receiving the necessary support (Odularu & Akande 2024). This

balance becomes even more complex when AI tools are integrated, potentially complicating supervisory relationships. AI tools such as ChatGPT, Elicit, Scite, Deepseek, and QuillBot reshape supervision practices in many ways. As many students adopt these tools to write, find literature, and analyze their research, early-career academic supervisors encounter difficulties adapting to AI-augmented supervision and ensuring that students adhere to academic integrity (Cotton *et al.* 2024). These tools disrupt traditional supervision practice, which is more of learning through conversations and feedback provided in the context of an ongoing relationship. Therefore, the ethical implications of these AI tools must be carefully considered while maintaining a human touch, which is essential for effective supervision (Zawacki-Richter *et al.* 2019).

It has been observed in the literature that there are issues of power in supervisor and supervisee relationships caused by supervisors, demonstrating their inherent personality traits, tendencies, and natural learning in their role as supervisors, which might clash with supervisees' expectations or research needs (Odularu & Akande 2024). For example, a supervisor who is not naturally empathetic might not show more compassion towards their students, or a supervisor who is not highly organized might not establish clear protocols that could meet students' needs and expectations. This behaviour might continue, since the supervisor might exercise his or her power in supervision, even if the student is unsatisfactory. In addition, power dynamics are visible, especially when the supervisee is not prepared for the postgraduate programme, which exacerbates the conflict that might arise during the supervision practice (Odularu & Akande 2024).

4.4 Supervisor - Supervisee Conflicts in Supervision Practices

Conflicts in supervision can arise from misaligned expectations, poor communication, disagreements on research methods, or supervisors' different working styles. Therefore, it is important to tackle these issues to prevent them from escalating and to perceive this conflict as a learning exercise. For example, in my supervision experience, there was a disagreement about the methodology, and we then decided to conduct a joint literature review together with the student to find a solution. This exercise transformed this conflict into a learning opportunity. Conflict resolution training can also be valuable; one study suggests that it can significantly reduce escalated cases and boost student satisfaction (Min *et al.* 2020). By proactively working together and showing empathy, one cannot only preserve the supervisory relationship but also show

students how to navigate professional conflicts.

As early-career academic supervisors, one way to ease potential tensions is by setting clear guidelines from the start. Even with the best efforts, some conflicts might be difficult to resolve on their own, highlighting the need for institutional support. Keep an eye out for warning signs, such as consistently missed deadlines or breakdowns in communication. In addition, addressing performance issues early can make a significant difference. If you spot these early, you can escalate the issue through formal channels, such as university mediation services, before things become too strained. In extreme cases, it might be necessary to reassign supervisors or suggest well-being referrals, but these should be the last resort after trying all collaborative solutions (Managing Conflicts in Social Work Supervision 2024). By seeing conflicts as a normal, manageable part of academic supervision and mentorship, early-career academic supervisors can strike a balance between accountability and support, ensuring that challenges become opportunities for growth, rather than roadblocks. Normalizing conflict resolution as a key skill can help create an environment in which both supervisors and students can build resilience and develop professionally (Peggs 2023). As noted in the findings on African Universities of Technology, engaging in collaborative mentorship programs can foster a supportive environment. The importance of clear supervisory guidelines and managing learning relationships at the doctoral level is critical for getting off on the right foot and staying on track (Lubbe *et al.* 2005).

5. Effective Supervision Strategies for Student Success

5.1 Building a Strong Supervisor-Supervisee Foundation

It is important to set clear research goals, deadlines, and communication methods from the outset to avoid potential misunderstandings of the supervisory relationship. A practical approach I always adopt is to discuss a supervision memorandum of understanding (MoU) with the supervisee in our very first supervision meeting. This MoU serves to clarify expectations, outline key project milestones, and ensure everyone is on the same page (Keane 2016). This approach has been effective in preventing misunderstandings and enhancing productivity while keeping the research project on track. A written supervision agreement outlining expectations and milestones has been shown to improve student-supervisor alignment and reduce conflicts (Tikkanen *et al.* 2024). Research indicates that structured agreements foster accountability, particularly in research projects in which ambiguity can lead to delays (Lee 2019). There-

fore, providing students with a documented framework ensures transparency and helps them manage supervisee and supervisor responsibilities effectively.

A structured plan for supervisory meetings to ensure regular check-ups is outlined in the MoU (Keane 2016). Setting weekly or bi-weekly structured meetings, whether face-to-face or via digital platforms (such as MS Teams and Zoom), is critical for consistent research progress tracking (Daramola 2021; Keane 2016). Establishing manageable short-term goals, such as submitting a draft literature review or completing a methodology chapter, keeps students engaged and motivated (Daramola 2021). Studies have shown that when students and supervisors interact regularly with a focus on specific goals, they tend to feel less anxious, produce better research, and improve research output (Yende 2021). In addition, utilizing shared online platforms such as Google Docs alongside peer support groups can create a more collaborative learning environment for supervisees (Burnett 1999). Supervisors also experience some sort of burnout during the supervision process; therefore, engaging in peer networks, whether through formal workshops or informal discussions, can be beneficial to the early-career academic supervisors. Participation in supervisory communities of practice provides emotional support and shared problem-solving strategies (Huet & Casanova 2022). Evidence shows that mentorship among supervisors enhances reflective practice and reduces burnout (Ali & Coate 2013). Institutions that facilitate supervisor development programs report higher satisfaction and better student outcomes (Duke 2017).

5.2 Building Trust and Rapport

Excellent postgraduate supervision is not just about academic guidance but also about creating a space where students feel supported and confident to succeed. The heart of effective supervision lies in the ability to build genuine trust and rapport. Research emphasizes that supervisors who actively demonstrate an interest in their students' development while fostering an inclusive, respectful environment tend to cultivate more productive supervision relationships (Daramola 2021). This involves maintaining approachability through consistent availability and open communication channels, practicing active listening to understand students' perspectives and concerns, and intentionally acknowledging their milestones and achievements to reinforce their sense of belonging to academia (Ngulube 2021). Regular informal check-ins, such as quick chats about challenges and aspirations, can significantly strengthen this bond between supervisors and supervisees. Equally important is showing cultural sensitivity,

which is especially vital in diverse academic settings from the outset, as these are necessary within which meaningful supervision can flourish (Daramola 2021). Combining these elements creates a supportive foundation that enables both academic growth and personal development.

5.3 Providing Constructive Feedback

Effective feedback is essential for student growth; however, its impact depends on how it is delivered. A well-structured approach, such as the ‘sandwich’ method, begins with strengths, addresses areas for improvement, and concludes with encouragement, helping students receive constructive criticism without feeling discouraged (Bastola & Hu 2024). To maximize effectiveness, feedback should be timely and specific, targeting concrete aspects of work rather than the student personally (Bearman *et al.* 2024). Supervisors can further enhance learning by prompting self-reflection through open-ended questions and guiding students to critically assess their own progress. Importantly, feedback should be framed as part of an iterative dialogue, reinforcing that revision is an integral, not a punitive, part of scholarly development (Zhang & Gao 2024).

5.4 Facilitating Critical Thinking

The development of independent research skills and critical thinking is at the core of effective postgraduate supervision. Supervisors play a pivotal role in cultivating these abilities by creating an intellectually stimulating environment where students feel empowered to challenge assumptions and consider diverse perspectives (Sibiya & Mahosi 2025). Practical strategies include facilitating brainstorming sessions to spark innovative approaches, posing thought-provoking, open-ended questions that deepen analytical skills, and structuring regular opportunities for students to present and refine their work through peer feedback. These methods not only foster academic autonomy but also prepare students for the complex problem-solving demands of scholarly research (Usman *et al.* 2023).

5.5 Motivation and Support

The postgraduate research journey often presents significant challenges, with many students experiencing periods of self-doubt, frustration, or difficulty in managing time effectively. Effective supervisors recognize these common

struggles and provide crucial emotional and academic support by normalizing the difficulties inherent in the research process (Gunasekera *et al.* 2021). Practical support strategies include offering flexible deadlines or adjusting timelines to accommodate individual learning needs, encouraging peer collaboration and mentorship opportunities, and helping students develop personalized approaches to time management and stress reduction (Fragouli 2021; John, n.d.). This balanced approach acknowledges the emotional dimensions of research, while maintaining academic rigor, ultimately fostering resilience and sustained productivity (Peggs 2023).

6. Conclusion

Transformative postgraduate supervision is an ongoing journey for early-career academics that demands intentional guidance, pedagogical skills, emotional intelligence, and commitment to growth. As demonstrated in this chapter, successful supervisors combine structured approaches (clear expectations, delivering constructive feedback) with adaptive strategies (motivation and emotional support, flexibility) to meet students' diverse needs. The key practices discussed, from establishing trust and rapport through active listening to fostering critical thinking through open-ended questioning, collectively contribute to a supervisory model that nurtures both academic excellence and personal growth. By embracing these supervisory competencies, early-career academic supervisors can create a professional environment that is transformative and foster intellectual curiosity, resilience, and a sense of belonging to their postgraduate students. As higher education continues to evolve, these human-centered yet rigorous supervision practices remain essential for sustaining quality research and fostering inclusive academic communities.

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Supervision in Transformation Indaba Praxes

Chapter 15: A Reflection on Postgraduate Supervision Practices: A Case of One University in KwaZulu-Natal Province

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Abstract

The role of postgraduate studies in the enterprise of a research university cannot be underrated. Therefore, good supervision is expected to provide valuable support and mentorship to postgraduate students. Various scholars have argued that a supervisor must fully understand their role clearly in show-casing that their students complete their studies. However, others have posited that the lack of formal training of supervisors in fulfilling their roles, delays the student to complete their studies. Consequently, it is necessary that supervisors should keep reflecting on the ways in which they supervise their postgraduate students. Thus, this paper seeks to reflect on and evaluate our postgraduate supervision practices, especially as mid-career academics and supervisors. Operating under the interpretivist paradigm, the study uses a qualitative research approach, and it adopts action research methods. Participants include two lecturers in the field of language education and are also researchers in this study. Besides, nine postgraduate students form part of the sample. Interviews, telephone conversations, observations, and document analysis are used as data generation methods. Data analysis is done using thematic analysis. Among findings, the study reveals that while our supervision strategies are helpful to the students, we need to improve on the ways in which we provide feedback and turnaround time in providing feedback. The need for group supervision was identified as a tool to provide opportunities for sharing ideas. The study concludes that as supervisors, our methods of supervision are helpful, even though we need to improve on certain

areas. The study has implications for further research that will focus on experienced supervisors who are senior academics, and their supervision styles.

Keywords: Postgraduate studies; Reflective self-study; Researching in isiZulu; Supervision practices; Supervision strategies; Students' voices

Introduction and Background

Knowledge transfer is an inevitable process in higher education where research outputs are largely associated with the production of Master's and Doctoral graduates (Van Rensburg *et al.* 2016; Dladla & Ndlovu 2019). In South Africa, the higher education system has a challenge of substantial growth in postgraduate enrolments since 1994. However, graduation rates for doctoral programmes are much lower than desired, yet the numbers have doubled in recent years. Therefore, there is some noticeable growth especially when considering the supervision capacity in the system. There are many reasons for lower doctoral graduation rates, such as, increasing burdens for academics to supervise the students and that many students in South Africa and internationally are under-prepared to conduct research studies (Masuku 2021).

Numerous studies reveal that research supervision plays a significant role in the success of postgraduate students (Sonn 2016; Vereijken *et al.* 2018; Mhlahlo 2020; Fragouli 2021). This suggests the need for a good supervisor. Therefore, the role of a supervisor in providing a supportive, constructive and engaged supervision process is important. Existing literature confirms that academics who are PhD holders can supervise postgraduate research studies. The assumption is that they are qualified to do so. The range and depth of concepts of supervision a supervisor holds will dictate how they supervise and what type of a researcher will emerge at the end of the process (Masuku 2021). Azure (2016) states that supervisors should be able to efficiently supervise because they also engage in research.

However, many studies have revealed that some supervisors are not good enough to be able to provide the necessary support to their postgraduate students (Masuku 2021; Alam *et al.* 2013; Adams & Noronha 2015). This is consistent with some studies which have revealed that delays in postgraduate completion are due to poor quality supervision (Sidhu *et al.* 2014). Studies have pointed out that poor supervision of postgraduate students is due to factors such as students' poor writing skills, overloaded supervisors, and students' poor

planning and management of their studies. Alam *et al.* (2013), too, claim that poor supervision causes completion delays of postgraduate students' studies. Hence, there is an urgent need to improve supervision in higher education.

Adams and Noronha (2015) advise that supervisors need to be helped and directed on how to train research students, from students completing an undergraduate research paper right through to PhD level. These researchers mention that across the higher education sector, many supervisors are struggling, as they lack good supervision strategies. Zewotir, North, and Murray (2015) have expressed that many postgraduate students do not complete their studies within the given timeframe and others drop out. Nevertheless, some studies on postgraduate supervision state that the dynamics of the process of supervision is influenced by students' and supervisors' existing characteristics, such as their prior knowledge and skills (Masek & Alias 2020), their values and expectations (Manathunga 2007), and their goals for the supervision (Abiddin *et al.* 2009).

Conducting this study was therefore based on the results of many studies that point at the lack of good supervision as the foundation to delayed completion or poor postgraduate studies. We felt we needed to reflect on our postgraduate supervision practices, so we can improve in what we are doing. The objectives for this study therefore, were, (1) to evaluate the effectiveness of our postgraduate supervision strategies and practices, and (2) to get our students' views regarding our supervision practices. The research questions are aligned with the research objectives.

Conceptual Framework

This study uses the concept 'mentoring' as a conceptual framework. Mentoring is a phenomenon where an expert, or someone experienced in the field, provides training to a less-skilled individual. Different scholars have defined the concept of mentoring. For example, Vumilia and Semali (2016) advocate that mentoring refers to all activities geared toward guiding, counselling, monitoring, supervising, and supporting the student. This assertion is in line with Ambrosetti (2014), who attests that mentoring concerns the development of the relationship between the mentor and mentee, which in turn provides the underpinning for the growth of the mentee's skills. Bearman *et al.* (2007) state that mentoring is an interpersonal relationship that comprises a series of purposeful, social interactions, and it involves pairing young people with an older peer or volunteer, who acts as a positive role model. This is further attested by Rubbi-

Nunan *et al.* (2023), who emphasize that the mentoring relationship ought to be based on trust, confidentiality, mutual respect, and sensitivity. Again, this concurs with the KMP House of Mentoring (2020), which asserts that trust is the glue that holds relationships and organisations together, and that trust is one of the most important elements in the mentor-mentee relationship. In simple terms, a successful relationship between a mentor and a mentee requires a high degree of trust from both parties.

This conceptual framework is appropriate to this study because, as supervisors, we provide mentorship to our students, our mentees, with the knowledge and skills that we have, which we believe are relevant to the role of supervisor, who is required to mentor, nourish, guide and lead the student on their journey towards achieving a postgraduate degree. As supervisors holding PhDs, we are qualified to supervise Honours, Master's and PhD students, therefore, it will be helpful to listen to the students we supervise, so we can reflect on our practices, and improve where required.

In the School of Education, there is a memorandum of agreement between the supervisor and the student, in which both parties need to sign before they begin their working relationship. This memorandum of agreement emphasizes that the relationship between supervisor and a candidate in a research degree is one of mentorship. In this way a supervisor should advise about the structure of the degree, should direct the candidate to sources and material, may suggest better forms of expression, but in the end the thesis/dissertation must be the candidate's own work (UKZN: Memorandum of Understanding between Supervisor and Candidate 2023; UKZN: Postgraduate Supervision Agreement 2014).

Research Methodology

We chose a qualitative research approach to conduct this study. As opposed to quantitative research (that relies on measurable or numerical data), qualitative studies gather non-numerical data on how people live, think and respond to different situations. Accordingly, qualitative studies may be conducted to get insights into people's experiences, behaviour, beliefs, and attitudes. A qualitative approach naturally involves observing the population and conducting in-depth interviews or focus group discussions (Corner *et al.* 2019; Cohen *et al.* 2018). Also, the study operated under the interpretivist paradigm. According to Nickerson (2024), the interpretivist paradigm focuses on understanding the subjective meanings and experiences of individuals within

their social context. In addition, this type of paradigm uses qualitative research methods that focus on individuals' beliefs, and motivations to gain understanding of social interactions.

This study also adopted participatory action research methods. Participatory action research emphasizes that participants should be members of the community being studied, empowering those directly affected by outcomes of that research. In this method, participants are effectively co-researchers, with their lived experiences considered formative to the research process (George 2024). Participants included two lecturers in the field of language education and were also researchers in this study. In addition, nine postgraduate students formed part of the sample. These students were selected purposively, as we targeted only those doing their Independent Research Projects through the medium of isiZulu at Bachelor of Education Honours level, as well as those conducting Master's and PhD studies in the medium of isiZulu. We included these students to get their views on how they experience supervision support from us as their individual supervisors, as well as other supervisors in the isiZulu Discipline. It is important to note that at Bachelor of Education Honours, Master's and PhD levels, students choose the medium of instruction in which they want to be taught or supervised. We have fewer students who conduct their research in the medium of isiZulu, as compared to those who prefer English as a medium of teaching and conducting research. For example, at B Ed Honours level, about 250 students are registered for the course (English and Zulu students combined). Out of the 250 students registered for the Independent Research Project course at B Ed Honours level, only 14 conducted their Independent Research Projects in the medium of isiZulu. The same applies at Master's and PhD levels. Most of the students prefer to conduct their studies through the medium of English, the second language of many. This is the reason in this study, we had three students at B Ed Honours level; three at Master's level; and three at PhD level, as part of the sample for this study.

Face-to-face interviews, telephone conversations, observations, and document analysis were used as data generation methods. Data analysis was done using thematic analysis. Issues of trustworthiness were observed. Once the data analysis was completed, we sent the report to the participating students for them to check if what we wrote was a true reflection of the information they provided. We gave them liberty to edit the report wherever they felt it was contrary to their statements and actions. However, they did not change anything as they approved what was written. Also, ethical issues were taken into consideration. This included obtaining informed consent of the nine students

who were part of the sample, their rights to participation in the study, permission from the gatekeepers, the issue of confidentiality, etc.

Findings and Discussion

The findings presented below are in line with our research objectives (1) to evaluate the effectiveness of our postgraduate supervision strategies and practices, and (2) to get our students' views regarding our supervision practices. Therefore, in the discussion we will associate what we perceive as the effectiveness of our postgraduate supervision strategies and practices, with our students' voices that support what we say regarding our supervision practices. In doing so, both our research objectives will be addressed under each heading. This therefore suggests that each of what we view as an effective strategy and practice, will be supported by the students' statements.

The Effectiveness of Postgraduate Supervision Strategies and Practices and our Students' Voices

The following themes will be discussed: Supervision contract; supporting the student on conceptualising the topic; thesis organization and layout support; group supervision and seminar presentations; remaining relevant throughout the process; providing effective and timely feedback; student-supervisor relationship; support in relation to academic writing skills; communication between supervisor and student; peer review; and disseminating research.

Supervision Contract

A supervision contract for postgraduate studies is an agreement between a student and a supervisor that outlines the roles and responsibilities of each party. This agreement should establish a mutual working relationship and ensure accountability. Furthermore, it should also be in line with principles of academic freedom and integrity. At the University of KwaZulu-Natal, the supervision contract entails that both the supervisor and the student commit themselves to striving for a productive, trustful and honest working relationship, aiming for the achievement of a research degree award, which can be best achieved by adhering to the principles contained in this contract (The University of KwaZulu-Natal, Postgraduate supervision contract 2014). In the School of Education of this University, the memorandum of agreement between the

supervisor and the student, emphasizes that the relationship between supervisor and a candidate for a research degree is one of mentorship. In this way a supervisor should advise about the structure of the degree, should direct the candidate to sources and material, may suggest better forms of expression, but in the end the thesis/dissertation must be the candidates own work (UKZN Memorandum of Understanding between Supervisor and Candidate 2023; UKZN: Postgraduate Supervision Agreement 2014).

Before one agrees on supervising a student, usually, we must ask ourselves why we need to supervise that student. A supervisor is either approached by the student to be their supervisor, or they must select the students from the list sent by the research office, according to the area of specialization. Once the supervisor has agreed to supervise the student, they would start by filling out the appointment of supervisor form, and send it to the research office, so it is on records who supervises the student. Once all procedures are followed, the supervisor must contact the student and set an appointment date. In the meeting, the supervisor would be discussing with the student what they want to do in the study. Signing a supervision contract between a student and a supervisor is important. However, this requires that both the supervisor and the student should honour the supervision contract. For example, if we both agreed that the turnaround time for a student to receive feedback is within the period of three weeks, this needs to be honoured. Of course, we try to honour the supervision contract, so our students do not lose trust on us. For example, three students were quoted saying:

I do not want to lie, my supervisor does his best to meet with me whenever we have an appointment, and the feedback I receive from him is super brilliant. **(Anna)**

Right from the beginning we both signed a contract, and both of us adhere to it. I have an amazing supervisor. If for any reason she won't be able to meet with me, she does not make a mistake, she lets me know, and we reschedule the appointment. **(Nonto)**

Sometimes I fail to meet the agreed submission deadlines, if I feel I have not done adequately, according to her expectations. I do not want her to push me, but I must show enthusiasm, so she is also encouraged. **(Aphiwe)**

Not honouring the supervision contract has been reported to influence the study

completion. However, the supervisory agreement may be affected by various factors. For example, some students enter the postgraduate education environment with inadequate knowledge of research methods (Lessing & Schulze 2003) or academic writing skills (Singh 2011; Strauss 2012) and have little prior knowledge about roles and responsibilities on conducting research studies (Lee 2010). They may not be able to progress through the postgraduate programme without significant development of the required skills and adequate support. Therefore, it might not be fair to put a blame of the study delays on the supervisor, instead, both the student and the supervisor must account.

According to the University of KwaZulu-Natal supervision agreement (2023), the supervisor should have the leadership abilities to not only provide appropriate direction for the student, but to help students to develop appropriate networks in their field. Similarly, appropriate completion and safe keeping of supervision record is essential to document the progress of a student in the post-graduate program and to keep an audit trail of the decisions made during supervision meetings. As supervisors, we are committed to supervising our students and to honour the supervision contract, so they can complete their studies at a reasonable time. However, it must be noted that some of our students fail to complete their studies at a reasonable time, but usually, this is due to various factors. For example, the student was not well, or they had family related issues which impacted negatively on their work. If a student is open to share their difficulties, we encourage them to suspend their studies for that semester if they are confronted with challenges which impact negatively on their studies.

Supporting the Student on Conceptualising the Topic

Effective conceptualisation of the research topic is key when beginning any research project. This involves selecting a topic and developing a research question that is researchable. A well conceptualized research topic helps ensure the research is focused and it will be able to produce a useful information. A supervisor's role in conceptualizing a research topic includes providing guidance and support, and helping the student develop a coherent research design. In line with this, as supervisors we help our students to conceptualize their research topics successfully. Here, we encourage students to start by reflecting on their interests and hobbies. This allows them to consider topics that genuinely intrigue them and which they feel curious about, and that which they feel motivated to explore further. Usually, this happens during the first meeting between the supervisor and the student. Here we discuss what the

student wants to research, what makes them want to conduct such a study, and what they want to achieve by conducting such a study. Usually, during this meeting, we check if a student requires help in refining the topic. For some students, the topic is clear, and focused, while for others, there is a need to assist them refine the chosen topic, to ensure it is researchable. Also, at this meeting, we give the student an opportunity to present both the research questions and the objectives to the study. Usually, the meeting is 90 minutes long. At the end of the meeting, we ask students to evaluate the session. This usually helps us as we get the sight of how the student has experienced the session. Before we conclude the session, we plan for the next meeting. This is evidenced in the students' quotations below:

Truly speaking, when I started, I was passionate about doing my Masters, but it was difficult for me to work out the topic clearly, although I knew what I wanted to do. My supervisor assisted me so much to shape it. During this time, I was all over the place, hahahahaha! (Sheshile)

Whether you like it or not, you need a supervisor. You can't just be on your own. When I started dreaming about doing a PhD study, my supervisor made me think more than I could imagine. One just takes things for granted. With the support and guidance of your supervisor, you feel at ease, no fear, and once you are guided correctly, you just feel you are the owner of this study. (Musa)

Badenhorst (2021) affirms that research conceptualization is challenging for doctoral and master's students engaged in thesis writing or writing for publication. Therefore, as supervisors, the stage of research topic conceptualization is crucial, as it is where the student needs to get guided, so they feel motivated, instead of getting discouraged. Failure to get proper guidance may result in deregistration, which is not what we anticipate.

Dissertation or Thesis Organization and Layout Support

Once the student completes data generation and data get transcribed, usually, we talk about a thesis organization and layout, so they have a clear picture of how they need to organize their report once they complete data analysis. We advise our students to not wait until it is too late, to start writing an introductory

chapter and a literature review chapter earlier, keeping in mind that these will need to be updated until the research report is completed. Generally, we start with a lecture, explain different sections that are essential in the research, and how they should be presented during the write-up process. At Honours level, more support is required on this, as it is where students need to grasp the research concepts, understand each part of the research project, so that they find it easier to organize their Independent Research Projects. For example, in guiding our students for the thesis layout, we emphasize a need to use a consistent spacing between headings and paragraphs; use a consistent in-text reference style; ensure captions are clear and represent the figures or tables they accompany; use Roman numerals for page numbers in the preliminary pages of the thesis and table of contents, and Arabic numerals for the rest of the thesis. The mastery of such skills is vital when the student is still at Honours level, as these would also be required for the development of their Master's dissertations. By the time they are at PhD level, most of our students can organize their work meaningfully. The examples of students' statements below coincide with how we perceive our practice in relation to this topic:

I learnt at Honours level how to organize a dissertation. There must be consistency in everything, and your work must be presented logically. My supervisor encourages me to check how others have organized their work, and that helped a lot. **(Nonto)**

You can't just do whatever you want because your work will look untidy, and you know your supervisor won't be quiet about it. Just need to organize your thesis in the way others do at UKZN, just check published UKZN theses and dissertations, and try to organize the work just like others do. It helps to have a model thesis. **(Sizwe)**

The format for the University of KwaZulu-Natal dissertations and theses outline includes: Preliminary pages (title page, preface and declaration, dedication, acknowledgements, table of contents, list of figures, tables and acronyms (separately presented), abstract, then the main text, followed by the list of references, then the appendices (UKZN, Guidelines for presentation of Masters and PhD dissertations/theses by research 2015; UKZN (Graduate School of Business & Leadership): Postgraduate Student Guide 2020). However, we are not aware of a thesis/dissertation outline document that is available specifically for the School of Education.

Group Supervision and Seminar Presentations

One of our strategies that we find productive is group supervision. Here, we plan a meeting in advance, invite all the students that we supervise. Usually, we begin with a lecture, whereby one or two of us present on a certain aspect of the research project. Normally, every member of the group we invite is at the same stage of their project (research proposal stage or write-up, for example, literature review section, research methodology section, or data analysis). This gives them an insight into how they can structure their own work, either at research proposal or write-up stage. After we finish presentations as supervisors, we allow question and answer discussions, so that each student benefits from the presentation. This is followed by students' presentations of their own work. Each student is given 15 minutes to present, and critiques from peers and the supervisors should come next. This entails that a student joins the session well-prepared, to be an active participant in the group discussions. This is done either through contact or virtual modes. In addition to this, as a Discipline of isiZulu, we organize seminars for our Honours, Masters, and for our PhD students, where all the Discipline supervisors and their students come together and share ideas. The same routine is followed, as students are given the opportunity to present their work and supervisors and peers provide constructive feedback. We encourage respect for one another even if a student gives a poor presentation. We find seminars very useful, as this is when each one of us is afforded the opportunity to hear what other supervisors view his/her student's work. In other words, the student not only receives feedback from their individual supervisor, but from a group of supervisors, including those who are not her/his own. Below are examples of some of the students' statements:

We meet at an agreed date, and each one of us presents their work. You will get feedback from peers. This is very beneficial to me, and others as well. **(Khanyi)**

Our seminars are vibrant. The feedback I receive from supervisors and peers is very fruitful. **(Sizwe)**

I prepare myself well to be able to present with confidence. But I really enjoy the seminars, they are very good. **(Ntuthuko)**

As seen in the statements above, students are encouraged to present their own

work, while also motivated to give feedback to others, which becomes a good learning experience to both the presenter and the peers. Also noted is that students see the need to get prepared for their presentations. All this contributes to their learning. This coincides with Steenkamp and Brink (2024), who evaluated the effectiveness of peer learning (discussion forums, peer review and group work) employed in a postgraduate research module, and found that peer learning facilitated cognitive, behavioural, collaborative and social engagement. Also, these researchers found that reviewing comments on discussion forums and peer reviews on peer written work, developed students' communication skills and fostered a sense of community. In addition, these researchers remark that peer reviews allow students to obtain feedback on their writing prior to their work being graded. Also, Malan (2020) elaborates that where students are given an opportunity to work together and critique each other's work, a final potential benefit is increased student engagement, which then contributes to their improved performance.

Remaining Relevant throughout the Process

It is our duty to provide guidance to our postgraduate students, from Honours degree through to Doctoral studies. At any level of study, as supervisors, as stated earlier in this paper, we guide them from the conceptualization of the topic, until they graduate. This also requires that as supervisors, we ensure that our relationship with students, takes on a more collaborative, mentoring role. Our role is to facilitate development of research students who are creative, critical, and able to push the boundaries of frontier research. The students' statements below, are testament to this:

My supervisors are always relevant. There are always there for me, to guide me, and when I need help. **(Aphiwe)**

Ever since we started, I can see I am getting somewhere. The kind of supervision I receive is extraordinary. **(Musa)**

I am about to complete my study, and there is no part of my work that I do not fully understand. From the beginning, I am journeying with my supervisor. This is not to say she does my work, no, but she only guides me, clarify for me wherever I am confronted with fear and confusion. **(Bhekani)**

There is no point I doubt my supervisor. He is my strength. He was my Independent Research Project supervisor at Honours level. I couldn't look for a better supervisor. I am satisfied having him as my supervisor. (Sheshile)

As evidenced in the statements above, this simply means that being relevant as a supervisor entails, among others, that a supervisor should be able to advise the student on identifying a specific, and significant problem or gap that needs to be researched. This also means that a supervisor should advise a student, so their research is able to address an issue that matters to the intended audience. In simply, being relevant should mean that the supervisor is able to guide the student, being present at any stage of their research, until the project is completed, and the student can graduate.

Providing Effective and Timely Feedback

McCallin and Nayar (2012) remark that good quality feedback to students is essential (and should alert the students to the areas in their work that need improvement. Ineffective feedback can create tension in the supervisor-student relationship and impede learning and achievement (East, Bitchener & Basturkmen 2012). Therefore, as supervisors, we try to prioritize giving our students effective, constructive, and timely feedback on the same document that the student submitted, and we do this through track-changes. Also important to note is that praising and appreciating a student for showing improvement in their writing when providing feedback, has positive results.

It is good to see your supervisor appreciating your efforts. Such appreciation of my work, and those praises are indeed motivational. (Khanyi)

Howells *et al.* (2017) observes that appreciation is vital to improving supervisory relationships, including building trust, enhancing communication, and improving self-motivation and creativity. Also, Morin (2024) states that teachers who use praise regularly tend to have better relationships with their students. When students feel that supervisors are honestly telling them what they did well, they are more willing to continue to work hard, and to look for strategies to overcome obstacles.

Turnaround time is important to monitor the period the study should

take. Turnaround time simply refers to the amount of time it takes for a supervisor to read and provide feedback on a submitted piece of work, typically including the time from when they receive the document to when they submit their feedback. This happens according to what was agreed upon when both parties (supervisor and student) signed the supervision contract, at the beginning of the research journey. However, due to unforeseen circumstances and heavy workload supervisors may be confronted with, it happens that feedback takes longer than it was anticipated. This usually creates problems between a student and the supervisor.

The following are some of the students' statements:

I receive timely feedback, always very effective and constructive feedback. **(Sizwe)**

From the beginning, we agreed to meet on monthly basis. It has been like this since then, and I trust that I am going to complete my study on record time. **(Ntuthuko)**

Nethsinghe and Southcott (2015) and Lim *et al.* (2019) concur that providing feedback on the same document and ensuring it is timely, is a good strategy. Adams and Norohna (2015) emphasize the importance of diagnosing what the student's writing problem is. For example, the supervisor might find it difficult to understand what the student was trying to say, or they struggle to structure their thinking and writing, or they have inadequate knowledge of grammar and expression. In this case, the supervisor needs to be careful about choosing appropriate feedback. It is for these reasons that we try our best to provide feedback that will address all the inadequacies contained in the writing. For example, some feedback will focus on expression, some on conceptual understanding, some on referencing, and so on.

In line with the above studies, Ali *et al.* (2016), comment that a supervisor should provide timely and constructive feedback, and encourage the students to work independently, as well as present their work when opportunities arise. They further state that a supervisor is expected to help students understand their shortcomings and to help them manage their research in a timely manner. In the same vein, Betts (2009) asserts that constructive feedback can only be effective if the message the supervisor wants to convey corresponds directly with how the student perceives it. As a result, good communication skills are essential to engage with students successfully (Betts 2009).

Student – Supervisor Relationship

We believe our relationships with students we supervise are what many researchers believe is required of a student and supervisor. As novice supervisors, we may not boldly say we have perfect student-supervisor relationships, but the student evaluations make us believe that we have good relations with them. This includes the way we speak to our students, the kind of feedback we give, the time we spend supervising them, the care we demonstrate; all this contributes to making stronger bonds between ourselves and the students we supervise. For example, in their evaluations, some of the students said:

I have trust in my supervisor. She is like my sister. I don't know how I would cope with the study stress if she was not there for me. We are not friends; we are like partners. We share a lot, and this is what keeps me going. Even when I don't do well, she does not harass me. I am really very grateful to have her. She is very approachable. **(Aphiwe)**

Having a good supervisor-student relationship is what I count as one of my blessings. This is how I feel. He nurtures me in every respect. I feel very motivated.

Our relationship is perfect, we do not have any issues. Yes, he is strict because he does not want me to relax, but to work, *Nkosi yami* [My God!], he can't do the work for me...When I am sick, he understands me, and if for whatever reason I need help, he makes sure to answer all my questions, then I go! **(Bhekani)**

Consistent with the sentiments expressed by students in relation to supervisor - students relationship above, Yende (2021) explored the factors of effective postgraduate student-supervisor relationships. He found that poor relationship between student and supervisor has an impact on the success of postgraduate studies. Also, Ali *et al.* (2016) mention that an effective supervisor is expected to be friendly, approachable, and aware of the standard of work expected from a student.

Building and maintaining effective relationships is vital for both postgraduate students and supervisors. As Ismail *et al.* (2017) state that the student-supervisor relationship is widely acknowledged as a pivotal factor in shaping postgraduate experiences and outcomes. This assertion is in line with Odularu and Akande (2024), who confirm that the supervisor-supervisee

relationship enhances students' academic and career development. Zhu (2022) states that a supervisor-student relationship is in essence an interpersonal relationship, and its formation and change cannot be separated from the interaction between supervisors and students. Also, according to Parker-Jenkins (2018), a better supervisory relationship can help improving students' overall satisfaction with the study. At the same time, a poor supervisory relationship can lead to depression and even dropout (McAlpine 2017). As we reflect on our supervision practices, we feel our actions are not in contradiction with the university expectations, about how we relate to our students.

Support in Relation to Academic Writing Skills

Academic writing skills of postgraduate students are vital for them to conduct their research effectively. This is due to the high demands placed on the quality of their studies (Ooi *et al.* 2022). Many of our students whom we supervise at postgraduate studies have not yet mastered academic writing skills. For example, some struggle using academic language, instead they use colloquial language, with lots of language and grammar errors. These include spelling errors, poorly constructed sentences, incorrect paragraphing, verb agreements, punctuation, and so on. They also demonstrate incompetence in using research concepts. To deal with the problem, we try to organize sessions whereby we train them on academic writing. We organize two sessions per annum, as we find it valuable. Although we put effort on dealing with this problem, students continue to commit errors in their submissions. In addressing this problem, we use track changes on the submitted document and ensure we provide constructive and effective feedback. As they continue to make their submissions, we then note a reduction of errors, even though the document may not be error free.

Mhhmm, academic writing is nobody's home language. Hahahaha! When you write, you think *uyashaya* [you are doing your best], only to find that, wow! Truly speaking, initially, I had poor academic writing skills, but now, yes, I am trying my best, he does not have many comments that point at my writing. I have improved drastically. **(Anna)**

I was unaware of so many language and grammar errors when I started, but she taught me how to write academically. When I go back to my previous drafts, I even laugh at myself when I read her comments. I feel

like I was stubborn, as she would keep telling me one and the same thing I am better now, but ja, I still make some mistakes, but I feel like I am getting there. The sessions regarding academic writing skills are also very helpful. **(Sheshile)**

Schulze and Lemmer (2017) remark that the ability to write according to the conventions and forms of disciplinary academic writing is essential to success at university. Likewise, Albertyn, Kapp and Bitzer (2008) and Lessing (2011) have mentioned that the lack of academic writing skills in postgraduate students has been identified as a major obstacle to the successful completion of the dissertation, among a range of problems encountered by supervisors and students during supervision.

Communication between Supervisor and Student

Usually, we communicate with our students on a face-to-face basis. However, we try to be flexible as some of our students stay far away from the university, and others are from nearby countries like Zimbabwe and Swaziland. It is therefore not always feasible to meet face-to-face. In cases like these, we use other modes of communication, which include e-mail, telephone, WhatsApp calls or meetings via Microsoft Teams. Checking with the student is of utmost importance as they might not be financially stable to always consult on face-to-face basis. Such strategies are helpful to both us and our students, for convenience purposes. Below are some of the examples of students' statements in relation to this:

As I am an international student, it feels like my supervisor and I see each other frequently. We communicate regularly, and that happens via WhatsApp, email or a normal call. **(Nonto)**

We communicate in various ways, for example, [Microsoft]Teams or Zoom meetings, e-mail, or WhatsApp. All this works for me very well. I have no stress. **(Musa)**

Mncina *et al.* (2024) and Quecano *et al.* (2024) state that ineffective communication in postgraduate supervision is a significant issue and can have a negative impact on university research productivity and student dropout rates. A lack of communication may cause students to feel isolated and disconnected, and this

may hinder their ability to learn. This is the reason we try to communicate with our students frequently, avoiding them to feel neglected, while noting they need to work independently. This is also in line with Castelao-Huerta (2024), who emphasizes that positive aspects of supervision that are highly valued by doctoral students include, among others, good communication, informal interactions, collaboration, meaningful and encouraging feedback, emotional support, and role modelling. This finding is significant because, as Casey *et al.* (2022) state, supportive supervision, which includes good communication between the supervisor and the student, has a crucial effect on doctoral students' mental health, reducing emotional exhaustion, leading to better outcomes.

Peer Review

Peer review refers to critical peer reading, as a strategy that involves students working together according to specific criteria and then providing, and likewise also receiving informal formative feedback to improve their reading and critical thinking skills (McLeay & Wesson 2014). Kwai-peng (2023) states that peer review is a useful learning tool for students, which provides them with opportunities to interact with their peers when engaging in the process of critical reading and critical thinking, thus possibly raising students' motivation to learn. Here, we encourage students to swap their works, and each to read and provide feedback to another's work. We find such a strategy having a positive impact as students learn from and correct each other, which in turn improves their writing skills. Once the student gets feedback from their peers, they do corrections, based on the comments should they find them useful. Such work comes to the supervisor with less errors. The strategy seems to have a positive effect on building stronger interpersonal relations among students. Below are two of the students' quotations:

I will never forget on my first day, having to present to my peers! I was so nervous, but my supervisor can make you feel at home, same as my fellow students. They are very supportive and can make you feel like, you know what, all these are here to help me, they are not fighting with me. (Ntuthuko)

When you get feedback from fellow students or supervisors, you just need to have a positive attitude and should never take anything personal. Peer reviews are very constructive We have very good relations as

peers, as well as with one's individual supervisor, and all the supervisors who are not your own, who are in the Discipline. (Sizwe)

The above statements are in line with Mulder *et al.* (2014) who state that peer review is fundamental to academic endeavour, but opportunities for students to benefit from peer review in higher education remain limited, and relatively little is known about how student perceptions influence their appreciation of peer review. Also, Burgess *et al.* (2021), state that peer review is necessary for promoting reflection on individual behaviours; providing opportunities to develop their own professional skills, good relations among students and is considered key to student success. These researchers further state that giving and receiving peer feedback has the capacity to provide an effective learning experience for students, creating reflective students, who can analyse their own performance.

Being a Mentor in Disseminating Research

Explaining to our students the benefits of disseminating research by writing peer reviewed research articles and presenting at conferences is of prime importance. For us to do this, we create a supportive environment for them to get confidence to engage in these research activities. We facilitate peer support and collaboration among our students and encourage them to share their research with each other and with other audiences, before the paper can be presented at a conference or submitted to a peer reviewed journal.

Conference Presentations

As supervisors, we provide mentorship to our students, motivate them to work and finish their research projects while also developing to become good conference presenters. We encourage our students to present at conferences. It is our duty to assist them identify suitable conferences for their topic and goals. This includes providing them with a list of relevant and reputable conferences in their field. We also advise them on how to choose between different types of presentations, such as posters, oral presentations, or workshops, depending on their preferences and objectives. We offer them feedback and suggestions on how to write an effective abstract, proposal, or paper, and how to follow the conference guidelines and deadlines. This helps them practice and polish their presentation skills, and with this, they receive constructive criticism and encouragement. Below are some of the examples of students' statements:

He encourages us to work in collaboration, and my peers and I have become a very good team. We check each other's work when we prepare ourselves for conferences. **(Sheshile)**

I am not afraid to stand in front of people at a conference. The mock presentations that we have with our supervisors shape us to be who we are. My dissertation is towards completion now. I get feedback from others, work out the errors identified, so I end up with a stronger paper. This prepares me for my research report writing. **(Khanyi)**

His encouragement is amazing. I have attended more than three conferences, where I presented my papers with my supervisor and fellow students. **(Anna)**

I have a list of conferences; it is only up to me to choose the one I am interested in. Having a supervisor who guides you is a blessing indeed. **(Nonto)**

My supervisor is so helpful, she is my mentor and is there for me, so I am confident with my work. I have my own flops, but she is very patient with me. Not only is she helping me with my study, but she encourages me to present at conferences, write research papers. One of my articles which I co-authored with her has been published. I am so happy. **(Khanyi)**

Donnelly and Fitzmaurice (2017) emphasize the importance of supervisors to be good mentors to students they supervise, mentioning that they need to act as facilitators of learning, rather than presenting themselves as experts. It is therefore important for a supervisor to develop their students as potential future academics, who are also good researchers, while also monitoring the progress in their research projects.

Peer Reviewed Journal Articles

We encourage our students to publish journal articles. Firstly, we try to assist them with the preparation and submission process of a manuscript for publication, offering them feedback and suggestions based on each component of the paper. Below are some of the students' statements in relation to this heading:

My supervisor is very helpful and the support I get from her is amazing.

I did not know how to even work out the paper for publication. But with the help I receive, I can even write the paper on my own now. **(Musa)**

His dedication in supervising me is unbelievable. Yes, he criticizes me, but his comments are very constructive. **(Sheshile)**

When I started, I could not even write an abstract for a conference paper or a manuscript to send to a journal. My confidence has improved, in such a way that I even assist my fellow students. **(Bhekani)**

Marson and Ferris (2023) state that postgraduate students must be provided with guidance on the process of academic publishing, selecting the correct journal relevant for their discipline, and how to respond to the peer-review system. They further mention that supervisors should be trained to assist their postgraduate students, so they are effective in assisting them in publishing and dissemination of their research results. However, Richards and Fletcher (2019) remark that there is often insufficient training of supervisors to help students in this regard.

Conclusions

Based on the findings discussed above, we feel we are not in contradiction with what is expected of a supervisor who supervises a postgraduate student in conducting their research studies. Our findings reveal our postgraduate supervision strategies and practices are effective, in that students find them useful and they feel supported in their research journey. The gaps that students have identified, for example the feedback turnaround time, is helpful to us as we will try to improve on this area, in ensuring that we do not disadvantage our students, which may result in delayed completion of their studies. We therefore found it helpful to listen to the voices of our students, as it assisted us to reflect on our actions, so we can change the ways we do things; in ensuring we provide adequate support. Our students' voices are in line with how we evaluate ourselves, as their statements support our self-evaluations about our supervision strategies and practices.

Our findings are consistent with the literature available, which explains the qualities of a good supervisor. Most researchers globally seem to have a similar view on characteristics of a successful supervision. The kind of mentorship we provide to our students seem to have a positive effect as

evidenced through the students' statements quoted in the discussion. It is motivating to note that what we do to mentor and support our students, is also what they note and appreciate. The need for group supervision was also identified as a tool to provide opportunities for sharing ideas. Also important is that while we monitor the progress of our students' research progress, we try to also develop them as future researchers. It might also be useful for the supervisors to have a thesis/dissertation outline available specifically for the School of Education. The study concludes that as supervisors, our methods of supervision are helpful, even though we need to improve on certain areas, for example, the turnaround time in providing feedback, even if we may have other responsibilities.

We are of the opinion that more needs to be done to empower supervisors about research supervision skills. We also think that the study has implications for further research that will focus on experienced supervisors who are also senior academics. Such a study should focus on their supervision strategies and their impact on students' completion of their studies.

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Chapter 16: Supervising the Big Shots: A Research Supervisor's Reflections on Supervising High-ranked Educationalists

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Abstract

Research supervisors are deemed experts in supervisory relationships; they hold intellectual authority over research topics and processes and implicit authority over supervisees, whom they must ensure will conduct research progressively and ethically. Supervisory roles thus contain embedded power, which, by institutional expectations, must be ethically enacted. But what happens when supervisees are Big Shots outside the supervisory relationship - meaning they hold high-ranking social positions? What happens when they exert power over supervisors, as they do over subordinates outside of the university environment? This chapter critically deliberates on this probability by drawing from the author's autoethnographic accounts on navigating supervision relationships with power-seeking Big Shots. A reflexive thematic analysis of these accounts uncovers how elements inducing negative power relations between the supervisor and power-seeking Big Shots play out. Consequently, this chapter imparts how supervisory processes can be redressed to establish amicable supervisory relations between supervisors and Big Shot supervisees.

Keywords: supervision, power, contestation, educationalists, autoethnographic

Introduction

In 2019, political and academic communities worldwide applauded the achievements of a high-ranked South African politician. Minister Naledi Pandor, a long-serving Parliamentary Minister, successfully attained her Docto-

rate from a South African university. The minister was undeniably a Big Shot in South African political and educational circles. Big Shot (as applied in this chapter) is a colloquial term used among South Africans to describe those with power and authority who assume high-ranking, influential, professional and social positions (Barrett 2004). In this chapter, the term Big Shot denotes postgraduate students who, like Minister Pandor, held high-ranking, influential positions in their workplaces, particularly within the Educational field. Among them were school managers, curriculum advisors, local and international heads of education departments, national directors employed within the South African Department of Education, and lecturers in higher education institutions.

Despite Minister Pandor being a Big Shot, her research supervisor (also the conferring university's Dean of Education) recollected how the minister established the rules of engagement from the inception of their supervisory relationship. He publicly praised her for demonstrating her respect for his supervisory role by pronouncing that she would call him Professor while requesting that, being his student, he should address her only by her first name (Gower 2019; Petersen 2019). Additionally, the supervisor professed that despite being high ranking, the minister did not misuse her status as a national government leader to attain privileges over other students or among the university's staff (Gower 2019). Instead, her supervisor commended her humility and academic work ethic, describing her as 'the kind of student every supervisor would like to work with' (Gower 2019; Petersen 2019).

On the other hand, though, not all research supervisors can echo such sentiments. As Dinham and Scott (1999) recognise, 'the student-supervisor relationship has the potential to be wonderfully enriching, but it can be equally difficult and devastating' (Dinham & Scott 1999). This chapter focuses on the difficult and devastating supervisory relationships, particularly in instances where certain Big Shots - as students, and unlike Minister Pandor - seem to expect superior treatment in supervision spaces simply because they are educational leaders in their workplaces.

Background

Access as a supervisor to supervisees' registration records revealed that many of my postgraduate supervisees had tasted the sweetness of power, owing to distinguished positions held in their workplaces. Weighing the sweet tastes of power against the pleasures and risks of supervision, Grant (2003) recognises

power as ‘a dirty word not spoken of in the codes and guidelines’ (Grant 2003: 179). Likewise, this so-called dirty word is inadequately considered in the prevailing supervision guidelines of the institution where I supervise research studies, despite the probability of power clashes erupting within traditional one-on-one student-supervisor relationships (Ramathan, Cassim & Pather 2023). Whereas rules and procedures to address conflict eruptions exist in the broader scope of policies directing institutional governance, supervision guidelines seem silent on strategies to prevent conflict situations. This burdens me as a supervisor, particularly in cases where students are Big Shots, to assume the responsibility of establishing a conducive supervisory environment.

In search of theoretical recommendations, I turned to the scholarly literature. A review of studies on supervision guidelines for supervisors revealed that research on the wonderfully enriching aspects of supervision (Dinham and Scott 1999) is widely available. In contrast, while research on the difficult and devastating parts (Dinham & Scott 1999) is also widely available, there is a tendency in such studies to blame supervisors when the supervisory relationship is devastating and difficult (Cartwright 2020). Hence, many of these studies implore supervisors to express sensitivity towards supervisees while disregarding the supervisees’ part in frustrating the supervision relationship.

Considering the above, this chapter focuses on the difficult and devastating parts of my supervision experience among Big Shots. It draws on autoethnographic reflections of occasions where I (the author of this chapter and a research supervisor) was on the receiving end of difficult and devastating behaviours of particular Big Shot supervisees. In particular, I critically consider where and how, within the supervisory arena, Big Shots asserted self-proclaimed positional power (Capurchande & Almlöv 2024). My principal agenda was to reflect critically on these occurrences and learn how to forge amicable supervisory relations, particularly with egocentric Big Shots I might supervise. Furthermore, I considered my reflections within the framework of related research because I wanted to impart knowledge to others who may experience similar situations from a theoretically informed position. This chapter honours that intention.

Labelling Big Shots: Ethical Deliberations

In this chapter, Big Shot denotes a collective label for research supervisees in high-ranking social positions. I am mindful that my former research supervisees might self-associate with the label from the scenarios described in this chapter

and become offended by how the label is ascribed. However, considering that the label is affirmingly used in society to recognise the social status of highly ranked, powerful, and influential individuals (Barrett 2004), its use in this chapter is not intended to be pejorative. If anything, the connotations of the label are quite the opposite. Even so, throughout this chapter's discussion, I am also cognizant that, like Minister Pandor, some Big Shots are disinclined to seek eminent treatment in the supervisory relationship. Therefore, I highlight that this chapter alludes only to condescending and egotistical Big Shots seeking to impose their positional (workplace) power onto the supervisory relationship, undermining the supervisor whilst frustrating the supervision process. In places where I refer to such individuals, I am mindful to avoid being homogenising and to instead use words like 'some', 'certain', 'particular', and 'specific' to distinguish them from other Big Shots.

In addition, beyond ethical obligations to anonymise Big Shot's identities, I emphasise that my primary intention in this chapter is to focus specifically on elements within certain Big Shot characters that produced negative supervisory relations. Furthermore, I intended to learn from a critical reflection on these elements instead of placing Big Shots' individualities under the analytical lens. For this reason, apart from anonymising the Big Shots' identities, I deliberately do not use pseudonyms to name individual Big Shots or to distinguish between them. I also intentionally do not mention their ages, employment positions, racial categorisation, or postgraduate study level. Instead, in this chapter, the label Big Shots refers collectively to individual supervisees who expressed similar attitudes and behaviours, which, whether or not intentional, caused the supervisory relationship to become difficult and devastating (Dinham & Scott 1999).

Also, as evidenced throughout this chapter, in my deliberations of the phenomenon in question (i.e. supervising Big Shots), I have adopted an autoethnographic approach whereby much of what I discuss pivots on my reflexive accounts of my personal experiences (Fourie 2021; Koopman, Watling & LaDonna 2020). Hence, I intended to focus a reflexive analytical lens on the phenomenon, not intrinsically on the Big Shots (Levitt 2021; Tarisayi 2023). I recognise the opportunity for subjectivity and bias within the adopted approach. On the other hand, autoethnography, by design, enables me to interrogate my subjective position and biased views theoretically rather than dismissing my subjectivity and pretending my personal biases do not exist (Poerwandari 2021). I also recognise that the findings in my theoretical

deliberations are only generalisable to the phenomenon (Levitt 2021; Tarisayi 2023) and ‘not to broader populations’ (Tarisayi 2023: 59).

A reflexive thematic analysis of my autoethnographic accounts (Terry and Hayfield 2020) on supervising Big Shots yielded a critical finding: the existence of Trojan Horses within the supervision arena. In the discussion that follows, I reveal these Trojan Horses. I describe how their infiltration jeopardised supervisory relations. I further deliberate on the strategic points identified by the analysis, through which Trojan Horses infiltrated my supervision arena. I reflect on the impact of their infiltration. I further deliberate on how Trojan Horses can be managed so that, despite the nature and purpose of their presence, an amicable supervisory environment might be forged within the supervision arena amid their existence.

Trojan Horses of Supervision Arenas

Briefly explained, the concept of the Trojan Horse originates from Greek mythology. It is the name given to a wooden horse believed to have been used by the Greeks to infiltrate the Trojan city of Troy during what is widely known as the Trojan War. According to legend, combatants hid inside the Trojan Horse, and upon entering Troy, they plotted to emerge from inside the horse at an opportune time. The plan was to open the gates of Troy for more warriors to enter, destroy Troy, and ultimately win the war (Chondros *et al.* 2015). Thus, the Trojan Horse is meant metaphorically as a concept. It is used in everyday conversation to describe a strategically positioned entity that conceals destructive elements within itself until a viable time arrives for its contents to escape and ambush the chosen target.

An analysis of autoethnographic reflections on my supervisory experiences found that the Trojan Horses of my supervision arena, responsible for the difficult and devastating parts of my supervisory practices (Dinham & Scott 1999), were, in fact, some of the Big Shots themselves. Like the legendary Greek Trojan Horse, specific Big Shots clandestinely transported destructive elements into the supervisory space, jeopardising amicable supervisory relations. These were emotional elements, invisibly residing within specific Big Shots personas, which were outwardly enacted through antagonistic behaviours. Outward expressions of these elements exposed a suppressed desire within some Big Shots to be treated superiorly in the supervisory space because of their prominent social statuses. Like the mythical Greek Trojan Horse in the city of Troy, these internal elements lay dormant within the identified Trojan Horses

of my supervision arena until strategic opportunities arose to discharge their emotional loads. The section below identifies strategic locations for their discharge.

Showgrounds for Trojan Horses

The analysis of my autoethnographic reflections identified two common spaces that served as showgrounds for Big Shots wanting to express suppressed power-seeking desires. These were the postgraduate administrative and supervision consultation spaces.

Administrative Spaces

Mandatory processes within the administrative spaces of postgraduate supervision comprise several critical stages. These include the initial stage, where the official contractual supervision agreement between the student and supervisor is signed; the proposal writing stage; the proposal defence phase; the ethical clearance application stage; and once the research report is compiled, comes the stage for submitting a formal intention to subject the thesis to examination; the post-examination thesis correction stage follows; and, finally, preceding graduation, is the stage where the final version of the thesis is submitted to the university's respective research office for the postgraduate qualification to be conferred. Within several stages, certain Big Shots (the identified Trojan Horses of the supervision arena) located strategic opportunities for power-seeking displays. Below, I identify each stage and reflect on how, within each stage, the power-seeking agendas of the Trojan Horses played out.

The supervision journey is formalised by signing a student-supervisor contract at the commencement of the supervision relationship. Resonant with what Masuku (2021) describes, supervisory contractual agreements are meant to direct how the thesis process should administratively unfold through the various supervision stages. The supervision agreement is meant to direct that process practically. Its purpose, thus, is to set the scene for the practical parts of the supervision course by outlining the supervisor's practical role and detailing expectations from students regarding the quality of submitted work and submission timeframes. The agreement also documents times and frequencies for mandatory supervision meetings and submitting and receiving supervisor feedback on submitted drafts. The proposal writing stage commences once the student and supervisor understand, agree, and sign the supervision agreement.

The analysis of my reflections on the stages of this process yielded that Trojan Horses seemed to emerge in the journey's latter stages only once this agreement was signed.

Reflecting on the proposal writing stage, I recognised that many Big Shots were unreceptive to critical feedback on their written drafts. Rather than constructively discussing the shortcomings, their queries were intentionally argumentative. This raised the alarm on certain Big Shots wanting to tip the supervisory power scales in their favour. The expectation, it seemed, was that I, the supervisor, should adjust my views on their work to align with what they wished to be told rather than them addressing the highlighted concerns. There also seemed to be a belief among Big Shots that my role as a supervisor was to address theoretical and technical errors in their drafts so that their progress towards the defence stage would not be hindered. Correspondingly, Maistry (2015) highlights the detriment to the progress of students who are ill-prepared for their proposal defences. An analysis of my experiences among my Big Shot supervisees suggested that the journey of higher learning was, for them, especially those at the doctoral level, merely an insignificant part of the process towards attaining the esteemed academic title to complement their prominent social statuses. Jansen (2023) highlights the extent to which some people would go to gain such titles. For example, only a few months preceding Minister Naledi Pandor's doctoral celebrations (Petersen 2019), news reports on the murder of a university professor sent the academic community into deep mourning (Jansen 2023). The murder victim was a well-renowned senior academic who exposed a syndicate that sold doctoral certificates. This occurrence highlighted the desire of many in South African society to receive postgraduate qualifications, even if it meant attaining this through fraudulent and murderous means.

Moreover, the professional identity of the fraudster signals the extent to which some academics are willing to advance equally corrupt postgraduate qualification seekers (Jansen 2023). The mastermind of this fraudulent trade was found to be a lecturer. He also orchestrated the professor's murder. His behaviours can be likened to the Trojan Horse I alluded to earlier in Greek mythology. Therefore, while there may be many socio-economic and political factors underlying why some academics would resort to such criminal behaviours, it nonetheless signals the dangers that Trojan Horses of supervision arenas pose to their supervisors. It further highlighted that among academics as well are Trojan Horses who work hand-in-hand with corrupt students and who are a dangerous threat to their colleagues.

Following the proposal writing stage is the stage for defending the proposal before an appointed panel of reviewers. My reflections identified this as the stage where the Trojan Horses would most likely discharge their loads. For certain Big Shots, the most explicit display of supremacy, entitlement, self-prominence, and arrogance was expressed in this stage. In proposal defences, I witnessed how individual Big Shots publicly negated the supervisory role and the academic seniority of panel members. In such cases, they challenged panel members' examination proficiencies, particularly when panel members criticised the theoretical aspects of the proposal. Arguments would ensue between panel members and the Big Shot in question. This arrogant behaviour embarrassed me and my peers and jeopardised the supervision relations between Big Shots and panel members. They jeopardised their own prospects of their proposal being approved by the review panel.

The ethical clearance application stage follows the proposal defence stage. In this stage, once the amended proposal receives official approval, supervisees must apply for ethical clearance from the institution's ethics committee. Once again, certain Big Shots did not heed my advice at this stage, nor that of the people who reviewed the ethics applications at the various levels. Rather than addressing the shortcomings of their applications, they became confrontational. This resulted in the ethical application becoming caught in the administrative system. In some cases, their refusal to comply with ethical requirements led to this stage being the final point of their postgraduate journey. In such cases, they remained silent until they were administratively excluded from the postgraduate programme.

For supervisees who proceed past the ethical clearance stage, the field research and write-up stage ensues until such time (within the parameters of institutional deadlines) that supervisees are ready to formally declare their intention to subject the thesis to examination. Once examined, the onus rests on the supervisee to address concerns that examiners may have raised. The role of the supervisor is to guide this process. For certain Big Shots, this phase presented yet another opportunity for arrogant displays of undermining behaviour and expressed reluctance to correct the study's shortcomings. The analysis of my reflections on this behaviour flagged a disturbing belief among them; they seemed to think they had already passed by submitting their thesis for examination. This expectation hinged on the condition (in their cases) of the institutional examination rules. The rules specify that, in cases where minor corrections are needed, the supervisor is responsible for the final approval of the thesis. When the Big Shots in question discovered that I was not prepared

to dismiss unaddressed errors before approving their study, they reacted aggressively.

Following the post-examination thesis correction stage is the submission stage of the final version of the thesis to the university's respective research office. On final approval from the supervisor via the relevant administrative structures, this is the stage at which supervisors will officially receive a written notice confirming that their thesis meets the requirements of the prevailing institutional expectations. This stage also presented equal elation for the Big Shots in question and me, but for divergent reasons. I celebrated successfully emerging from the supervision arena despite the barrage of attacks from Trojan Horses received along the course. Hence, for me, it was a celebration of the end of my time with the Trojan Horses of supervision.

However, in my final reflection of the Trojan Horses within the administrative spaces of the supervisory arena, I concluded that - even though many Big Shots' undermined my supervisory authority within the critical stages of the research administration process, in this space, their agendas seemed to be driven by a deep-rooted desire to be revered as high-ranking educationalists among the university's community. Although they became hostile when they perceived that desire as being undermined, undermining my supervisory authority in the administrative spaces of supervision seemed secondary to their aspirations for recognition. However, my reflections on what unfolded in supervision consultation spaces told a different story; in this space, the analysis exposed a deliberately undermining Trojan Horse agenda to unbalance the supervisory power relations, with the scale tipping in their favour.

Supervision Consultation Spaces

An analysis of my reflections on Trojan Horses within supervision consultation spaces illuminated the difficult and devastating challenges (Dinham & Scott 1999) that can arise when a supervisor's positional power and personal identity are deliberately destabilised by particular supervisees. In my supervisory experience, this scenario involved Big Shots who sought to emphasise that their social statuses were above mine. This inferred a belief among them that, by social standards, I should treat them superiorly and be subservient in their presence.

Verbal interactions with certain Big Shots provided opportunities for these power contestations. A critical reflection on these engagements revealed a tendency among these Big Shots to weigh my competencies as a research

supervisor against my professional rank level. Furthermore, being ranked lower than a professor yet supervising research studies brought my supervision capability into question by them. The tendency for Black women in academia to have their credentials and capabilities called into question this way is not an unfamiliar phenomenon (Zulu 2020). My feelings on this experience resonate with what Gazzola (2018) found on the negative emotional effects on supervisors who are undermined by their supervisees; I found these judgements against me to be extremely destabilising.

In addition, specific Big Shots further weighed the supposed incongruence between my professional rank and academic capabilities against my age. The implicit agenda in this enterprise was to further destabilise my confidence and self-esteem as a supervisor by negatively illuminating what my age inferred outside the institutional environment and my social standing compared to theirs. By the prescribed standards of many African cultures, it seemed that because the Big Shots were older than I, they considered themselves my elders. Hence, by cultural codes, the expectation was that I should treat them as my seniors in physical and verbal exchanges, irrespective of the content or context of such exchanges. This revelation illuminates the impact of age disparities in creating relational imbalances within the supervisory relationship, particularly when a supervisor is younger than the supervisee, also proving that in this scenario, the Big Shots' judgements against me were driven by a deliberate, relegating agenda. It also highlights that while the scholarly literature on the oppression of women is ever-expanding, there is a dire need for a conversation on the gendered nature of oppression to turn the focus on the oppression of women by women in academic spaces. In cases where this may be found, again, the plethora of scholarly literature on the topic portrays students as supervisors' victims.

Furthermore, considered against cultural standards, one may be justified in affirming the Big Shot's implied expectations of me to treat them superiorly because, by such standards, they were inarguably my elders. However, by institutional standards and ascriptions, being a supervisor to my so-called elders rendered me a victim of reverse ageism. Whereas ageism refers to discrimination against older people by younger people on account of age (Steward *et al.* 2023), reverse ageism is a term used to describe an occurrence when a younger person is discriminated against by an older person based on age. Also known as youngism and adultism, reverse ageism typically refers to workplace discrimination against persons under forty years old by older people (Raymer *et al.* 2017). Although I was older than forty when I embarked on the

supervision of the Big Shots alluded to in this chapter, the ones I refer to in this section were much older than I. These Big Shots expressed reverse ageism through infantilising behaviours towards me.

Wallace (2022), who explores the intersectional relationship between power and infantilism, explains that in situations of infantilisation of one adult by another, ‘power relations become moral ones’ (Wallace 2022: 27), meaning that not only would the person being infantilised acknowledge that another is ruling over them, but they would feel, on moral grounds, that there is a moral obligation to allow that form of a power imbalance to continue. My reflections on the power dimensions of my experienced infantilism underscored that among my Big Shot elders, I was infantilised by both female and male Big Shots, but more so by females.

In my experience, older female Big Shots who expressed infantilism against me did so through spoken conversations and professional email communications. In such instances, they would use words such as angel, my darling, my child, and even my baby to address me. Although they used sugary tones and their intentions may thus be interpreted as an obscure intention to be endearing towards me, I found it emotionally destabilising in the supervision arena. Amplifying that I was younger than them and inferior by general social standards was an impactful strategy to undermine my seniority as their research supervisor. A critical reflection of my feelings against the chosen terms of reference suggested that addressing me by these terms was meant to be belittling.

Additionally, infantilism expressed through written and spoken communication also suggested discomfort among my so-called elders to address me by my professional title (i.e. Doctor). On the contrary, I noted that the same Big Shots who addressed me using infantilising titles emphatically self-addressed as Mr or Mrs in written emails and physical engagements. This may be interpreted as basic expectations among Big Shots to be addressed by their titles, not by their first names. However, at a deeper level, it suggests that, based on my lower age, I was expected to use these terms of reference (Mr and Mrs) to demonstrate my respect for them as my elders. Hence, as my social superiors, the expectation among them was that I should address them in a socially appropriate manner, regardless of the context.

While my male Big Shot elders were not inclined to use endearing terms of reference towards me, they expressed infantilism towards me frequently in supervision consultations. In such instances, I experienced older male Big Shots similarly veering away from the academic work meant to be

discussed in consultation meetings and lapsing instead into narratives of their political history for extended periods. They would ignore my alerts that the time lost in their narratives encroached on my other duties. In such scenarios, I, as the notably younger supervisor, was frequently reminded that I was not born in the historical period of their reminiscence. Although the historical narratives of their lived experiences were informative, the context was emotionally destabilising. In these engagements, they disregarded my professional identity and the professional supervisory processes.

On the outskirts, one may consider the reminiscent disclosure of older male Big Shots' detailed political pasts as an endearing attempt to forge a friendly supervisory environment. However, a deeper analysis of this against the induced emotional discomfort unearthed their disregard for my time and their disinterest in using that time to address the academic work. Most importantly, when analysed further against internalised cultural hegemonic generational norms among these men in question (Dharani, Vergo & April 2021), the analysis unearthed internalised sexist, passive misogynistic and inherent patriarchal undertones in their supervisory engagements.

Managing Trojan Horses

Institutions tend to be honoured when Big Shots like Minister Pandor graduate from their programmes. However, simply by the fact that a Big Shot is high-ranking, one cannot know from the onset who, like Minister Pandor, will make the supervision relationship a wonderfully enriching experience (Dinham & Scott 1999) or who will create a difficult and devastating supervision relationship (Dinham & Scott 1999). Therefore, Big Shots should not be deterred from postgraduate spaces on the stereotypical assumption that they are generally egotistical because they are high-ranking. As in the legend of the Trojan Horse, saving the city of Troy by barring the Trojan Horse from entering (or perhaps even destroying the horse) may, on the surface, seem like the most logical route the Trojans should have taken to prevent Troy's demise. However, when one reconsiders this possibility against the Trojans' ignorance of what resided within the wooden horse, one realises they had no reason to be suspicious of its presence in their city, especially not to destroy it. Only when its purpose was precariously revealed did they realise, too late, what its contents meant for them.

Likewise, in the case of egotistical Big Shots, while it may seem logical at the surface level to address unfavourable supervision relations with certain

Big Shots by collectively denying them access to the postgraduate programme altogether, denying them access would be generally unfair and unreasonable (not forgetting unethical and illegal) for many reasons. Therefore, proactive steps must be taken to accommodate Big Shots, whose personas might be inclined toward making the supervisory relationship difficult and devastating. Supervisors need to ensure that clear boundaries guide the supervision journeys from the onset.

To address this, I turned to the scholarly literature for possible ways of establishing boundaries. While this literature is widely available, much of it centres on contexts where supervisors have uncontested authority over compliant supervisees. A paucity of research considers supervision relationships, like mine, where students have higher social statuses regarding age and employment within the wider society than supervisors. Of the reviewed studies, writings by Benmore (2016) seemed most suited to assist me in identifying ways to better manage my supervisory relationships with Big Shots whom I may supervise in future. Benmore (2016) suggests boundary management, which I identified as a useful framework that could assist me in theoretically defining and explaining the official roles that I, as a postgraduate supervisor, should play at different stages of the supervision journey with Big Shot supervisees. Hence, rather than refusing to supervise or avoid Big Shots altogether, by drawing on the boundary management framework that Benmore (2016) presents, I sought ways to establish clear lines that unambiguously distinguish between the roles of the supervisor and the supervisee within supervisory relationships.

Beyond simply distinguishing between the role of supervisor and supervisee, Benmore (2016) further recognises it needs to be considered how these roles should play out as the supervision transitions through the various stages. In this regard, Benmore (2016) delineates primary and secondary boundaries. According to Benmore (2016), primary boundaries include physical, temporal, emotional, and cognitive boundaries. Given this, I realised that the institution where I supervise postgraduate studies has done well in establishing primary boundaries. Within primary boundaries reside the physical aspects; this includes the various administrative stages I alluded to earlier. As mentioned, these processes involve the supervision agreement signing stage, the proposal writing stage, the proposal defence phase, the ethical clearance application stage; the stage for submitting a formal intention to subject the thesis to examination; the post-examination thesis correction stage follows; and the stage where the final version of the thesis is submitted to the university's respective research office for the postgraduate qualification to be conferred.

I also recognised that temporal and cognitive aspects of the supervision journey residing within primary boundaries are addressed through the institution where I supervise postgraduate research by the institutional management, creating opportunities for seminars, workshops, and such that help students to grow cognitively in their academic knowledge within their specialised areas of learning (Pelser 2024). However, from reflections on my supervisory experiences, I also recognised those secondary (relational) boundaries, which, according to Benmore (2016), are relational parameters, seem largely undermined. By their name, relations boundaries focus on the actual relations (i.e. social interactions) within the supervision journey.

Through analysing my supervisory role reflections, I recognised a critical need for these relational boundaries to be formally established at the broader institutional level and not just grappled within the private confines of the consultation spaces within my supervision arena office. As described earlier, my experiences of reverse among Big Shot, for example, have demonstrated how failing to address secondary (relational) boundaries efficiently can negatively impact the primary (physical, temporal, emotional, and cognitive) boundaries directly and the well-being (especially mental health) of the supervisor as a whole.

To address secondary (relational) boundaries for guiding social interaction within supervisory relationships, Pearson and Brew (2002) advise focusing on the relational supervision process rather than exclusively on the roles. Additionally, Taylor (1995) suggests that supervision should be seen as a mentorship rather than an instruction, which can be done through what Knowles (1999) describes as critical conversations. Hence, within secondary boundaries, there is a need for broader opportunities for critical conversation on the emotional geographies of the postgraduate journey for both students and supervisors. Secondary boundary setting thus realises the need for relational limitations within the research supervision arena. However, in contrast to how rules relating to primary boundaries are set, secondary boundary rule setting calls for a cohesive engagement of all role players to play an active part in co-creating relational rules by which supervisory relationships will be guided.

Furthermore, because relational boundaries relate to managing social interaction, they are not static or a one-size-fits-all approach to creating safe relational spaces. Within a broader institutional framework and a supervisor's unique supervision arena, opportunities must be made available for these (relational) boundaries in place to manage social interaction to be ongoingly constructed (and sometimes deconstructed and reconstructed). Restorative

practices within the parameters of secondary boundary setting can play a fundamental role in facilitating this process (Howard 2022).

Big Shots, Trojan Horses, and ‘The Real Dirty Words’ of Supervision: A Reflexive Conclusion

This chapter has engaged critically with detailed autoethnographic reflections on supervisory experiences among a specific category of men and women: postgraduate supervisees who simultaneously occupy esteemed positions in their workspaces. In the chapter, I began my deliberations by emphatically declaring that the label (Big Shots) employed in this chapter to identify this category of supervisees was not implied with pejorative intentions. A later distinction of a sub-category of Big Shots was introduced, which I likened to Trojan Horses. Hence, this metaphor was applied to distinguish those identified as Trojan Horses from the collective Big Shot group. On the guidance of labelling theory, I remained cognizant of the pros and cons of labelling individuals. However, despite my declaration not to use the label pejoratively, my application of labels in this chapter could raise suspicions about contradictory subliminal intentions.

My further description of the sub-categories of Big Shots (as being hostile, condescending, arrogant, and power-seeking individuals) may further induce suspicion of an underlying vendetta against particular Big Shot supervisees whom I described in this chapter as Trojan Horses and elders – especially when one reconsiders the documented terms of endearment these so-called elders used to address me. From this premise, I might even be accused of using this chapter as a platform to settle this score with supervisees identified under these sub-categories. My discussions based on reflections involving them could be misconstrued as defamatory stories about adversaries rather than a theorised critical reflection on my own experiences among them. Further yet, the nature of my chosen research approach may be construed as a viable means to tacitly (descriptively, subjectively, and biasedly) execute a subliminal negative retributive agenda against Big Shot Supervisees.

As damning as the labels used in this chapter may be perceived, as unfriendly as the accounts of similar scenarios involving labelled individuals may seem, I reaffirm my deliberate intention in this chapter to sustain my focus on the phenomenon and not directly on the individualities of the supervisees alluded to in this chapter. Instead, while mindfully protecting the personal identities of the Big Shots alluded to in this chapter, I have laid myself bare

rather than pretending that I am not an active role player in a supervision phenomenon I encounter daily. Against the personal risks and potential backlashes involved with so doing, I have chosen to humanise myself in the supervisory arena and this chapter's deliberations. This approach has enabled me to underscore that within an institutional space that tends to androgenise supervisors, postgraduate supervisors are humans and, as such, are also emotionally laden beings. Thus, in some ways, they are Trojan Horses, too.

As Trojan Horses, humans also invisibly carry feelings and thoughts within the heart and mind, and there is no way for others to tell their natures of the invisible cargo within until embedded thoughts and feelings are outwardly expressed through our (inter)actions. As Trojan Horses, humans may be different Trojan Horses; emotional baggage may differ and may be discharged in different ways. As individuals, not all power-invested humans are inclined to abuse personal and positional power in oppressive ways; not all are inclined to counter arrogance with arrogance; not all have fraudulent and murderous tendencies. Likewise, as a Big Shot in my own right and a Trojan Horse too with an emotional load that does not carry destructive agendas, and more importantly, as a human with my individuality, this chapter has allowed me to express what has been suppressed inside me: my desire to be rehumanised within the institutional space and to be seen and heard, not just as a Trojan Horse bearing a load of intellectual knowledge into the supervision arena - but as a human being with who is part of a wider social setting, and all the tensions, vulnerabilities, and risks that come with it.

Indeed, as an author, this chapter has allowed me to draw attention to my humanness. As a postgraduate supervisor, I have found a space in this chapter to highlight my gendered and self-identity fluidities, vulnerabilities, and the hidden costs of embodying specific (gendered, social, and institutional) identities. This chapter has allowed me, within my humanness, to expose the daily stress I face of navigating and (re)negotiating my identities within spaces that tend to homogenise research supervisors and negate the emotional burdens that some face, especially burdens inflicted by students. It has enabled me to expose my stresses in the broader scope of academic scholarship in which there is a tendency to expand research that homogenises and villainises supervisors while portraying students as vulnerable to supervisor villainy. Within this scholarly space, exposing my humanness has also drawn attention to how research hides gender-based violence against women by women; it tends to expand and promote findings on men as perpetrators of gender-based violence and equally tends to ignore (or not to hold accountable) women who use age-rankings, and

positional power, and abuse cultural norms, particularly, to justify their oppression and abuse against other women (and in some cases against men too).

In closing, taking all of the above into account, this chapter has revealed that the real ‘dirty words’ of supervisory relationships are not Big Shot, or Trojan Horse (as it may have been misconstrued in this chapter), nor is ‘supervisor’ the dirty word of supervision; nor is ‘power’ (as discussed in the introduction of this chapter) the ‘dirty word’ of supervisory relationships. Instead, this chapter has exposed misogyny, patriarchy, infantilism, sexism, and reverse ageism as the real ‘dirty words of supervision’. This chapter has discussed how misogyny, patriarchy, infantilism, sexism, and reverse ageism permeate supervision structures. Moreover, this chapter has highlighted how they are transported into supervision spaces but has specified that they are not transported into such spaces through Big Shots, Trojan Horses, and even supervisors, per se, but specifically through ill-meaning and corrupt, student and academic Trojan Horses alike, whose presences propose damaging consequences for adversaries, which may even cost adversaries their lives.

This exposure of the ‘real dirty words of supervision’ illuminates a critical mandate for institutional leaders to establish supervision spaces that are not focused exclusively on growing research output figures and graduation numbers by feeding only the physical, temporal and cognitive dimensions of institutional existence. Instead, it calls on leaders to pay homage to the critical role that emotional intelligence plays in an institution’s survival.

In conclusion, the ultimate survival of institutions resides in nurturing the invisible emotional dimension of institutional existence through restorative practices. Through this chapter, the critical call for restorative practices within a social justice framework has thus been sounded.

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Chapter 17: Enhancing Questionnaire Quality in Research: Challenges, Principles, and the Acid Test

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Abstract

One of the standard procedures when conducting research is to use a questionnaire or interview to obtain data in answering the research questions. The challenge identified is that many students do not use a proper method or do not know how to compile a questionnaire and most of the time it is a heuristic method (rule of thumb). Many supervisors do not bother to ascertain if the questionnaire is acceptable. The challenge could be that the researcher discovers at the end that the research questions are not answered or that the discussion does not reflect what needs to be done. In this article, we propose a matrix that could help to solve this challenge if appropriately followed.

Keywords: Data, Proper Method, Questionnaire, Research Method, Researcher, Supervisor

Introduction and Background

Academic research enhances humanity's progress and is driven by humanity's curiosity. Humans get curious, ask questions, and focus on discovering everything to know. Without curiosity and research, humanity's progress would stall,

and the world would be completely different place. Sheridan (2024) defines academic research as an investigation into what is known about a specific topic. It requires examining and analysing academic and other sources. Gumasta (2022) adds that academic research is conducted to increase the understanding of fundamental principles in core interest areas. The main objective of academic research is thus the creation of knowledge.

Academic research can broadly be divided into qualitative and quantitative research. Tenny *et al.* (2022) describe qualitative research as a type of research that provides insights into real-world problems. Qualitative research gathers participants' experiences, perceptions, and behaviour. It could be structured as a standalone study, relying on qualitative data, or part of mixed-methods research that combines qualitative and quantitative data. Quantitative research is more positivistic and gathers numeric data (Coghlan *et al.* 2014). The collection of quantitative information allows researchers to conduct statistical analyses that aggregate the data, indicate relationships among the data or compare across aggregated data.

Academic research, irrespective of whether it is qualitative or quantitative, can be divided into primary and secondary research (Bouchrika 2024). Streefkerk (2023) describes primary research as obtaining information that provides direct evidence about the people, events, or phenomena that are being researched. Primary sources can be qualitative or quantitative data collected through interviews, surveys, experiments or sources produced by people directly involved in the topic.

In addition, Streefkerk (2023) describes secondary research as information that describes, interprets, evaluates, or analyses information from primary sources. Examples of secondary research include, amongst others, books and articles that synthesise information on a topic. Secondary research is widely used in many fields of study and industries, such as legal and market research. For instance, a systematic review is one of the most common secondary research methods. In a systematic review, scientists systematically review existing literature and studies on a specific topic, appraising available studies to synthesise their findings (Bouchrika 2024).

This chapter investigates the usage of questionnaires to obtain information as part of primary research, as there are challenges when using this instrument in academic research. The questionnaire method is a versatile and powerful tool for data collection across diverse research domains. Its structured format facilitates standardised data collection, organisation, and analysis, which is particularly advantageous for quantitative research. This method offers

researchers cost-effectiveness, accessibility, and the ability to reach a broad and diverse population, enabling the efficient gathering of comprehensive insights.

Low response rates, potential bias due to non-response, and difficulties ensuring respondent representatives could be challenges when using questionnaires. Despite these possible challenges, the questionnaire method could be valuable, providing a structured approach to gathering insights and contributing to knowledge advancement in various fields (Kupanga 2024). A questionnaire can assist in answering the research questions or prove the hypothesis.

Questionnaires are indispensable tools for collecting data across diverse research domains. Their systematic structure enables researchers to gather information on attitudes, beliefs, behaviors, and characteristics from a significant number of respondents, facilitating both quantitative and qualitative analyses (Bryman 2016). However, the efficacy of a questionnaire hinges on its design and implementation, which are often fraught with challenges.

This paper therefore synthesizes a systematic review of the literature, elucidating the key obstacles encountered in questionnaire development and proposing fundamental principles for crafting robust and effective research instruments. Furthermore, it integrates Remenyi's (2005) 'acid test' as a crucial evaluation framework for research questions underpinning questionnaire design.

Research Methodology

The research methodology employed in this chapter is a systematic review of the literature to identify the challenges faced when compiling questionnaires in research. The systematic review methodology was chosen as it is explicit, precise, and evidence based.

According to Manchester Metropolitan University (2024), it aims to minimise bias and thus enhance the reliability of any conclusions. In addition, health professionals, policymakers, and other researchers widely use systematic reviews.

The steps of a systematic review methodology is to 1. Formulate the research question asked to the literature; 2. Formulate including and excluding criteria for article searches; 3. Identify search engines and databases used, as well as the 4. The method by which the selected articles will be analysed and 5. How the data will be presented.

Systematic Review

Creating and using questionnaires in research presents specific challenges. This section performs a systematic review of questionnaires in research across different scholarly fields. It describes why questionnaires are relevant to data collection and their design is crucial to collecting the data needed to answer the research question.

Challenges in the Design and Implementation of Questionnaires

The Foundational Role of Questionnaires in Research

Well-designed questionnaires are pivotal for obtaining pertinent data that directly addresses research questions. They allow for standardized data collection, enabling comparisons across respondents and facilitating statistical analysis. The insights gleaned from carefully constructed questionnaires can be instrumental in answering complex research inquiries and informing evidence-based conclusions across various fields of study.

Despite their widespread use, numerous challenges can undermine the effectiveness of questionnaires. These challenges can introduce bias, reduce response rates, and ultimately compromise the validity and reliability of research findings. Table 1 consolidates these challenges as identified in the reviewed literature.

The following table details the research challenges.

Table 1: Research challenges

Author(s)	Main challenges
David (2024)	• Limited response options in a questionnaire can deter a respondent from providing correct data simply because the response options do not include it. • A low response rate may lead to inaccurate results, as the data may not accurately reflect the opinions and experiences of the intended target audience. • Survey fatigue: Respondents may be overwhelmed with too many questions. • Use of complicated language may result in some questions being unclear.

Collins <i>et al.</i> 2018)	• Respondents' willingness to participate only when its aims are clear, it is easy to complete and when it is perceived to be of ultimate benefit to respondents. • Questions are phrased in a manner that is not straightforward to understand. • Positive and correct language using euphemistic terms can confuse the respondents. • Reluctance to ask direct questions to avoid offending respondents.
Cunha <i>et al.</i> 2021)	• It takes time, consumes researcher effort, and depends on the respondents' voluntary collaboration. • Managing the balance of research goals and the need not to pursue too many and too detailed research objectives. • Questions are formatted so that the information appears too dense. • The questionnaire structure does not allow an almost automatic answer and thus does not allow the respondent to think about anything other than the item itself.
Linderman (2023)	• The potential inability to capture detailed and nuanced insights from participants. • Errors in how participants interpret and respond to questionnaire items, leading to biased results. • The downside of low response rates is the potential for non-response bias and the potential impact on the representativeness and generalisability of the collected data. • Misinterpretation can occur due to unclear wording, ambiguous phrasing, or the use of technical jargon that is unfamiliar to participants.
Geskus (2023)	• Without a sound knowledge of research methodologies and statistics, it can be difficult to create a reliable and valid questionnaire. • The questions are not relevant to the purpose of the study.

	• Open-ended questions can provide valuable insights but are more challenging to analyse than closed-ended ones. • Questionnaires that are too long may cause the respondents to end the survey early and not answer the questions thoroughly.

Principles for Enhancing Questionnaire Design

Given the challenges outlined, the literature suggests several key principles to enhance the quality and effectiveness of questionnaires.

Formulating Clear and Effective Questions

The bedrock of a good questionnaire lies in the clarity and precision of its questions. The American Society of Nephrology (2020) emphasizes the need for informative introductory statements that clearly articulate what is expected of respondents. Researchers must carefully consider whether to employ open-ended or closed-ended questions (Neuman 2014; Bryman 2016).

The American Society of Nephrology (2020) also states that all questions must be formulated with an informative introductory statement. It should be clear what is expected from respondents and to be able to reply. Having decided that a questionnaire is the most suitable method for gathering data, researchers must decide what and how to formulate questions. To formulate the questions, researchers face several decisions, including whether the questions will be open- or closed-ended.

Open-ended questions enable respondents to express themselves freely and provide any answer, whereas closed-ended questions limit respondents to choosing from the given responses. (Neuman 2014). Rephrased, open-ended questions elicit unstructured responses and closed-ended questions elicit structured responses. The choice between open- and closed-ended questions depends on the general research problem, the type of data researchers seek, and where the researcher wants to place the onus of interpretation (Bryman 2016).

Open-ended questions allow for free-form responses, providing rich, nuanced data suitable for exploratory research and brainstorming. However, they place the onus of interpretation on the researcher and can be challenging to analyze systematically.

Closed-ended questions offer predefined response options, facilitating quantitative analysis and comparison. However, they limit the scope of responses and require careful consideration of the comprehensiveness and mutual exclusivity of the options. Flawed response categories, such as overlapping income brackets (Brace 2018), can compromise data accuracy.

Examples of these include: A trade magazine might pose the following question to professionals from companies: ‘What is the worst information-systems-industry job that you can imagine?’ This is an open-ended question, and respondents can give any answer. The respondent is given flexibility and range in responding. This is good for problem identification and brainstorming (Neuman 2014). Since the onus of interpretation falls on the researcher, open-ended questions are unsuitable for all situations. For example, elections with open-ended questions on the ballot would most likely open-up more room for political squabbling about the correct interpretation of the results.

In contrast, if the magazine survey were to ask: ‘Within the information systems industry, do you feel the programmer’s occupation is?

- a) the best occupation;
- b) a good occupation;
- c) an acceptable occupation;
- d) a bad occupation; or
- e) the worst occupation?

This question is closed-ended and respondents have limited choices. Furthermore, they are responsible for interpreting each answer and must decide what each answer means.

Ensuring Clarity in Language and Avoiding Bias

Norstat (2022) states that clear and comprehensible language should be used in questionnaires, which could ease the respondents’ cognitive burden. Questionnaires should be based on the vocabulary and grammar of the target population being surveyed, and ambiguity, confusion, and vagueness must be avoided. Neuman (2014) noted that the terminology used must be known within the field of research. Subject jargon or unfamiliar terminology to the respondents and unnecessary abbreviations must not be used. In addition, Neuman (2017) states that it is necessary to clarify what the researcher is asking and how it should be answered. For example, if the researcher asks, ‘What is your

income?’ the respondent does not know whether it means weekly, monthly or annual, pre-tax or after-tax, household or individual, this year or last year, etc. The researcher should also avoid using indefinite words or response categories. For example, ‘Do you jog regularly?’ The respondent might not know what the word ‘regularly’ means. Questions must be clear and straight to the point, eliminating confusion, doubt or ambiguity (DeFranzo 2012).

The language used in questionnaires must be clear, comprehensible, and tailored to the target population’s vocabulary and grammar (Norstat 2022). Ambiguity, vagueness, technical jargon, and unnecessary abbreviations should be avoided (Neuman 2014; DeFranzo 2012). Questions should be direct and unambiguous, specifying the frame of reference (e.g., time, unit of measurement) to prevent misinterpretation.

Furthermore, researchers must be vigilant in avoiding biased language. This includes:

- ◆ Emotional language and loaded words: These can evoke strong emotional responses and skew answers (Neuman 2014).
- ◆ Prestige bias: Questions that suggest a ‘right’ answer based on social desirability or association with respected figures can lead respondents to provide inaccurate responses (Neuman 2014).
- ◆ Leading questions: These subtly guide respondents towards a particular answer (Neuman 2014).

Emotional Language, Prestige Bias and Leading Questions

Neuman (2014) also noted that loaded words with a history of being attached to extreme situations should not be used. For example, avoid questions like ‘What should be done about murderous terrorists who threaten the freedom of good citizens and the safety of children?’ Watch for prestige markers that cue the respondent to give the ‘right’ answer. For example, ‘Do you support the president’s policy on Zimbobutu?’ provokes ‘yes’ answers from people who have never even heard of Zimbobutu (and, in fact, we made the name up -- yet many people will say ‘yes’ to this question).

Avoid leading questions like ‘I assume you would agree that the teachers do a heroic job for our children.’ Avoid loading questions with extra adjectives and adverbs, like ‘Should the mayor spend even more tax money trying to keep the streets in top shape?’ (Neuman 2014).

Avoiding Complex Question Structures

Questions should be formulated that they are not beyond a respondent's capabilities. In addition, questions should not probe the respondents about future intentions. Questions should only be about one topic (Brace 2018). For example, do not ask, 'Does your company have pension and health insurance benefits?' because if their company has only one of those benefits, it is unclear whether the respondent will say 'yes' or 'no'.

Suppose you want to test the idea that students give better evaluations to teachers who tell many jokes in class. The wrong way to investigate this is to ask, 'Do you rate a teacher higher if the teacher tells many jokes?' because this assumes that the student is entirely conscious of everything they do and why. Instead, ask the student two separate questions.

Several structural elements can impede respondent understanding and the accuracy of their answers:

- ◆ Double-barrelled questions: These combine two distinct issues into a single question, making it impossible for respondents to answer accurately if their views differ on the two parts (Brace 2018).
- ◆ Questions with negatives and double negatives: These are cognitively challenging to process and can lead to confusion and unreliable data (DeFranzo 2012; Brace 2018).
- ◆ Hypothetical questions and questions about future intentions or past recall of minor details: These often yield unreliable responses as they do not reflect actual behavior or are beyond respondents' cognitive capabilities (Brace 2018).

People have cognitive limitations, especially regarding the memory of past events. Asking, 'How did you feel about your brother when you were six?' is useless. It is pointless to ask people about things that are not natural ways for them to think. For example, do not ask, 'How many litres of petrol did you buy for your car last year?' The same is true when asking, 'What is the most important thing one should do to stop the economy from deteriorating further?' This assumes that the economy is deteriorating. It would be better to rephrase. Hypothetical questions like 'If a new grocery store were to open down the street, would you shop there?' are unrelated to actual future behaviour.

Questions with Negatives and Double Negatives

Negatives like ‘Students should not be required to take a comprehensive exam to graduate’ are difficult for respondents to process, especially if they agree with the predicate because they disagree with *not* doing something, which is confusing (DeFranzo 2012). Using double negatives like ‘It is not a good idea not to turn in homework on time’ yields unreliable data because people are unsure about whether to put a ‘yes’ or ‘no’ even if it is evident in their minds whether turning in homework on time is a good idea (Brace 2018).

Strategic Question Placement

The order in which questions are presented can also influence responses (Bryman 2016). Sensitive, embarrassing, or threatening questions should be placed towards the end of the questionnaire, after rapport has been established. First, it makes them more likely to answer, and second, if they get upset and leave, at least the researcher has covered most of the questions (Bryman 2016). Related questions should be grouped together to maintain flow and avoid appearing disorganized. Researchers must be mindful of questions that might inadvertently influence responses to subsequent questions.

For example:

- ◆ Do you think the US should let European newspaper reporters come and send back the news as they see it?
- ◆ Do you think a European country should let American newspaper reporters come in and send back the news as they see it?

Managing ‘Don’t Know’ Responses

Filtering ‘Don’t Know’

Fink (2013) outlines three approaches to handling ‘don’t know’ responses:

- ◆ **Standard format:** The ‘don’t know’ option is not explicitly offered but recorded if volunteered.
- ◆ **Quasi-filter:** ‘Don’t know’ is included as a response option.
- ◆ **Full filter:** Respondents are first asked if they have an opinion before the substantive question is posed.

The first is the standard format. The ‘don’t know’ option is presented to the respondent but is recorded if the respondent volunteers to it. The second is the quasi-filter. A ‘don’t know’ option is included among the possible responses. And lastly, the full filter.

Standard format. The respondents are asked if they have an opinion. Then, if yes, ask the question (Fink 2013). Example:

Here are some questions about other countries. Do you agree or disagree with each statement?

The European leaders are trying to get along with America.

Quasi-filter. Here is a statement about another country.

The European leaders are trying to get along with America. Do you agree, disagree, or have no opinion on that?

Full filter. Here is a statement about another country. Not everyone has an opinion on this. If you do not have an opinion, just say so. Here is the statement:

The European leaders are trying to get along with America.

Do you have an opinion on that? [If ‘YES’] Do you agree or disagree?

The choice of approach depends on the research objectives and the sensitivity of the topic.

Utilizing Appropriate Question Formats

Beyond open- and closed-ended questions, various formats can be employed:

- **Rating scales:** These allow respondents to indicate the strength of their agreement or evaluation on a continuum (Fink 2013). The number of scale points can impact data reliability and respondent burden (Brace 2018).
- **Direct magnitude scaling:** This technique allows for ratio-scaled data by asking respondents to provide numerical ratings relative to an anchor point (DeFranzo 2012).

- **Rank-ordering:** Useful for comparing a small number of items, this method asks respondents to order items based on a specific attribute (Bryman 2016).
- **Paired comparisons:** Respondents choose between two items at a time based on a given attribute (Roopa & Rani 2012).
- **Matrix questions:** These present multiple questions with the same response categories in a grid format, potentially increasing efficiency and comparability (Bryman 2016). However, care must be taken to include necessary response options like ‘Don’t Know’ or ‘Neutral.’
- **Contingency questions:** These are multi-part questions where the subsequent questions depend on the response to the initial question, ensuring that only relevant questions are answered (Brace 2018).
- **Scaled responses (e.g., Likert scales):** These measure attitudes or opinions using a series of statements with ordered response options (Fink 2013; Brace 2018).

An open-ended question is one in which the researcher does not provide any standard answers, as already discussed above and below. Here are some more examples:

1. How old are you? _____ years.
2. What do you like best about your current employment?

A closed-ended question is a question in which the researcher provides the response categories, and the respondent chooses one:

1. How old are you?
 - (a) 12 - 15 years old
 - (b) 16 - 25 years old
 - (c) 26 - 35 years old
 - (d) 36 - 45 years old
 - (e) Senior citizen

2. What do you like best about your current employment?
- (a) The people.
 - (b) The diversity of skills you need to do it.
 - (c) The pay and/or benefits.
 - (d) Other: _____ (write down)

A close-ended question is a question in which the researcher provides standard answers to choose from. For example:

This question:

3. What is your annual household income?
- (a) Less than R10 000
 - (b) R10 000 to R25 000
 - (c) R25 000 to R35 000
 - (d) R35 000 to R50 000
 - (e) R50 000 to R75 000
 - (f) More than R75 000

This question is however flawed because of the overlapping answers, namely: If a person's income is exactly R25 000, which category do they use? Brace (2018) lists the advantages and disadvantages of different types of questions that can be asked.

The following table provides several advantages and disadvantages of using open-ended and closed-ended questions in research questionnaires.

Table 2: Advantages and disadvantages of using closed-ended and open-ended questions

	Advantages	Disadvantages
Closed-ended	• Easy and quick to answer • Responses easy to compare • Response choices make questions clearer • Easy to replicate the study	• May lead the respondents’ answers • Respondents with no opinion are forced to answer • Respondents can feel constrained and or frustrated • Too many choices can be confusing for the respondent • Fine distinctions may be lost • Mistakes can occur easily • May force respondents into simple responses
Open-ended	• Permit an unlimited number of answers • Respondents can qualify and clarify responses • Can find the unanticipated • Reveals respondents’ thinking processes	• Respondents may provide answers at different levels of detail • Answers can be irrelevant • Inarticulate respondents are at a disadvantage • Coding is tedious • Requires time and effort • Intimidates respondents • When a respondent omits a response, we cannot tell whether the omission is because of belief or just forgetfulness

Source: Brace (2018)

Rating Format Questions

In this format, researchers require respondents to rate their answers (Fink 2013). For example:

Children must be allowed to make their own mistakes.

- 1) Disagree strongly
- 2) Disagree somewhat
- 3) Neither agree nor disagree
- 4) Agree somewhat
- 5) Strongly agree

The result of a rating question is an ordinal-level variable, which is treated as an interval in data analysis.

Odd or Even Number of Steps in the Response Scale

A researcher may use an odd number of steps to allow the respondent to express a middling or neutral strength of opinion (Fink 2013). This could be problematic with respondents who provide the middle category for all questions. However, the alternative can be even worse: respondents with no or neutral opinions are forced to choose negative or positive and do it randomly.

Steps in the Response Scale

The statistical reliability of the data increases sharply with the number of scales up to about seven steps, then it increases more slowly, leveling off around 11. After 20 steps, it decreases sharply (Brace 2018). However, the more steps there are, the more difficult it is for the respondent and possibly the less valid the responses.

Suppose variables are combined additively, such as when the researcher creates a scale or index. In that case, the number of steps is not problematic in terms of the reliability of the answers.

Direct Magnitude Scaling

Magnitude scaling is a method of obtaining ratio-scaled data from respondents. The reason is to give respondents an anchor point and then ask them to answer the questions relative to that anchor point (DeFranzo 2012).

For example, suppose the researcher is interested in the severity of crimes. Start by assigning a number to one crime. For example, take ‘felony’ and tell the respondent that the severity of a felony is 100 units. Now say: ‘Okay, if the felony is 100 points, how many points is ‘murder’? If you think murder is ten times as bad as a felony, then write down 1000. If it is twice as bad as a felony, write down 200. Then you ask about every other crime.

Rank-Ordering

Rank ordering is an efficient method with a small number of objects, such as 10 (Bryman 2016). For example, instead of rating how serious each set of organisational problems is, the researcher could ask the respondent to sort them in order of most to least severe.

Paired Comparisons

In this method, the researcher presents items two at a time and asks the respondent to choose which has the same attributes (Roopa & Rani 2012).

Principles for Questions

Neuman (2014) argue that writing is more of an art than a science. It takes skill, practice, and creativity. The following are considered principles for survey research.

The questions asked should be relevant to the research problem (Neuman 2014):

1. Questionnaires should be as short as possible.
2. Avoid ambiguity, confusion, and vagueness.
3. Avoid prestige bias.
4. This way of stating a professional’s position might easily sway people who want to align with the ACM organisation.
5. Avoid double-barrelled questions.
6. Avoid leading questions.
7. Avoid asking questions that are beyond the respondents’ capabilities.

Contingency Questions

Certain questions in questionnaires will be relevant to some respondents and irrelevant to others. Researchers should avoid asking irrelevant questions. This will reduce respondents' frustration and increase the quality of information in their responses (Brace 2018). A contingency question is a two-part (or more) question. Properly using contingency questions can facilitate the respondents' completion of the questionnaire.

There are several formats for contingency questions. The following is probably a frequently applied format:

1. Have you ever used computer-aided instruction software?
[] No (Go to question 2)
2. [] Yes]

If yes, how many hours per week?

- [] Less than one
- [] one
- [] 2 to 5 hours
- [] 6 to 10 hours
- [] 11 to 20 hours
- [] more than 20 hours

Scaled Responses

There are various scaled response designs, so the researcher needs to consider the design options (Brace 2018). One of the standard scaled-response formats is the Likert scale. It is typically a five-point scale, shown in the following format:

We should strongly support copyright protection for source and object code.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

Another type of scale, a rating scale, asks respondents to rate some item or quality on a specific scale (Fink 2013). For example, a user magazine might ask readers to describe each of the desktop and laptop or notebook PCs that they used in the past two years, telling the manufacturer and chip type of each and

ask each respondent to use the following scale, ranging from 1 (worst) to 10 (best) to rate each on:

Overall Reliability	1	2	3	4	5	6	7	8	9	10
Satisfaction with repair experience	1	2	3	4	5	6	7	8	9	10

An alternate way to represent a five-point Likert scale is **Strongly Agree** _ _ _ _ _ **Strongly Disagree**. If you use words instead of dashes to indicate stages on the Likert Scale continuum, do not include ‘Uncertain’ or any other neutral term as a response option. Do not provide respondents with a fence to sit on. Use trend-line graphs or scatterplots rather than bar charts or pie charts to represent continuous data results visually. Use the ‘I do not want to answer this question’ response option only when surveying respondents about susceptible topics like *criminality*, *sexual preferences* or forms of socially deviant behaviour. Limit **Yes** – **No** response options, because they have limited usefulness in statistical analysis. One, for instance, cannot correlate the absence of something (No responses) with anything else and can only compare them with **Yes** responses. Use pie charts or bar graphs to represent **Yes** – **No** results.

Matrix Questions

Researchers often want to ask several questions with the same set of answer categories (Bryman 2016). It is possible to construct a matrix of items and answers, as explained below.

Table 2: Example of a Matrix questionnaire

Statement	Disagree Strongly	Disagree Some-what	Agree Some-what	Agree Strongly
Changing current methods should be considered carefully to realise all ramifications before trying something new.				

Having diverse experience at several companies is preferable to having in-depth expertise at one company.				
It is usually worth the risk to try a technological innovation if it has the potential to give you a competitive advantage over proven technology.				

A potential problem with this specific question matrix is the lack of a ‘Don’t Know,’ ‘Neutral,’ or ‘Undecided’ response category. This is an easy addition. The matrix format has several advantages. Respondents will probably find it faster to complete a set of questions presented in this fashion, and this format may increase the comparability of responses (Bryman 2016).

Response Biases

The Halo Effect

Researchers need to be careful about questionnaire response bias. Studies, as far back as 1920, have revealed a response bias called the Halo effect that can occur with rating scales (Thorndike 1920). Respondents rate people whom they like or respect high on all scales, regardless of the person’s actual performance.

The Pitchfork Effect

Researchers in computer science need to be careful about response bias in a negative direction caused by the ‘pitchfork’ effect (Eddy 2023). People will pick up subtle cues when evaluating things, especially products, and respond more negatively than they might. To guard against the pitchfork effect, ensure that a questionnaire does not direct towards negative responses.

When constructing your research plan, prospectus, and Chapter 1 of the dissertation or thesis, one of the most important factors to consider is the

alignment between your problem statement, purpose statement, and research questions. While this may seem like something insignificant and easy to remember, this is often the very thing that holds dissertation students back when trying to progress to the next level. Many chairs will focus specifically on supervising to create your study. If one little thing does not align between the above-mentioned components, they will not hesitate to send you back to the drawing board.

To quote Al Pacino from *The Godfather Part III*, ‘Just when I thought I was out, they pull me back in’ (Statistical Solutions). They argue that just as a general tip, it helps to map out these components before committing them to the page. One of the best ways to do this is to write out each one on a separate notecard: one for problem, one for purpose, and one for research questions. Line them up, side by side, and ask yourself, ‘Is this a natural progression from one to the next?’ If the problem and research questions make sense, but the purpose is shaky, you will know that the purpose is the spot to focus your edits. This can occur in any combination.

Then, narrow the topic by asking open-ended ‘how’ and ‘why’ questions. For example, a researcher may want to consider the factors contributing to childhood obesity or the success rate of intervention programs. Create a list of potential questions for consideration and choose one that interests you and provides an opportunity for exploration.

- **Too simple:** How are school systems addressing childhood obesity?
This information can be obtained without the need to collect unique data. The question could be answered with a simple online search, but it does not provide an opportunity for analysis.
- **More subjective:** What is the relationship between physical activity levels and childhood obesity?
This is a more subjective question that may lead to the formation of an argument based on the results and analysis of the data.
- **More focused:** How does childhood obesity correlate with academic performance in elementary school children?
This question focuses on which data can be collected, analysed, and discussed (Brace 2018).

Using an Alignment Matrix to visualise all items in a row. Remember that the lack of something is not a problem. It is what is happening because of that lack; that is the problem (Fink 2013). Data Collection Instrument or Method (What instruments or artefacts will be used to answer each RQ? Give the name of the survey and interview instrument or describe the documents.) The item on that Instrument (What specific question on the instrument in the column to the left will be used to answer each RQ? You do not have to write the questions down, just identify them by number. For example, ‘Survey Question 3 and 9’ or ‘Interview Question 2’.

The Acid Test for Research Questions

Before embarking on questionnaire design, it is crucial to evaluate the underlying research questions. Remenyi (2005) proposes an ‘acid test’ comprising six key questions to determine the suitability of a research question:

1. **How would you describe the topic you are interested in researching?** This probes the clarity and focus of the research area.
2. **What is your main research question?** This assesses whether a clear and concise central question has been formulated.
3. **List any subsidiary research questions.** This examines the logical breakdown of the main question into smaller, manageable components.
4. **What resources will you need to answer your research question?** This evaluates the feasibility of the research in terms of required materials and information.
5. **Who will you need to have access to be able to answer your research question?** This considers the accessibility of the target population or relevant individuals.
6. **How will answering your research question enhance your career prospects?** While seemingly pragmatic, this question encourages researchers to consider the significance and potential impact of their work.

Remenyi's (2005) acid test provides a critical evaluation framework for researchers to assess the viability and focus of their research questions before proceeding with data collection and analysis, including questionnaire design. The test comprises six key questions designed to ensure the research is well-defined, feasible, and impactful. The first question asks the researcher to **describe their topic of interest**, prompting them to articulate the core area of investigation with clarity. The second step requires stating the **main research question**, emphasizing the need for a central, focused inquiry that the research aims to answer. The third step involves listing any **subsidiary research questions**, which should logically stem from and support the main question, breaking down the broader inquiry into more manageable components.

The subsequent three steps of the acid test focus on the practical aspects and significance of the research. The fourth question asks about the **resources needed** to answer the research question, forcing the researcher to consider the feasibility of their study in terms of required materials, data, and tools. The fifth step inquires about **who the researcher needs access to**, highlighting the importance of identifying and ensuring access to the target population or relevant individuals for data collection. Finally, the sixth question asks **how answering the research question will enhance the researcher's career prospects**, encouraging a reflection on the potential impact and value of the research beyond academic contribution, considering its relevance to professional development and future opportunities. Successfully addressing all six components of Remenyi's acid test offers a strong indication that the research questions are robust and the research endeavor is likely to be fruitful.

Weintraub (2017) argued that creating questions to answer the research questions is the time to design (or use another's) instrument or data to get quantitative or qualitative data needed. However, you must have alignment between the Problem Statement, Purpose Statement, Research Questions, and Instrument Questions or Artefact Items; if not, that is the problem (Weintraub 2017).

The Questionnaire Development Matrix

Klopper and Lubbe (2013) argue that one should read their document in conjunction with Klopper and Lubbe (2012). This document explains how, after one's literature survey, one should develop a questionnaire to conduct a quantitative empirical research survey.

At the end of the literature survey, one must decide whether to implement a quantitative, qualitative, or dual-mode empirical data gathering procedure. If one decides on a quantitative procedure, one must develop a *Questionnaire Development Matrix*, like the one shown below, which decomposes the research questions into questionnaire questions.

Read this Figure below in conjunction with Klopper and Lubbe 2012 (Using Matrix Analysis to Achieve Traction, Coherence, Progression and Closure in Problem-Solution Oriented Research, in Conference Proceedings, 2012 International Conference on Information Resources Management (Conf IRM 2012), Vienna University, Austria. Editors: Roman Brandtweiner & Lech Janczewski. ISBN: 978-0-473-21262-9). The CM article explains how one should conduct a literature survey. This document explains how, subsequent to one's literature survey, one should develop a questionnaire to conduct a quantitative empirical research survey. At the end of your literature survey, you have to decide whether to implement a quantitative or a qualitative or a dual mode empirical data gathering procedure. If you decide on a quantitative procedure, you may have to develop a *Questionnaire Development Matrix*, like the one shown below, which decomposes your research questions into questionnaire questions.

Procedure:

1. Formulate a general research problem.
2. Decompose it into subproblems.
3. Formulate a research question that is properly aligned with each sub-problem.
4. Decompose each research question into a section containing thematically interrelated questionnaire questions.
5. Determine the appropriate quantification scales for each question.
6. Determine the data type of each set of response options.
7. Determine the appropriate data measure for each question.
8. Determine the appropriate statistical test for the specific data types.

This procedure is based on the same alignment principles as the literature survey procedure of Klopper and Lubbe (2012), in ‘The Matrix Method of Literature Review’.

The Matrix Method of Literature Review

Questionnaire Section	Types of Research Question	Question Nr.	Appropriate ways of visually representing data		Nominal Measures: Pie charts and count bar graphs	Ordinal Measures: Bar charts and histograms	Scalar Measures: Bar charts and trend lines
			Survey Question/ Statements	Response Options	Data Type	Appropriate Data Measure	Appropriate Statistical Test & Graphs
Section 1	Demographic Questions	1.1	Please tick your age group in the appropriate block:	21-30, 31-40, 41-50, 51-60, 60+	Discrete	Ordinal	Basic descriptive statistics, single group t test, the z proportions test the X ² test. (Use demographic data to characterise your respondents)
		1.2	What is your gender?	Male - Female	Dichotomous	Nominal	
		1.3	How long have you been working at SANBS?	1-2, 3-4, 5-6, 7-8, 9-10, 10+	Discrete	Ordinal	
		1.4	Was your involvement in Project eMerge from an IT or a Business perspective?	IT - Business	Dichotomous	Nominal	
		1.5	How many Enterprise Resource Planning implementations (such as SAP) have you been involved in including this one?	1, 2, 3, 4, 5+	Discrete	Ordinal	
		1.6	What type of post are you in at work?	Managerial - Non-Managerial	Dichotomous	Nominal	

Section 2					
Project Implementation Questions	2.1	Your functional area of Project eMerge was implemented within the timelines originally stipulated by the project plan.	Strongly Agree -Agree-Disagree-Strongly Disagree ¹	Continuum (= Clinre)	Scalar (Likert Scale)
	2.2	The budget assigned to the project was appropriate.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)
	2.3	Project eMerge had enough people resources assigned to it in your functional area.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)
	2.4	Your functional area received sufficient and timely training.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)
	2.5	There adequate management support and commitment throughout the project i.e. Was the management buy-in to the project suitable.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)
	2.6	Satisfactory accountability was placed on the IT team for their function in the project.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)
	2.7	Satisfactory accountability was placed on the business for their function in the project.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)
	2.8	Project team leaders were sufficiently monitored to ensure that they were fulfilling their functions.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)
	2.9	An appropriate planning measure was implemented for Project eMerge.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)
	2.10	The original business case adhered to for project eMerge.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum	Scalar (Likert Scale)

Any member of the X² family or correlation tests, e.g., Phi coefficient, the contingency coefficient and Cramer's V, the lambda coefficient or the uncertainty coefficient (U) or the Pearson significance test.

(Continuous data reveal attributes of whatever one studies, allow one to determine general trends and establish significant correlations = co-relation trends between two attributes)

							Any member of the X ² family or correlation tests ...	
							Scalar (Likert Scale)	
Section 3	Change Management Questions	3.1	Sufficient change management was performed throughout the phases of Project eMerge.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum		Nominal	Basic descriptive statistics, single group t test, the z proportions test the X ² test.
		3.2	Did you participate in any change management event?	Yes - No ²	Dichotomous		Nominal	
		3.3	Were you part of a change management team?	Yes - No	Dichotomous			
Section 4	Business and IT Strategy Alignment Statements	4.1	Do you know what the SANBS Business	Yes - No	Dichotomous		Ordinal	Any member of the X ² family or correlation tests, e.g., Phi coefficient and Cramer's V, the lambda coefficient and the contingency coefficient (U) or the Pearson significance test.
		4.2	The IT strategy was aligned to the business strategy for the 2011/2012 financial year, i.e. the ERP implementation was appropriate to the SANBS business strategy.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum		Scalar (Likert Scale)	
		4.3	The concurrent restructuring and centralisation process at SANBS had a negative effect on the SAP implementation.	Strongly Agree -Agree-Disagree-Strongly Disagree	Continuum		Scalar (Likert Scale)	
		4.4						(Continuous data reveal attributes of whatever one studies, allow one to determine general trends and establish significant correlations = co-relation trends between two attributes)
		4.5						

Figure 1: Questionnaire Development Matrix: An example (working papers Lubbe and Kloppe)

An alternate way to represent a five-point Likert scale is Strongly Agree_Strongly Disagree. If you use words instead of dashes to indicate stages on the Likert Scale continuum, do not include 'Uncertain' or any other neutral term as a response option. Don't provide your respondents with a fence to sit on. Use trend-line graphs or scatterplots rather than bar charts or pie charts to visually represent continuous data results. Use the 'I do not want to answer this question' response option only when surveying respondents about extremely sensitive topics like criminality, sexual preferences or forms of socially deviant behaviour. Limit Yes – No response options because they have limited usefulness in statistical analysis. One for instance cannot correlate the absence of something (No responses) with anything else, and can only compare them with Yes responses. Use pie charts or bar graphs to represent Yes – No results.

Conclusion

In conclusion, the systematic literature review has illuminated several critical issues in designing and compiling research questionnaires. These issues include the risk of ambiguity in question-wording, the potential for respondent bias, and the challenges of ensuring comprehensiveness. By identifying these common pitfalls, researchers can better navigate the complexities of questionnaire design, leading to more accurate and reliable data collection.

Future studies should continue refining best practices, incorporating insights from a broader range of disciplines to enhance the quality of research instruments. Furthermore, the integration of technological advancements, such as adaptive questioning and interactive survey formats, warrants further investigation for their potential to mitigate some of these Identified challenges and improve respondent engagement. Exploring cross-cultural variations in response styles and developing culturally sensitive questionnaire designs also remains a crucial area for future research.

Additionally, longitudinal studies examining the impact of questionnaire design choices on data quality over time could provide valuable insights. Finally, the development of more sophisticated analytical techniques to account for and potentially correct for inherent biases in survey data represents a significant avenue for future methodological advancements.

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Chapter 18: Feasibility as the Integrating Component: Conceptualizing Critical Creativity for Novel Contributions in Doctoral Research Proposal Design

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Abstract

The doctoral proposal is far more than a descriptive blueprint; it must serve as the foundational demonstration of a student's capacity for Critical Creativity, the integrated skill that elevates an idea into a compelling argument for novel scholarly contribution. This critical approach necessitates the seamless integration of two seemingly opposed mental functions: creative thinking, which generates expansive possibilities and new conceptual pathways, and critical thinking, which rigorously assesses those ideas by identifying methodological, logistical, and philosophical obstacles. To ground this innovative integration, the process starts with establishing a strong conceptual framework. Doctoral candidates must utilize rigorous analytical tools, specifically like the MCC Matrix, to systematically test their research idea's feasibility and theoretical grounding. This demanding scrutiny is vital, ensuring the proposal is not merely an exercise in replication but lands decisively in the strategic 'Drives' quadrant – a clear indicator of genuine, forward-thinking innovation. By applying Critical Creativity throughout the document, the student can effectively address

the deep philosophical underpinnings of their study and prove that the proposed contribution possesses true originality and scope, transforming the proposal into a powerful testament to their intellectual readiness and scholarly authority.

Keywords: Conceptual Framework, Critical Creativity, Doctoral Proposal, Feasibility Testing, Knowledge Synthesis, MCC Matrix, Research Novelty, Scholarly Contribution

Introduction:

The Imperative for Novelty

Drafting a doctoral proposal is universally recognized as the decisive, critical step in the academic journey, particularly within the social and managerial sciences. While the surface requirement is to describe the research design, defend the subject choice, and detail the methodology, the true challenge lies in demonstrating sophisticated scholarly quality. The unfortunate reality is that a significant majority – as high as nine out of every ten proposals – are noted to be at risk of rejection from higher-impact colloquiums because they lack compelling proof of innovation (Jacks & Miller 2015). The final document must, therefore, convince the reader not only that the project is method-logically sound and worthwhile but, crucially, that the student possesses the intellectual capacity and competence to execute it. This essential capability, the mark of a true doctoral scholar, is inextricably linked to the student's mastery of Critical Creativity.

The doctoral proposal is far more than a descriptive blueprint; it must serve as the foundational demonstration of this capacity for Critical Creativity, which is the integrated skill that single-handedly elevates an idea into a forceful argument for novel scholarly contribution. This sophisticated approach necessitates the seamless fusion of two seemingly opposed mental functions. The first is creative thinking, which is expansive, responsible for generating new conceptual pathways, expansive possibilities, and identifying unconventional angles. The second is critical thinking, which is rigorous and reductive, systematically assessing those initial ideas by identifying all potential methodological flaws, logistical impediments, and deep philosophical obstacles. The genuine scholarly work occurs at the intersection of these two processes, where ideas are bravely generated and then ruthlessly tested (Bitzer & Francis 2019).

Conceptualizing the Research: The Critical Creativity Toolkit

The development of a well-structured conceptual framework is not merely an organizational formality; it is the crucible where a nebulous research idea takes on structure and rigor, guiding the entire subsequent investigation (Maxwell 2013). At the doctoral level, this framework serves as the student's primary navigational tool, clearly defining the boundaries of the study, specifying key theoretical relationships, and providing the internal logic that links the problem statement to the proposed methodology.

It is precisely through the demanding effort of building this scaffolding that scholars are compelled to exercise and develop critical and creative thinking simultaneously. By articulating their underlying assumptions and positioning their work precisely within the existing knowledge landscape, the framework forces the student to think beyond descriptive compilation and toward genuine theoretical or practical intervention.

Consequently, the conceptual framework functions explicitly as the Critical Creativity Toolkit. This systematic scaffolding must serve to foster and prove intellectual novelty (Perry 2017) by requiring doctoral candidates to move beyond passive literature aggregation. Rigorous analytical tools, such as the MCC Matrix, become essential components of this toolkit, used to stress-test the research idea's feasibility and theoretical grounding against the current body of knowledge (Roberts & Smith 2021).

By imposing this formal structure, the student ensures that their proposed project is not simply incremental or cumulative – a common reason for proposal rejection – but that it lands decisively in the strategic 'Drives' quadrant. This deliberate application of Critical Creativity ultimately proves that the researcher possesses the necessary competence and scholarly muscle to execute a truly original and impactful study.

Cognitive Tools for Knowledge Synthesis

Doctoral students should actively employ various cognitive tools, such as concept maps, mind maps, and visual metaphors, to fundamentally assist with complex knowledge construction and synthesis. The primary intellectual challenge in research is moving past isolated data points or literature entries and perceiving the intricate relationships between items (Maxwell 2013). When a scholar begins to see their field as a network of interdependent concepts rather

than a simple checklist of sources, the path to genuine scholarly contribution is illuminated. The use of structured software mapping tools is thus instrumental in imparting the high-level critical and analytical skills needed for effective doctoral work. This process of visual structuring ensures that the scholar is constantly grappling with the whole conceptual ecosystem of their study.

This systematic visualization process is essential for driving the integrated thinking required for Critical Creativity (Bitzer & Francis 2019). Creative thinking, often facilitated by these visual tools, will illuminate the potential connecting components being investigated, assisting the scholar in clarifying the development of theoretical and operational relationships (Perry 2017). Concept linking, or mind mapping, therefore becomes an indispensable action for the doctoral student, serving as a dynamic method to clarify and refine their thought process. By externalizing the mental landscape of their study, students are better equipped to challenge assumptions and ensure the conceptual framework is robust, logical, and fully prepared to support the weight of the investigation, thereby strengthening the proposal's claim to originality.

The MCC Matrix: A Test of Feasibility

Nicholls's Matthews Correlation Coefficient (MCC) Matrix is a valuable cognitive working tool that doctoral students should employ to apply the rigor of critical thinking to their proposed research ideas. It functions as a visual, two-dimensional test of both feasibility and strategic fit with the core research project, which is vital for ensuring the required level of originality and contribution (Roberts & Smith 2021). By forcing a research idea to be assigned to one of four quadrants, the matrix provides an immediate assessment of the idea's viability and its potential to elevate the proposal above mere replication or cumulative work, a common pitfall that puts a significant majority of proposals at risk (Jacks & Miller 2015). This exercise directly integrates the creative generation of ideas with the critical evaluation of their scholarly merit.

Proposals can be assigned to the quadrants based on their strategic alignment (Fit with Core Idea) and their intellectual return (Novelty/Feasibility). Proposals in the upper right quadrant are called DRIVES because they demonstrate both a strong fit with the research requirements and high potential for original contribution, thus serving as powerful arguments for the project's worthiness. In contrast, proposals landing in the lower left quadrant are designated as DRAIN, often described as a 'waste of paper and time' due to

their low fit and minimal scholarly potential. Other quadrants include DILUTION, which requires refocusing to improve fit, and GOOD, which suggests a sound but likely incremental project. A strong doctoral proposal, guided by a robust conceptual framework, must be structured and defended to ensure every major component lands decisively in the Drives category.

	High Novelty/ Contribution (Feasibility)	Low Novelty/ Contribution (Feasibility)
High Fit with Core Ideas	Drives	Good
Low Fit with Core Ideas	Dilution	Drain

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Synthesis and Final Focus

The academic literature consistently frames the doctoral proposal as a crucible for intellectual development, moving the candidate beyond compliance toward genuine contribution (Jacks & Miller 2015). A core consensus among scholars is that achieving the requisite ‘sophisticated scholarly quality’ requires a deliberate merging of two cognitive directions: the expansive, possibility-seeking nature of creative thought and the reductive, rigor-demanding nature of critical thought (Bitzer & Francis 2019).

Tools like robust conceptual frameworks (Maxwell 2013) and visual mapping techniques (Perry 2017) are not optional aids but mandatory scaffolding, forcing students to externalize and test the internal logic of their ideas against the vast body of existing knowledge. This structural rigor is the direct mechanism by which the student proves their capacity for original research.

This integrated approach culminates in the demonstrable design for scholarly impact. The purpose of deploying such cognitive discipline—from the initial framing to the use of analytical instruments—is to ensure the resulting project is viable and meaningful, moving past the common pitfalls that threaten proposal feasibility (Jacks & Miller 2015).

By employing the MCC Matrix, the candidate rigorously subjects their project to a two-dimensional test, confirming both its theoretical fit and its potential for high novelty (Roberts & Smith 2021). This strategic focus guarantees that the project is not merely an exercise in accumulating data but a validated path to a defensible and original scholarly contribution, securing the project’s success.

Feasibility as the Integrating Component

The essence of a high-quality proposal is the integration of both critical and creative thinking. Critical thinking is directed towards obstacles. Creative thinking is directed toward possibilities. Therefore, the full conceptualization of the process can be summarized: Creative thinking focuses on generating new possibilities; Critical thinking focuses on evaluating existing ideas and identifying obstacles. The merged process, Critical Creativity, is defined by its attention to both obstacles and possibilities thinking, with feasibility serving as the central mechanism that demands the synergistic application of both. The resulting structure, as conceptualised by Brodin and Frick (2011), can be summarised as follows:

- Critical thinking: Directed to obstacles
- Creative thinking: Directed to possibilities
- Critical creativity: Directed to both obstacles and possibilities thinking
- Feasibility: Acting as the integrating component

This demonstrates that the doctoral student must use their awareness and experience to display the obstacles and possibilities of their ideas and actions as quality in the proposal.

Manifestations of Creativity

The manifestations of Critical Creativity in scholarship, based on Brodin and Frick's (2011) framework, represent the different domains where the synthesis of critical and creative thinking is expressed:

- ◆ **Cognition:** Experiential critical creativity. This is the internal, conceptual manifestation; it is the thought process where new knowledge is constructed, and ideas are first evaluated and synthesized in the mind of the scholar or student. It is the initial, internal feeling or intuition of insight and originality.
- ◆ **Action:** Experimental critical creativity. This is the practical manifestation; it involves testing ideas and putting concepts into practice through research design, methods, data collection, or problem-solving trials. It is the practical, hands-on application and refinement of the novel idea.
- ◆ **Speech:** Enunciated critical creativity. This is the communicative manifestation; it is the ability to articulate the novel ideas and their critical rationale clearly and persuasively through oral presentations, discussions, or defending a proposal. It is the scholarly dialogue and external expression of the creative-critical synthesis.
- ◆ **Recognition:** Eulogised critical creativity. This is the acknowledged manifestation; it refers to the process where a scholar's creative contribution is formally recognized and validated by the academic community, such as through publication, peer review, or successful defense of a thesis/proposal. It signifies the external acceptance of the work's originality and rigor.

The Absolute Mandate: Demanding Novelty and Originality in Research

The single most critical requirement of any successful research proposal—be it for a thesis, dissertation, or grant application—is the explicit demonstration of Novelty and Originality (Bozward 2024). The proposal must clearly articulate the unique intellectual contribution the research will make to its field of study. Fundamentally, research is an act of creation, not merely repetition.

The absence of a unique contribution—if the proposed work is essentially a reiteration of someone else’s idea, a simple rehash of existing research, or lacks a clear intellectual gap that it aims to fill—will lead to outright failure (Kritika 2024). This requirement for novelty is absolute.

Defining the Contribution: The Core Criterion

To guide the development of a project, the student or researcher must be able to classify their work’s contribution. Is it genuinely new knowledge, or is it merely reinforcing existing findings? A helpful framework focuses on two key dimensions often discussed in innovation literature: Novelty (Is it new?) and Creativity (Does it apply new thinking?).

The following classification clarifies the only acceptable intellectual space for advanced research.

Table 2: Classification of Research Contributions

Contribution Type	Novelty (Is it New?)	Creativity (Does it Apply New Thinking?)	Academic Standing	Required Action
Original Research	Yes	Yes	Required / Acceptable	Proceed.
Creative Synthesis	Yes	Yes	Required / Acceptable	Proceed.
Cumulative	No	Yes	Unacceptable	Rethink the research question/scope.

Contribution Type	Novelty (Is it New?)	Creativity (Does it Apply New Thinking?)	Academic Standing	Required Action
Replication	No	No	Unacceptable	Correct the fundamental premise.

The Goal: Every research proposal must strive to occupy the Original Research or Creative Synthesis categories – the ‘Yes’ column in terms of Novelty. A proposal that cannot confidently make the claim of novelty has not yet defined a viable research project.

Strategies for Ensuring and Demonstrating Novelty

To achieve the required standard of Original Research, the student must approach the literature and the research problem with a structured and critical mindset.

1. Identify the Definitive Knowledge Gap (‘What’s Missing?’)

The most common failure in a proposal is mistaking a lack of information for the student with a lack of information in the field. Originality is proven by a targeted and critical literature review (Snyder 2019) that goes beyond summarizing to actively finding the specific Knowledge Gap (Müller-Bloch & Kranz 2015):

Contradictions: Existing studies that disagree on a key point, requiring a new study to resolve the conflict (Synthesis gap).

Underexplored Variables: A known issue where a critical factor (e.g., a specific demographic, region, or technology) has been systematically ignored (Population Gap).

Methodological Limitations: A critical theory that has never been tested using the most appropriate or innovative methodology (Methodological Gap).

The proposal must then use the literature review to pinpoint the exact knowledge gap and state how the proposed research will fill that gap (Müller-Bloch & Kranz 2015).

2. Move from Shallow to Deep Creativity

To effectively address the gap, research activities must be mentally divided into two modes to enhance the student's cognitive capabilities (Newport 2016):

Shallow Creativity (Cumulative or Replication): This involves routine problem-solving, applying known models to new data sets, or incrementally reinforcing existing findings. While useful in practice, this mode *does not* constitute the original contribution required for advanced degrees.

Deep Creativity (Original Research): This involves conceptual reframing. It requires the student to challenge existing assumptions, construct a truly novel theoretical model, integrate disparate fields of study in a new way, or invent a new methodology. This is the intellectual work that underpins novelty and must be evident throughout the proposal's design (Newport 2016).

Philosophical Alignment and the Falsification Imperative

Doctoral research is not simply a technical exercise; it is a philosophical endeavor. A rigorous research proposal must demonstrate that the student's unique thinking style is not only recognized but is also consciously aligned with the research framework, methodological choices, and, critically, the approach to validating (or, more precisely, testing) the hypothesis. Failure to establish this internal consistency often leads to a fundamentally flawed or 'untestable' project.

The Role of Philosophical Underpinnings

A research proposal must clearly articulate its philosophical underpinnings, typically addressing two key levels:

Ontology (The Nature of Reality): What is the form and nature of reality being studied? Is it an objective, external reality independent of the researcher (Objectivism), or is reality socially constructed through perception and language (Constructivism)?

Epistemology (The Nature of Knowledge): What constitutes valid knowledge about that reality, and how can it be acquired? Is knowledge derived through empirical, measurable observation (Positivism), or through understanding context-specific interpretations and meaning (Interpretivism)?

The choices made here directly dictate the appropriate methodology and, specifically, how the principle of falsification will be applied. This alignment is a necessary condition for the ‘deep work’ expected of a doctoral candidate.

The Principle of Falsification and Rigor

As articulated by philosopher Karl Popper, the concept of falsification asserts that a theory is considered scientific only if it can be tested and potentially proven false. The research proposal must embrace this principle, not just to strengthen the findings, but to demonstrate that the study is truly designed for intellectual rigor. Falsification strengthens the research by forcing the consideration of potential challenges and alternative explanations.

Table 2: Falsification Assessment across Research Levels

Research Level	Core Question	Falsification Manifestation (Assessment Point)	Relevance to Proposal
Epistemology	How is knowledge sought?	Defining the criteria for refutation based on the knowledge paradigm (e.g., statistical thresholds in quantitative studies or counter-evidence saturation in qualitative studies).	Crucial: Must be explicitly stated in the theoretical framework.

Research Level	Core Question	Falsification Manifestation (Assessment Point)	Relevance to Proposal
Methodology	How is the data collected/analyzed?	Incorporating specific testing procedures (e.g., null hypothesis testing, triangulation of data sources, seeking disconfirming cases) to deliberately attempt to invalidate the hypothesis.	Crucial: Must be detailed in the research design section.
Ontology	What is the nature of reality?	N/A (Falsification deals with testing claims <i>about</i> reality, not its nature).	Disregarded.
Axiology/Ethics	What is the role of values/morals?	N/A (Falsification is a logic test, not a value judgment).	Disregarded.

As shown in Table 2, the assessment of falsification is focused exclusively on the Epistemological and Methodological levels.

Application: From Cognitive Map to Deep Work

To ensure the research is genuinely designed for refutation and not simply for confirmation (which would be unscientific and fail the rigor test), the student should employ tools that aid Deep Work and holistic design:

Cognitive Mapping: Using a graphic representation of the facts, such as a cognitive map or logic model, assists the student in visually linking the philosophical assumptions, hypotheses, and methodological steps. By mapping the expected outcomes, students can more thoroughly identify the precise point at which a finding would disprove the core thesis, thereby avoiding confirmation bias.

Contingency Planning: The proposal should include a section that addresses what the researcher would conclude if the data disconfirmed the main hypothesis. This demonstrates that the student has genuinely tested the proposal against the falsification principle and is prepared to accept an outcome contrary to their initial belief.

By aligning the philosophical worldview with a methodology that deliberately seeks to falsify, the student proves they are capable of the intellectual honesty and rigour essential for successful doctoral research.

Conclusion

This article emphasized that the essence of a successful doctoral proposal is the demonstration of Critical Creativity. This is achieved by moving beyond the mere description of methods to a convincing, philosophically grounded defense of the research's novelty and feasibility. The conceptual tools and rigorous standards outlined herein serve to transform the candidate from a technician who applies methods into a scholar who designs knowledge. By utilizing conceptual mapping, adhering to the high standard of intellectual 'Drives' in the MCC Matrix (as opposed to mere superficial 'Skills'), and consciously ensuring the contribution is both Creative and Original, doctoral students can dramatically increase their chances of developing a compelling and innovative proposal. This process guarantees the project is conceptually sound, ethically responsible, and intellectually consistent across all levels—from ontology to methodology.

The final document must therefore be presented not merely as a travel guide, but as an indispensable map to new knowledge, compelling the reader through sheer intellectual merit. It must provide irrefutable evidence of the knowledge gap the research aims to fill, and detail the rigorous processes designed to prevent the pitfalls of confirmation bias and non-falsifiability. Ultimately, the successful doctoral proposal is one that convinces the examining committee of two things: the intrinsic worth of the project's novel contribution to the field, and the student's advanced competence and cognitive maturity required to execute the complex, deep work that lies ahead. Achieving this balance provides a solid, defensible foundation for a successful doctoral journey and a lasting academic contribution.

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Chapter 19: Writing in an Academic Register

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Abstract

Adopting the conventions and forms of disciplinary academic writing is a core requirement for students to successfully engage in a university's scholarly community of practice. Yet, writing in an academic register for students whose mother tongue is not English can be challenging for a variety of reasons. Chief amongst these problems is first language transfer, the transition from undergraduate studies to postgraduate research and the genre and disciplinary requirements of writing a thesis. This study is grounded in Halliday's register theory, a key concept in systemic functional linguistics, and contends that language is functional and registers vary according to the contexts of communication. Consequently, it will be demonstrated how Halliday's notions of field, tenor and mode will be of utility to students engaging in academic discourse. The use of appropriate registers in academic writing will advance student efforts in meeting the requirements of particular disciplinary norms, reduce bias, as well as meet the expectations of academic audiences. A formal, academic register will also impress upon the students, language choices such as hedging, boosters, the use of the passive voice, the avoidance of inappropriate phrasal verbs and colloquial patterning (amongst others) in order to maintain an objective and scholarly authorial identity. Finally, insight into writing in an academic register will enable students to effectively recruit the repertoire of resources, discursive structures, logic, augmentation, citation methods and other discourse features of academic writing.

Keywords: academic register, field, tenor, mode, disciplinary norms, thesis writing

Adopting the genre conventions and linguistic features of disciplinary academic writing is a core requirement for students to successfully engage in a university's community of practice. Yet, writing in an academic register for students whose mother tongue is not English can be challenging for a variety of reasons. A lack of academic writing skills has been identified as a major obstacle to the successful completion of the dissertation, among a range of problems encountered by supervisors and students during supervision (Albertyn, Kapp & Bitzer, 2008; Lessing, 2011). Chief amongst these problems is first language transfer, the transition from undergraduate studies to postgraduate research and the genre and disciplinary requirements of writing a thesis. Much of these issues may be rooted in cultural differences in the definition of knowledge, claims of ownership of knowledge, and what is considered plagiarism. In Africa and the African diaspora, these differences stem from African epistemology which privilege communal knowledge transmission, experiential learning, spirituality and holistic worldviews. Here, knowledge is seen as relational and tied to ethical and moral standards linked to the collective ethic of *Ubuntu*.

Eurocentric epistemology, on the other hand, is individualistic, driven by capitalistic conventions, and is based on written records and empirical verification characterised by universal truth claims tied to objectivity. Indeed, Teffo (2000), Vilakazi (2002), and Seepe (2001) make the point that much of what is taken for education in Africa is in fact not African, but rather a reflection of Europe in Africa. Our curriculum is a site where the English language is sacralised, and the internalisation of bourgeois European values is interpreted as an index of progress (Sheik 2021: 29). This perspective requires us to revisit our pedagogies and harness the cultural assets afforded by indigenous worldviews so as to effectively serve the learning needs of African students by validating their heritage and identity.

Additionally, students coming from a lifetime of exam-based tasks now have to adapt to writing an extended piece of writing in the form of a thesis, that is source-based, and fraught with its own set of conventions, structural requirements and ethical codes of research. The expectation of references to prior research, technical lexis and familiarity with particular argument forms and disciplinary norms instill a sense of anxiety and inadequacy, as, for many students, prior experience has not prepared them for this challenge. Consequently, socialization into academic discourse where English is the dominant language should be undertaken with these factors in mind.

At postgraduate level, competence in academic writing has become a matter of particular concern, since students whose mother tongue is not English,

frequently struggle to meet the requirements of thesis or dissertation writing in English (Han 2014; Strauss 2012; Tang 2012).

Focusing exclusively on the formal features of writing, however, ignores a fundamental purpose of a thesis, that is, to advance a set of ideas and a propositional appeal to logic. These challenges may be categorised into linguistic, structural as well as authorial academic writing issues.

At a *linguistic level*, grammar and syntax errors may be found in the use of colloquial language, concord errors, incorrect verb tense and incorrect use of articles, wrong collocation, ambiguity, punctuation errors and wrong idiomatic expression use are but some of these concerns (Mogadid 2021). Additionally, marathon sentences, sentence fragments, choice of topic sentences, lack of vocabulary or inappropriate use of vocabulary, acronyms, beguile a student whose contact with the target language may only be limited to formal, educational settings.

At a *structural level*, challenges with producing a text with coherence and cohesion in an unfamiliar genre of thesis writing and engagement with qualitative, quantitative or mixed method data that align with a particular theoretical inclination may be daunting. These issues are compounded by the requirements of writing in the passive voice, paraphrasing, summarizing and the synthesizing of information amongst other skill sets.

Equally important is the maintenance of a consistent *authorial voice*, with evidence that resonates and support assertions made, rather than contradict or refute what has been said earlier in the text. It is important to note that meaning is not generated independently but in a context with the surrounding text. Hood's (2006) research suggests that student writers often fail to maintain a consistent authorial stance with appropriate linguistic choices that qualify their argument in the text. These writers do not maintain chain reasoning strategies that link ideas logically and reinforce values they have previously introduced in their texts. Instead, they use discordant values that weaken their arguments. This may lead to inconsistent perspectives at odds with, or which may weaken, the research claims already made. On the other hand, experienced writers are able to deliver a more dynamic and focused perspective by using multiple instances of interpersonal resources that accumulate and resonate with one another as the text unfolds (Chang 2010:148).

Moreover, meeting the expectations of supervisors by writing in accepted disciplinary norms, vocabulary, structure and organisation as well as the reporting of knowledge in keeping with scientific standards of reliability and validity require careful scaffolding so as not to cast the student in a deficit

stereotype. How then do we socialize students into the rhetorical, linguistic, social, and cultural features of academic discourse, as well as knowledge of English as used by specific academic disciplines?

Register Theory

Lave and Wenger (1991) posit that all learning is a highly social, collaborative activity in which a learner best acquires new expertise through engagement in the learning community that uses that expertise. With this in mind, this study references Halliday's theory of register to address the gap in second language students' academic capital. Halliday's theory of register is embedded in Systemic Functional Linguistics and explains how language varies in relation to the social purpose it is used for. Halliday defined register as 'a variant distinguished by language use', and 'a set of meanings suitable for a certain language function and the lexical syntactic structures used to express that meaning' (1985/89: 29, 38).

Register theory emphasizes how linguistic choices contribute to the understanding that language use in spoken context differs significantly from written discourses (Zitha & Lambani 2024: 90). Since Halliday has made the case that language is multidimensional (Halliday 2003), to understand 'register' in Halliday's terms is to understand its relationship to such dimensions. As such, Halliday postulates that register consists of three key aspects, **Field**, **Tenor** and **Mode**. Although Halliday's notion of register can be applied to many different types of communication, for the purpose of this study its utility will be concentrated upon academic writing.

Field

The concept of Field in academic writing shapes the content, language choices, and structure of texts based on the subject matter and disciplinary norms. Writing in a Field would entail the use of discipline-specific terminology, adhering to a structure and organisation anticipated by that particular field. An understanding of Field would enable writers to systematically structure a thesis by adopting disciplinary guidelines that enable structural coherence, logical flow, and topic relevance. For example, the Field determines what knowledge domain your thesis is inscribed in and assists in focussing the writers research questions and argument strategy accordingly. Each discipline may use different types of evidence and favour particular rhetorical moves, so knowledge of Field

is instructive in writing a thesis with disciplinary norms in mind. Additionally, the Field outlines the sequence of chapters and the order and format of the front matter of a thesis. These structures are designed to maintain focus, prevent digression and ensure that accepted scholarly conventions are followed. Finally, an understanding of Field is useful in linking the use of academic registers to various forms of knowledge production, e.g. scientific discourse favour writing in the passive voice and the use of technical jargon whilst a thesis on literature may privilege subjective rhetorical moves premised on persuasive appeals.

Tenor

Martin and White (2005: 7) define Tenor as ‘how people are interacting, including the feeling they try to share’. Tenor is also used by writers to draw readers to certain points of view about the content (Butt, Fahey, Feez, & Spinks 2012:165). Broadly, Tenor refers to the social relationships between participants in a communicative act, encompassing aspects such as their roles, status, and the level of formality in their interaction. In formal academic writing, this entails the avoidance of colloquial terms, contractions and the use of personal anecdotes that do not meet the standards of scientific reporting. The writer should engage an academic audience by clearly defining concepts, frame arguments logically and ensure the use of peer reviewed and accredited sources to boost credibility. The student’s positionality is usually that of an apprentice addressing his supervisor as knowledgeable expert or a scholarly audience. The writer’s authority and credibility are also established by the use of the third person. This helps achieve a greater standard of objectivity instead of the first person (I) and the second person (you) in academic discourse, though this trend is increasingly coming into question. Traditionally, though, the passive voice is used ‘to distance the writer or speaker from the text, permitting opinions to be presented and generalised without overt attribution’ (Reilly, Zamor & McGivern 2005:191).

In projecting an authoritative stance, writers need to display a fine interplay of assertion (e.g., when presenting the main argument and the rationale for the study) and openness (e.g. making room for acknowledging other perspectives and negotiating with readers) (Martin & White 2005:142). An effective strategy to achieve this is by the use of hedging. The Oxford Dictionary defines hedging as:

To go aside from the straight way; to shift, shuffle, dodge; to trim; to

avoid committing oneself irrevocably; to leave open a way of retreat or escape (Quoted in Crompton 1997: 272).

If you hedge or if you hedge a problem or question, you avoid answering the question or committing yourself to a particular action or decision (Collins COBUILD English Language Dictionary, Sinclair 1987: 677).

Salager-Meyer's (1994:155) taxonomy of hedges is a useful guide to hedging. Shields in academic discourse manifest as 'it would appear', 'probably' and 'suggest' amongst others. Another class of hedges is that of approximators. This can be seen in the use of frequency adverbs such as 'often', 'occasionally' or 'usually' by way of example. A third class of hedges are the expressions of the authors' personal doubt and direct involvement: (we believe etc.). The fourth and final class is that of emotionally charged intensifiers: (e.g. the preliminary findings are 'particularly encouraging').

Hedging is a signifier of caution, indicating a degree of doubt and that the writer's findings are not absolute. This is useful in academic research where making conclusive inferences from complex and uncertain data sets could be misleading if not impossible. Hedging may be used to display not only the degree of confidence speakers have in their propositions but also how much confidence they feel it is appropriate to display (Crompton 1997: 281). Martin and White posit the following rationale for hedging:

writers should engage their colleagues by displaying respect and due regard for their views and reputations, constructing a subtle equilibrium between 'the researcher's authority as an expert-knower and his or her humility as a disciplinary servant' (13 - 14).

Hedging is commonly used in scholarly writing to appropriately convey the strength of evidence and to acknowledge the possibility of alternative interpretations.

Propositional meaning can be formulated with different degrees of strength, ranging from very weak, tentative statements to very strong, assertive statements. Boosters is a lexico-grammatical feature in a text that contribute to stating conviction and certainty on the part of academic writers (Vazquez & Giner 2009: 221). According to Hyland, boosters (e.g. definitely ..., I am sure that ..., we firmly believe ...) create an impression of certainty, conviction and

assurance. For Hyland, boosters or certainty markers ‘allow writers to project a credible image of authority, decisiveness, and conviction in their views’, while hedges help them to ‘demonstrate personal honesty and integrity through willingness to address hard realities, albeit behind a shield of mitigation’ (1998: 238). Hyland points out that although such assertion of the writer’s conviction can be seen as leaving little room for the reader’s own interpretations, boosters also offer writers a medium to engage with their readers and create interpersonal solidarity. As Hyland (1998: 368) affirms, ‘Boosters are then rhetorical, persuasive strategies which function to mark, or rhetorically manipulate, consensual understandings based on shared community membership’. For these reasons, we must consider boosters in our analysis of the interactional elements influencing the interpretation of propositional information in academic writing. Examples of boosters are as follows:

Adverbs: definitely, undoubtedly, certainly, clearly

Adjectives: obvious, crucial, undeniable, essential

Phrases: it is evident that, there is no doubt that, research strongly suggests that

Different disciplines deal with different data sets and hence, show different amounts of boosters in their discourse. Whereas softer sciences seem to present a stronger need for enhancing the propositional content in the containing statements, harder sciences rely on the exactness of the data used in their research as sufficiently evidential to show the truth of their statements. Boosters will still act as persuasion devices for the discourse. In this manner, boosters will reassure the information conveyed in order to suppress possible alternatives convincing the readership of the truth of the statements (Vazquez & Giner 2009:235).

Another feature of academic writing is the maintenance of interpersonal distance between the reader and the writer. Failure to maintain a critical distance raises questions about the reliability and validity of the research, raising doubts about the objective stance of the writer. Credibility is achieved by citing scholars from peer reviewed scholarly works rather than citing personal experiences in the first person. Impersonal scripts such as, ‘this study concludes’ is preferred to ‘I conclude’, for example. This enables the presentation of information as objective and unbiased rather than as subjectively based on personal opinions.

The linguistic dexterity needed to be able to quote, paraphrase and summarise unsurprisingly result in students incorporating longer chunks of

source texts into their writing (Keck 2014: 120). It is also a widely observed problem that writers may be too dependent on source texts and fail to achieve a distinctive voice of their own. Students, for example, may struggle to connect their thoughts with those of the cited author and as a consequence fail to reach a proficient level of source integration (Davis 2013:127). Citations are significant markers in establishing a credible authorial voice by consistent source attribution and situating a writer's work 'within a larger narrative' (Hyland 1999:345). They permit readers to verify sources used and draw inferences about context and background, aligning a writer's thoughts with peers and experts in his scholarly community. The use of citations is also an indication that the text in question is based on credible research drawn from thought leaders in the discipline. It is also significantly implicated in avoiding plagiarism.

Another element of citation use in authorial voice is what is termed citation presentation, which includes three presentation options: direct quotes, summaries of an individual source, and generalizations of two or more sources (Hanks *et al.* 2024:4). While the social sciences and humanities tend to include quotations, research papers in the hard sciences rarely incorporate direct quotes, whether as fragments or clauses (Hyland 1999:346), indicating a difference in disciplinary preferences in the use of citations.

Writing summaries of research notes is an important skill for postgraduate students as it enables them to engage critically with existing literature, synthesize information from a variety of sources, and integrate sources into their own study. By condensing information into a concise form, students demonstrate their ability to extract key points without losing the essence of the original text. Summaries also enable the core requirement for students to make the shift from consumers of research data to creators of research-based knowledge (Hood 2006:39), indicative of both a reflective practice and judicious presentation of source documents. Moreover, it is also a critical step in avoiding plagiarism.

One must also be wary of how meanings can change during the process of summarising. Supervisors must avoid representing the task of summary writing simply or fundamentally as one of reduction of content, as an exercise in discarding and omitting (Hood 2008:163). Consequently, bias in interpretation of a text and being faithful to the meanings engendered in the original source warrants more scrutiny than is generally assumed and cannot be taken at face value. The task needs to be explained instead in ways that explicate the different meaning relationships that adhere between changed wordings. Successful summary writing requires an awareness of the demands of the task

and scaffolded support to develop the required linguistic resources (Hood 2008:363).

Postgraduate students whose mother tongue is not English also find it challenging to develop the intertextual skill of paraphrasing (Yamada 2003: 248). Paraphrasing is defined as recontextualizing source information in one's own writing whilst crediting the original author. In academic writing, paraphrasing entails reconceptualizing the source text coherently with the writer's own authorial intentions. By adding one's own authorial intention and persuasive power, paraphrasing, to a certain extent, 'almost invariably demands a refraction or distortion of the original meaning' (Orellana & Reynolds 2008: 61). This is driven by the fact that paraphrasing involves inferential thinking in order to produce new textual meanings and is therefore invariably implicated in degrees of subjectivity. If all paraphrases involve some modifications in that the original proposition is recontextualized, students need to learn to do it properly. Keeping the same sentence structure and changing only a few words is tantamount to plagiarism. Supervisor should encourage peer review and critical discussion of paraphrased texts, checking if the recontextualized text does not incorrectly attribute ideas to the original author (Shi *et al.* 2018: 42).

A key contributor to our understanding of the discourse structure of introductions to research is Swales (1990; 2004), who pointed out that introductions are always marked with an evaluative authorial voice. In his CARS (Create a Research Space) model for introductions, Swales (1990; 2004) describes three major moves, 'Establishing a territory', 'Establishing a niche' and 'Occupying the niche' and steps for presenting those moves that include such active rhetorical actions as claiming, reviewing, counter-claiming, questioning, indicating, and announcing. Accomplishing these discursive activities rests heavily on the author-writer's manipulation of language resources that create a convincing stance through a balance of assertion and concession. Swales notes that authorial comment is more frequent in the Introduction and Discussion sections than in other parts of a research paper (i.e., the Methods or Results sections) (Quoted in Chang and Schleppegrell 2011:141).

Mode

The third dimension of context is Mode. In academic writing, mode is typically characterized by a formal, written medium that is carefully planned and non-interactive. Mode is related to textual meta-function in that it refers to the organisation of meaning into a coherent text (Butt, Fahey, Spinks & Yallop

1995: 14). Similarly, Halliday (1985: 12) defines Mode as ‘the symbolic organization of the text, the status that it has, and its function in context, including the channel used and the rhetorical mode adopted’. In academic writing, Mode may be conceived as the way ideas are organised in the text. Mode also refers to the use of cohesive devices such as conjunctions and referencing to ensure clarity and flow between ideas. A critical aspect of Mode is the presentation of information in a logical sequence with clear headings and subheadings to guide the reader through the thesis. This takes us to a consideration of genre.

Genre is a term for grouping text together, representing how writers typically use language to respond to recurring situations. Each genre has a specific purpose, an overall structure, specific linguistic features, and is shared by members of that culture (Hyland 2009: 15). Texts belonging to a genre are conventionalized, to differing degrees, in terms of sequencing, of layout, of phraseology, and there are expectations of, and constraints on, the structure and linguistic expression of such texts. These expectations can vary from one disciplinary community to another.

Writing in a Register

Whilst disciplines are defined by their writing, it is a matter of how they write than simply what they write that makes the difference between them. Disciplinary variation is noticeable in appeals to background knowledge, different means of establishing truth and different ways of engaging with the reader (Hyland 2013:6). One must take cognisance of how tenuous claims to truth may be. Textual representation is always filtered through acts of selection, foregrounding and symbolisation; reality is seen as contracted through processes that are social, involving authority, credibility and disciplinary appeals. Objectivity then becomes consensual intersubjectivity.

Postgraduate students should then appreciate that writing in an academic register is invariably a process of selection sanctioned by an academic community who operate in the filter bubbles of particular genres. Hansen postulates that a novice in a discipline needs primarily to learn to think in the way that is ‘sanctioned’ by the disciplinary community (1992: 207). The persuasiveness of a text does not depend upon the search for absolute truth, empirical evidence or impeccable logic, it is, ultimately, the result of effective rhetorical practices accepted by members of that community.

Implicit in writing in appropriate academic registers is the recognition

that language is not simply a set of discrete, decontextualized rules but a social and cultural phenomenon that reflects the values and beliefs of a particular community or culture. For students whose mother tongue is not English, writing in an academic register is almost like learning a new language. Students are required to master new lexicon, structures, and genres while acculturating to new ways of thinking and engaging with encoding and decoding textual material.

Consequently, writing a thesis requires a student to situate his or her work in a greater discursive context. In parallel to understanding the expectations of disciplinary genres, several critical questions must be mediated: what counts as knowledge, what kinds of arguments carry weight and don't, what procedures are common to the disciplinary community? All of this epistemological and social information is encoded in complex ways into the register(s) of the discipline (Hall & Navarro 2011: 11). Lea and Street's academic literacies model can also be insightfully modelled onto writing in an academic register:

An academic literacies model is concerned with meaning making, identity, power, and authority, and foregrounds the institutional nature of what counts as knowledge in any particular academic context... it views the processes involved in acquiring appropriate and effective uses of literacy as more complex, dynamic, nuanced, situated, and involving both epistemological issues and social processes, including power relations among people, institutions, and social identities (Lea & Street 2006: 369).

This resonated with Halliday's theorization of register in terms of both field and tenor, focusing attention to the power relations between student and supervisor and the way knowledge is mediated in that tension. Writing then is essentially a social process in which supervisors should engage students in a supportive and scaffolded manner, free from the hyperbolic lamentation of deficits in students whose mother tongue is not English.

Indeed, writing pedagogy for postgraduates should gravitate more towards viewing student experiences, culture, linguistic preferences and identity as assets to build upon, rather than as problems or learning deficits in monolingual contexts of English. The first step is to better understand the experiences and abilities of the growing population of students from a variety of linguistic backgrounds at our universities. The challenge for supervisors is to find ways to leverage the language learning tools and cultural assets students bring with them. We need to ask ourselves the question, are there other skill

sets, other attributes of students' experiences, including experiences with and in other languages, that may assist them towards developing incremental competency in writing in an academic register with confidence? Halliday's concept of register is useful in helping supervisors provide explicit instruction about the distinctive features of academic writing, rather than limiting feedback to correcting grammar at the sentence level.

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Chapter 20: Remembering Forward: Memory Work Principles in Transformative Postgraduate Supervision

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Abstract

This chapter argues for a fundamental reconceptualisation of postgraduate supervision in South African higher education through the theoretical framework of memory work. Reflecting on thirty years of post-apartheid doctoral education provision, the chapter demonstrates how transformative doctoral supervision requires moving beyond hierarchical, performativity-driven models toward collective, democratic approaches that value contestation and multiplicity.

The chapter is structured in two complementary sections. Section One explores memory work as a theoretical foundation, examining how productive memory-making operates through non-linear temporality (*kairos* rather than *chronos*) and relational experiences. It identifies five ‘pedagogo-pathologies’ (amnesia, fantasia, solitaria, inertia, and nostalgia) that undermine transformative potential by perpetuating apartheid legacies and conservative practices. Section Two applies these insights to postgraduate education, critiquing the quantitative obsession with doctoral outputs while presenting an alternative cohort model of supervision that embodies memory work principles.

The cohort model demonstrates how collective memory-making can disrupt traditional power relations through collaborative communities of practice involving multiple supervisors, students, and graduates. Various permutations of this model have evolved across disciplinary, institutional, and international contexts, addressing supervisory capacity challenges while promoting democratic engagement and creative ‘serendipitous accidents’.

The chapter concludes that transformative supervision requires con-

scious commitment to challenging comfortable patterns of the past while remaining open to uncertain futures. Memory work provides a theoretical scaffold for continued experimentation in curriculum design, though further empirical research is needed to evaluate long-term transformative impacts across different institutional and cultural contexts.

Keywords: Memory work, transformative postgraduate supervision, cohort model of doctoral supervision, post-apartheid higher education, democratic curriculum design

Introduction: Memory-making and Reimagined Transformative Postgraduate Supervision

This chapter argues that a reimagined postgraduate supervision model is required to challenge the habituated hierarchical patterns that invalidate a deeper transformative democratic agenda of post-apartheid South African higher education. Such reimagining of an alternative requires the need to generate curriculum spaces where productive learning and the campaign for democratic transformation can be brought together in robust, meaningful dialogue within the postgraduate supervisory space. This entails that the productive postgraduate supervisory learning space values simultaneously coherence, contestations and social justice aspirations for future directions.

The chapter draws on theoretical foundations of memory work, which point to how we remember our past and reconsider the present circumstances to move towards a reimagined future. Perhaps all reconstructive learning involves some form of memory work, grafting our past, present and future not in linear ways, but actively seeking to redirect towards transformatory, broader, more meaningful insights. In particular, the chapter will focus on how this memory work framework can be activated as a curriculum force within a remodelled postgraduate supervision space that attends to the values of contested and conflictual engagement rather than adherence to disciplinary boundary defensiveness and habitual hierarchical routines.

The chapter is divided into two broad overarching sections. Section One will elaborate on conceptions of memory-making, especially within the context of thirty years after the first 1994 democratic elections in South Africa, whilst Section Two will tackle how elaborated, contested notions of the inter-

connections of time and relationality can assist in reimagining the reform of doctoral postgraduate supervision. Section Two will foreground the theoretical and practical potential of an alternative cohort model of postgraduate supervision to activate engagement, contestation and generate creative serendipitous accidents. The cohort model links the memory-making framework to an alternative educational transformative agenda.

Section One: Memory-work: (Re)membering our Future

This section points to how memory-making is itself neither neutral nor uncontested and requires elaborated non-linear conceptions of time. Nevertheless, the argument signals that moving towards a productive, creative memory-making is paradoxically undercut by the dominance of pathologies that steer the system towards containment rather than elaboration. Memory work could be critiqued as restrictively consolidating the past hegemonies and hierarchies, but it also has the potential to challenge inequities and activate alternative transformative spaces. Drawing these conceptions of positive disruption is seen as a potential force for curriculum transformation, which will be argued further in Section Two.

This section provides the theoretical exploration of memory work, with its embedded complex and assertive processes and outcomes of making memories that are retrospective and prospective, as a potential foundation upon which curriculum designs of postgraduate education and supervisory models could be built. How history is reflected upon thirty years into the new democracy is evocative to demonstrate the process of memory-making currently at play. These historical reflections are reminders that the reconstruction of the education system ought to be primarily driven by the transformative quest for a more socially just post-apartheid society. However, other agendas have come to subvert this primacy.

Towards Productive Memory-making: Reading History Critically

The doors of learning and culture shall be opened is the popular refrain in the Freedom Charter, which remains, almost seventy-five years later, one of the documented benchmarks internationally of a democratic movement driven from the ground up to set the goals for a dignified life freed from the apartheid

oppressions of racial, sexist and classist bondages (Suttner 2015)¹. The principles of this people-driven agenda became enshrined in the new post-apartheid Constitution (Republic of South Africa 1996; Liebenberg & Young 2018). Similar initiatives to take stock of the past and interrogate its setbacks to charter a way forward for consolidating our democracy and socio-economic transformation have been undertaken across the country. These initiatives accent the many layered dimensions involved in the process of transformation, including at governmental policy levels (Department of Higher Education and Training [DHET] 2024), at institutional curricular levels (University of Johannesburg - UJ 2024) or community-based organisation programmatic levels (The 1860 Heritage Centre 2024). Each constituency chose to engage in how it remembers in varied ways.

For example, the political reporting pointed to the strides that have been made to reflect the increased demographic participation of previously marginalised groups, especially within higher education (Department of Higher Education and Training, DHET 2024)². An assemblage of academics at UJ provided a balance between a variety of perspectives from policymakers and critics, from bureaucrats, managers and academics, from advocates and theoreticians to fuel debates about our histories (or whose histories) about the building /architecture of the higher education system³. The 1860 Heritage Centre in Durban foregrounded its campaign not to forget the contributions of the stalwarts of the Indian community. Nevertheless, by extension, it aims to examine the intersection between the Indian indentured labourer's original heritages of the community (the remembered past) and its evolving diasporic identity in post-apartheid society (the future present). In this regard, the Centre professes itself as a potential space where the connectivities between the

¹ Yunus Ballim (first Vice-Chancellor of a newly-created post-apartheid university) cautions that the Freedom Charter was directed at fostering a broad-based democratic *dignity*, not econometric *ascendancy* into a middle-class for a selected new elite (UJ 2024).

² More subtle nuances of the achievements and challenges of higher education participation are explored further in the CHE report on the epistemic access and success of historically disadvantaged students in South Africa post-apartheid public universities (CHE 2022a).

³ See link for the full programme and speakers:

[https://url.za.m.mimecastprotect.com/s/fPwNCP1JWRtEA8X7C0hBu9qI8p?d
omain=acrobat.adobe.com](https://url.za.m.mimecastprotect.com/s/fPwNCP1JWRtEA8X7C0hBu9qI8p?domain=acrobat.adobe.com)

multiplicity of Indian identities and their quests for the broader social justice discourse should feature prominently (The 1860 Heritage Centre 2024).

These efforts signal that our agendas for remembering are never neutral. They are implicated in how we see the relationships between the past, the present and the future. They also accent that we do not remember alone. We all select with whom we wish to make memories. We selectively choose the options for what will constitute our repertoire of achievements and setbacks. More assertively, memory-making is not fundamentally about the past, but is entangled in the ways in which the past can be used to reimagine our present and future selves. Reappropriated productively, memory-making, thus, becomes a process of active learning, selecting and deselecting those elements that fuel our planned intentions. While the memory-making is shaped by the past, it collides with multiple contested and fluid entanglements of several competing and coherently aligned forces that co-exist. Thus, the educational space should be one in which these contested collisions and assertions are opened to scrutiny. Transformation is not simply about capitulation to the agenda of singular, powerful perspectives; instead, the education space should be a space for exploration of alternative and multiple readings of our world.

Reconceptualising Time: From *Chronos* to *Kairos*

The above examples about memory-making at policy, curricula and programmatic levels, when they adopt an uncritical one-sided reflective stance, present the dominant default to understand time in linear and chronological ways. This conception of time is referred to as *chronos*, which segments human experience into discrete units. The past, the present and the future are suggested in this caricature to unfold in sequential, bounded ways⁴ and has contributed to humans' understanding of their worthiness in relation to how much effort they expend at any one moment or defined span of time. Measures of success become calculations of how we utilise time efficiently. Individuals are also rewarded in relation to these valued bytes of time. Their efforts are understood as efficient units of the measures of time. So, mantras like 'don't waste time' or 'time is

⁴ This draws from a paradigmatic dominance of the positivist epistemological worldview, which emphasises discrete 'truthful' ways of knowing, celebrating the quest for certainties. To achieve the 'scientific' way of knowing, researchers are expected to disrobe themselves of any subjective personal interpretations to adopt an objective relationship to that which is being researched.

money' soon come to be equated as hallmarks of a productive system. These conceptions of linear time have become infused into our policy and curriculum choices, as we begin to measure the worthiness of our curriculum in relation to matters of efficiency, rationality and performance outputs.

This chronological interpretation of time often neglects that some moments of time are considered more important than others. A critical moment in time that is considered an opportune moment for something to come into existence is referred to as a '*kairos*' moment. One modern scholar who has extensively engaged with the concept of the *kairos* moment is Thomas Rickert. His work often explores *kairos* in the context of rhetoric, new media, and the intersection of technology and human agency. He suggests that we are surrounded by declarations that often are symbolic, paying deference to political or econometric mantras, often without any deep intention to translate into concrete, real, socially relevant action. Additionally, social media create fictive and marketised communities that feed incestuously with and on their targeted audiences. The loss of human agency amidst the powerful potential of technologised ways of activating knowledge is an increasing concern in many realms.

Rickert's scholarship considers *kairos* as a pivotal moment of opportunity that is deeply contextual, emerging from the interplay between time, place, and discourse (Rickert 2013). *Kairos* within curriculum spaces pays attention to the quality of *relational experiences* that individuals harvest as an influence of being part of a collective meaning-making and shared dialogical agenda in a democratic trust and valuing of diverse vantages. Focus is directed towards how the relational experiences contribute to the quality of collective transformative goals.

Furthermore, the relegation and ascendancy of moments in time emanate not solely from highly individualised, experiential interpretations. Memory making is inherently connected relationally to the broader community within which one is located. Personal phenomenological experiences cannot be separated from embedded and embodied wider historical, sociological, political and cultural ways of seeing (Samuel, Reddy & Brown 2022). For example, the fleeting second of a significant moment is less about the duration of the event than about the significance of that moment for that individual in relation to their own past conceptions, prior knowledges and previously socialised constructs. Time, in this latter interpretation, is considered as something experienced, reflected upon and ingrained into one's evolving memories. Learning embraces the embodied moments and is constitutively linked to a social space.

A productive curriculum design activates this personal-social relationality, acknowledging not a unidirectional communication from a singular, all-powerful knower to a passive recipient. Instead, it allows for multiple opportunities to serendipitously co-exist, out of which individuals make choices. It is the quality of the social experience (its *kairos*), not the length of time (its *chronos*), that matters. Hence, curriculum design in higher education should be about providing opportunities for these moments of disruption and contestation to occur, which allure respectfully all participants to draw on their own legacies to make sense of a particular new learning process.

Learning is embedded not only in the immediate present but also embraces dimensions of both past and future possibilities. Hence, the *kairos* directs the current experience toward activating a better version not just of the individual but of the system. It is transformative not just of the self but also of the social context within which the self operates.

The diagram below (Figure 1) captures the agenda of the *kairos* moment as prospectively systemically directed.

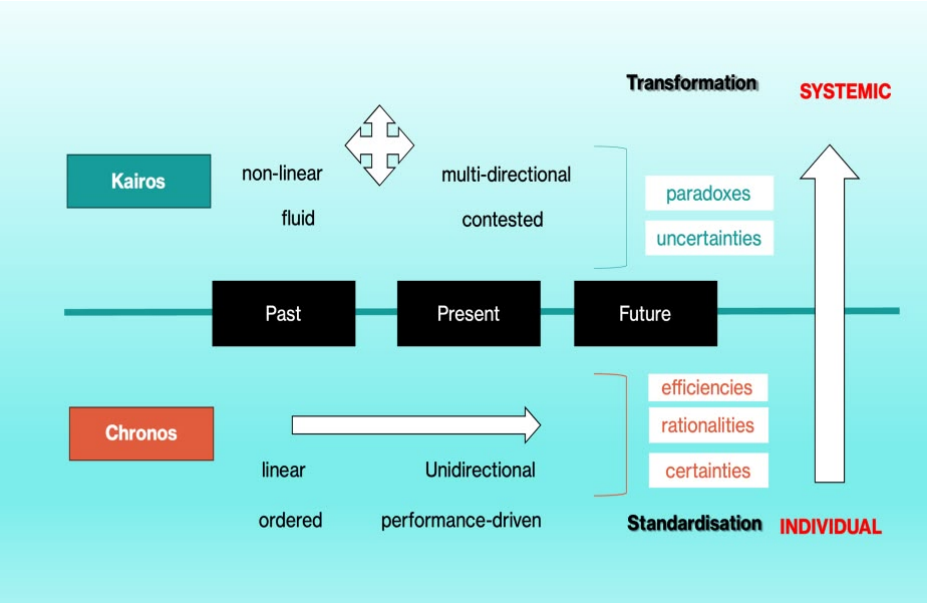


Figure 1: Transformative memory making: From *chronos* to *kairos* (Sources: Author’s own.)

This diagram translates within the curriculum design spaces of higher education to challenge the extant tacit interest directed towards the development of individuals at the expense of the collective. The present higher education space suggests that personal ascendancy overrides questions of whose interests the curriculum design serves. Instead, the curriculum design based on a *kairos* agenda is about assuring that social transformative goals of the curriculum are not just professed as symbolic targets but are translated into how practical engagement between various role players takes place to activate socially just and democratic intentions.

This more open democratic social space is not necessarily directed towards providing congratulatory affirmations of one's past legacies, and one's capitulation to the safe comfort zones. The contested disruptive curriculum expects that whilst some forces appear stable, they are feverishly turbulent, embedding and holding power aggregations and marginalisation, contradictions and tensions. Transformative education is about exposing these laden elements of assertion and subordination towards the activation of more socially just rearrangements. A disruptive *kairos* curriculum space may be birthing new possibilities arising out of contradictions and disputes. Our seeming deaths might be revolutionary new possibilities. This is the deeper curriculum agenda of deep transformation.

Yuval Harari (2017) (in his book *Homo Deus: A Brief History of Tomorrow*) reminds us additionally that this complexity and contradictions are the nature of our future revolutionary history. However, unlike the revolutions of the past, such as the agricultural or the industrial revolution, the modern era is likely to endure simultaneous multiple recurring revolutions. He suggests that revolutions of the future are likely to be short-lived since newer technologies will outshine their sustained trajectory. They will also tend to be repetitive in minor variations rather than being incrementally evolutionary. Whereas previous, more stable, enduring revolutions spanned several decades, the present information revolutions, biological and climatic revolutions of the present times, are morphing exponentially on a weekly, if not daily basis, as new knowledges come to bear upon human existence by human or artificial means. Education cannot be about holding down the traditions of legacy or habituated rituals that stabilised our existence and calmed our memories. Instead, our new education must be directed to assist in how we interpret our entanglements and should provide means to interpret how to know what to know when we do not know how to know. This entails living in what is coined an '**infinite present**' where the past, present and future co-exist in dialogical iterative engagement

(Manathunga 2014). Future education is not about certainties, but about how to negotiate uncertainties.

Pedagogo-pathologies: Undermining Productive Memory-making

Unfortunately, our memory-making is not yet sufficiently robust to cope with these uncertainties. In exploring these limitations, Lee Shulman (2017) suggests that teachers, educators, curriculum designers and higher education researchers (specialists and supervisors) suffer from several ‘pedagogo-pathologies’ which disable or undermine the potential of our educative responsibilities. These powerful pathologies constrain memory-making towards attempts to standardise and fossilise current modes of operations. These celebrate the architects of the conservative past rather than the designers of the alternative future. He listed these pathologies as follows:

- **amnesia** (*a selective forgetting of priorities*),
- **fantasia** (*a romanticisation and simplification of what is possible in a complex intersected world*),
- **solitaria** (*an obsession with private hoarding rather than disseminating of possible leverage pedagogical possibilities*),
- **inertia** (*a reverting to habituated rituals as if educational choices are a-contextual or timeless*) and
- **nostalgia** (*believing that we once lived in a golden age in the past*) (Jenvey 2015).

Whilst these pathologies are pertinent to activating a scholarship of teaching and learning research, I am arguing that they may be useful instruments to examine how our collective remembering occurs within the education system, particularly in postgraduate educational curricular and supervisory spaces. I now turn to provide examples of how these memory-making and vagaries of time and space play themselves out in the educational spatiality. My suggestion is that whilst the memory-work model of relationality has the potential to challenge apartheid legacies towards transformative potential, our pedagogo-pathologies could serve to perpetuate and consolidate the rituals of the past. New curriculum possibilities for postgraduate supervision could emerge out of this entanglement.

Section Two: Transforming Postgraduate Education: Memory Work and Curriculum Design

Section One explored the potential of a memory work model as a transformative lever and the pedagogo-pathologies which undermine it. In Section Two, I explore how the higher education system can appropriate these entangled ways of being and becoming, membering and remembering within the postgraduate supervisory space. How we remember (our memory-making), with whom we remember (our partners in memory-work) and in whose interest (our goals) we choose to reimagine our future constitute the foundation principles for examining higher education pedagogies of supervision prospectively.

I examine firstly, the drivers of transformation in the higher education postgraduate space with its unique ways of remembering, and then the pathological blockages of selected mechanistic translations that support low levels of quality research. The section then expands the possible options of theoretical models of doctoral supervision, suggesting the need to critique the learning models that underpin the design of doctoral education curriculum. This exploration of the range of possible models suggests that we have the potential to critique the paradigmatic orientation of our learning pedagogies in the supervisory space. Unconsciously, supervision practices might be conserving ritualistic and habituated practices of the past rather than promoting a more socially just and democratic transformative curriculum practice. I present the cohort model of doctoral supervision, which draws theoretically on the model of memory work described in Section One, promoting a valuing of dialectical contestation, complexity and contradiction. I then demonstrate how the original cohort design has evolved into many permutations within a selected School of Education context. The arguments suggest why this cohort model of doctoral supervision is considered to activate deeper transformative goals of postgraduate education.

Higher Education: Evolving Reflections on Doctoral Education Provision in Post-apartheid South Africa

My focus in this sub-section is now directed towards how postgraduate education is reported on within the higher education sector. Doctoral education is considered the endpoint exit qualification of the higher education system. However, rather than concentrating on the transformative and social influence of the research agenda of doctoral education as a knowledge contribution, measures of the success of postgraduate education have taken on new pathological

fetishes, foregrounding exclusively quantitative performance outputs of the different higher education institutions. This was perhaps spurred on by the critical analysis (of which I was a part) in the Academy of Science of South Africa's (ASSAf 2010) reflection on the status of PhD production in South Africa.

After fifteen years of post-apartheid democracy, the system still reflected the remnants of a highly skewed system. Globally, South Africa was reported at the bottom end of the low percentage of doctoral graduates per million of the population⁵. Similar developing world countries like Brazil and Korea outcompeted South African production. While being the largest of the doctoral education systems continentally, the national system still recorded a low percentage of academic staff with doctorates in historically under-served institutions. This had the effect that fewer doctorate graduates were being produced by those institutions which do not share the history of a strong research tradition. These legacies were aligned with apartheid racialised configurations, where undergraduate teaching rather than research production dominated. A snapshot indicated that during the period 2000-2012, 70% of all doctorates were produced by only six previously advantaged institutions (ibid.). The National Development Plan (NDP) 2030 set new benchmarks to increase the productivity of doctoral graduates, with a target of 100 graduates per million people by 2030 (National Planning Commission 2012). This was mooted not just about spreading capacity throughout higher education but argued to be allied with activating a research-led economic development process. These targets translate into the higher education (HE) system being expected to produce 5000 new doctorates per annum. The rate of doctoral graduates in 2010 was 1421 nationally. The DHET (2022), in a report entitled *'Are we Producing Enough Doctoral Graduates in South Africa?'*, reported the following trends over the period 2012 to 2022, showing an annual increase in the output of graduates from public higher education institutions⁶.

⁵ Based on comparative International Standard Classification of Education (ISCED) South Africa produced 27 doctoral graduates per million of the population. This official framework facilitates international comparisons of education systems as sub-unit of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

⁶ This data constitutes the most recent audited data from the Department of Statistics on Post-School Education and Training. The output from private education is relatively small. For example, the DHET (2022) report indicated

Table 1: Number of South African doctoral degree graduates, 2012 - 2022

Date	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
No.	1879	2051	2258	2530	2797	3057	3344	3445	3552	3574	3690

Source: Department of Statistics on Post-School Education and Training (Khuluvhe & Netshifhefhe 2023)

On the one hand, this increase could be considered as evidence of the growth of the system, but the Department of Statistics on Post-School Education and Training reflected that the 3690 graduates produced in 2022 were well below the original 5000 per annum target (Khuluvhe & Netshifhefhe 2023).

Moreover, the Council on Higher Education (CHE), the quality assurance body reviewing higher education provisioning, was concerned that this steady increase tended to prioritise quantitative rather than qualitative measures of doctoral education.

It is not surprising that the Council on Higher Education (CHE) in 2020 commissioned a national review (ten years later) to look at doctoral education provision, which still bore the hallmarks of underproductivity. For example, the concern was that the NDP set the target of increasing to 75% the percentage of academic staff with a doctoral degree (a proxy for the pool of potential supervisors), yet in 2022, only 52.5% of South African university academic staff had a doctoral degree (Khuluvhe & Netshifhefhe 2023).

Table 2: Share of academic staff with a doctoral degree in South African universities, 2012 - 2022

Date	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
%	38,6	41.1	42.9	43.8	44.9	46.0	48.0	47.7	49.3	48.8	52.5

Source: Department of Statistics on Post-School Education and Training (Khuluvhe & Netshifhefhe 2023) based on HEMIS database

that there were 33 doctoral graduates from private higher education institution (HEIs) in 2022.

This table points to the demands of the NDP being largely unrealistic and unattainable given the prevalent low supervisory capacity of the system.

Disappointingly, the synthetic national report after the doctoral studies review (CHE 2022b) transferred the responsibility of renewing the system to the higher education institutions (HEIs) themselves, suggesting that there was a need for greater clarity on the purpose of doctoral studies as a driver of original, significant contribution to academic knowledge. This could be considered as a simple *romanticisation* of the repeated declaration of the targets of the system, without examining adequately what was possible within the realities of the differentiated higher education context. This could also be considered as externalising the systemic responsibility of the national departmental system to ensure resourcing the system to build the supervisory capacity of underproductive higher education spaces. Management systems, such as ethical procedures, came to be foregrounded as their concern. There was an expected declaration for increased project management skills and the need to prepare doctoral students better in soft skills such as communication and entrepreneurship, considered as needed in the job market. The report encouraged new structures and formats of doctoral programmes to allow for different disciplinary and interdisciplinary approaches. Was this a form of *fantasia*, simplistically declaring the outputs and re-directions required without providing the specific means of how to achieve this? This could be considered an example of the pathologies that Shulman (2017) pointed to in Section One above. The national report deflects the agenda and selectively chooses not to acknowledge sufficiently the broader historical divergences of resource provisioning of the apartheid legacy. Ironically, the advantaged institutions are celebrated for being advantaged, and the disadvantaged HEIs are expected to rise to the status of the target simply by internal mechanisms and management processes. This is an example of selective forgetting.

Reflecting on these CHE propositions, academics (postgraduate researchers and their managers) were concerned that there was insufficient attention given to the pragmatics of how these laudable intentions were to be translated within the HE system. Some argued that these ideals were again forgetting the specificities of the different higher education institutions, where research capacity was undermined by localised spatial and contextual issues. Simply demanding increased productivity could also have the capitulative effect of the institutions feigning adherence to the targeted outputs without paying adequate attention to the quality of the graduates they were producing. An underlying deficit and judgmental discourse indirectly celebrated the more

affluent institutions, while offering little support to marginalised institutions. Again, marginal institutions were being cast as spectators of the game of the powerful. This *amnesia* promotes selective forgetting of the real challenges in higher education institutions, which in practice must deal with the multiple challenges of an expanding education system.

A positive feature of the report was to recognise that alternative *models of supervision* were already being used within the HE system, and that there could be more collaborative engagement across differing institutions to share curriculum designs and models of supervision. The report suggests that we do not need to work in *solitaria* without looking for inspiration for alternative transformatory supervision models which already exist in some contexts. The rest of this chapter will address the interest in shifting the discourse towards a deepening of the quality of doctoral education curriculum through experimenting with alternative approaches to doctoral education and research supervision, which promote a more socially just democratic curriculum space. This shift is underscored by a range of researchers who chose to document their alternative pedagogies of critical hope for the future of doctoral education in the post-apartheid South Africa⁷.

Further, rather than an obsession with stories of failure, Samuel and Mariaye (2023) work with authors across the national and international context of reviewing doctoral education who choose to reflect on the evidence of *successful alternatives*. An anthology entitled '*Transforming postgraduate education in Africa*' captures these 'stories of success' shifting from superficial demographic shifts of participation in postgraduate education and quantitative measuring of the system's outputs towards a deeper conception of transformative postgraduate education and research (Samuel & Mariaye 2023). Firstly, the argument of the anthology critiques the notion that doctoral graduation is solely about producing a technically competent report. It is expected that a research report (doctoral thesis) must be coherent in its design and analytical stance, but, more importantly, be about activating a process of self-awareness and scholarship as a way of being. Doctoral education in this formulation understands the importance of teaching students within their doctoral education curriculum about leadership and activating a responsibility

⁷ Bozalek, Leibowitz, Carolissen and Boler (2014) argue against celebrating the naïve hope of those exotic few who escape the hegemonic norm. They argue for a critical hope which understands deeply the blockages to equitable achievements.

and responsiveness to contextualised social challenges. Rather than the emphasis on obtaining a doctorate for the sake of the honorific titles or serving the careerist intentions for promotion, a doctorate should be teaching students about the 'self-in-service': using one's education prowess to serve the community in which they reside. Rather than promoting discipleship (a following and cloning of the habituated rituals within a field of study), the new doctoral graduate should be able to activate boundary-crossing and shared dialogues across sectors and levels. The theoretical and philosophical input of the doctoral study ensures it is the apex qualification. The engagement in the research process ought to be directed towards the generation of a deep transformation that affects the quality of lives of the future persons with whom one interacts. Doctoral education cannot simply be about producing quantitative measures of outputs and graduation numbers.

Research Pathologies

However, the research terrain is littered with malpractices where supervisors and their students become complicit with an agenda of *disguised advocacy*, using the research process merely as a formality for foregone conclusions. To speed up the production line of doctoral education, supervisors, caught within the performativity discourse of quantitative outputs, choose study designs that can efficiently and speedily produce desired results in record time. Sampling in this vein is chosen to support the already presumed assumption that the researcher has before s/he began the study. These studies tend to conclude with definitive and categorical knowings which are often detached from the complexities of social settings and their challenges. Arrogant studies reflect no tentativeness and instead profess a tendency to singular certainties (whilst privately acknowledging that many vacillations might exist). The researchers (and their supervisors) are led by the unethical agenda of introducing an already foreclosed solution without due attention to the effect or impact their research will have on the lives of the social communities where the research is conducted. This deeper ethical agenda ought to be what constitutes the quality of research agendas, rather than capitulations to formulaic considerations (usually based on laboratory-like scientific research traditions). Especially in the humanities, one needs to develop deeper considerations of what research ethics and social responsiveness mean.

The performativity discourse in research has activated the view that doing doctoral education is about displaying the outward manifestations of a

qualification. They promote a logic of a *chronos* rather than a *kairos* mentality about time and commitment to the complexity of knowing and knowledge-making. However, alternative models directed towards a deeper transformation of postgraduate research should guide the interaction between supervisors and the supervised, which values the democratic respect for contested multiplicities and robust experimentation of complexification rather than reduction.

Alternative Models of Research Supervision

Some involved in research supervision are not explicitly aware theoretically of the learning model that underpins the way in which they engage in the supervision process. Doctoral supervision constitutes a curriculum itself that is not sufficiently interrogated for its pedagogical underpinnings. The traditional and dominant model that underpins most supervisor relations is that of a one-on-one supervisor-student model, where an expert master supervisor apprentices a candidate/ student to adopt the approach, theoretical works view and methodology of the custodian of the project. Drawing from its *behaviourist roots*, the candidate is evaluated in terms of how well s/he clones the supervisor and replicates the former's standard of behaviour. This might also include cloning of values that imitate those of the supervisors. Such a model ensures that the student stays on track in line with the authority and expertise of the supervisors. Students' experiences within this model are generally accepted since the relationship of supervision succeeds when the master is an expert in his/ her field. However, there is a potential for abusive power being enforced over the student when s/e has little leeway to disagree with the master.

A more *rationalist approach* aims to ensure that the student is first inducted into the propositional knowledge that needs to be applied in the fieldwork to be undertaken. In this supervision model, the supervisor is likely to insist that the scope of the theoretical worldview of the project is first thoroughly understood before the student researcher can enter the field. Supervision is usually prefaced with lengthy periods of reviewing existing bodies of literature and theoretical frameworks (and/or methodologies) before the candidate is allowed to suggest a directed and informed choice for the proposed study. This applied science model spans not only traditional scientific research, but also is evident in many professional programmes, such as medicine, engineering, teacher education, law and others.

A *reflective practice model* of supervision, by contrast, is concerned with the personal growth and development of the individual student as a practitioner who can self-reflect on research choices made. The emphasis in this model is on ensuring a weighing up of multiple interpretations and meaning-making processes, which may even contradict each other. The supervision space is one in which the supervisor and the student explore lines of inquiry, negotiating interpretations of the alternative ways of seeing. This is a common expectation of many social science research studies.

By extension, a *critical reflective model* is consciously aware that the research space, its fieldwork context, as well as the relational space between supervisor and supervised, are a highly contested terrain. The space is imbued with processes of silencing and foregrounding, of contestations and complementarities. This dialogical space is one which attends to how social justice considerations are being developed, how rituals of the past are being contested, and how doctoral education is allowing the possibility of new equitable arrangements. The aim in this model is to be disruptive of inequities. The above depictions of the models are explored as a theoretical heuristic to reflect on the kinds of models that ought to characterise the emerging and developing democratic space of post-apartheid South Africa. Nevertheless, in practice, it is more than likely that permutations of these models occur at different points in time, even in the same study. Supervisors might also shift their supervisory stance to achieve contextualised and situated goals.

The Cohort Model of Supervision

The cohort model of supervision, as used within my institution, is a combination of one-on-one models with variations of theoretical approaches as discussed above. Instead of only assigning doctoral students to one supervisor, students are assembled in a team of students with a team of supervisors. The cohort acts as a collaborative community of practice (Maistry, Samuel & Reddy 2021). In this team cohort, the students are exposed to a variety of different voices and openings and models of how to approach their research study.

It is not accurate to interpret a cohort model of supervisors as simply the assemblage of students and supervisors in groups to report on their work in progress. Instead, the cohort is expected to act as a collective, collaborative network where troubling assumptions, habits, rituals and routines are exposed, analysed and critiqued. The responsibility for the co-ordination of the overall

programme is usually conducted by a senior academic staff member who responds to the cohort group's needs at different points in their study. Such a co-ordinator, when designing the programme, does arrive at the curriculum design in an *a priori* preordained fashion but draws the cohort unfolding to reflect the unique stages or phases of the students' cohort group as well as the specific needs of the students at a moment in time (Maistry, Samuel & Reddy 2021). These input sessions are usually directed by the pool of supervisors who are a permanent feature of the cohort model. However, visiting guest speakers are drawn into the programme. Such speakers may originate from within the disciplinary interests of the students, or from outside the discipline, and even outside the institution itself. Unlike one-on-one supervisory sessions, not all areas of the cohort input sessions are fine-tuned to only the individual topics of the students; they are directed organically towards a range of interests.

Increasingly, as the confidence in the model of exchanging multiple vantage points is explored, past graduates of the cohort programme are brought in to lead what is considered the plenary session of a weekend programme. Such sessions share personal experiences among peer students within the collective cohort group. These graduating students sometimes continue to serve the cohort as facilitators of breakaway groups, rendering specific input about topics and approaches that they have previously used and responding to the needs of students. This model thus consists of a range of different models of supervision simultaneously: *one-on-one* supervision (where much of the administrative responsibilities of doctoral studies⁸ are finalised); a *study team* approach of collective supervisors, as well as *peer supervision* from past graduates and present student colleagues.

The programme is organised in a way that the breakaway sessions are chaired by the students themselves. Sustainable combinations of supervisors are assigned to breakaway groups to activate the reflection. Usually, breakaway supervisors stay with the students in their group from the time of commencement of the study to its end, providing developmental scaffolding throughout the study⁹. Students serve as scribes of each other's presentations and comments offered in the session. It is not possible to rid such a breakaway

⁸ These include the registration, proposal defence applications, ethical clearance applications, progress reporting, intention to submit, examination and graduation procedures.

⁹ Not all breakaway facilitators are specialists in the field of the students' topics. Nor are the facilitators necessarily the supervisors of the students.

session from the vagaries of power that emerge in relation to the experience, age, reputation or personalities of both the supervisors and the students. Ideally, supervisors are restricted from being defensive about their own students' presentations, and the student chair has the right not to invite their commentary.

Permutations of the Cohort Model

Since its beginnings in the late 1990s (Samuel & Vithal 2011), the cohort model has morphed to proliferate a range of different typologies of cohorts. Originally, the cohort curriculum was designed around cognate groups of students across *three phases*: research proposal writing, fieldwork and analysis/reporting writing. Over time, alternative combinations of students have been assembled around those who share a common methodological interest (e.g., action research, curriculum policy studies research). These spiral groups have originated from the founding model but are now led by cohort graduates who themselves have started their own cohort models based on a range of varied models. Each permutation establishes how frequently they meet, the length of their meetings, and the specifically targeted roles and responsibilities for participating members. The varied budgets available to run such a programme vary, and the co-ordination and management thereof take on unique characteristics. Further examples include *country-specific models*, which were established to activate groups of students who are studying in their own countries but linked by a memorandum of understanding between the founding institutional home and the collaborating international institution. *Inter-disciplinary* models have also been experimented with. These include groups of supervisors who have chosen to work in an intersectional way, promoting the fluid interchange across previously bounded disciplines. Some cohort postgraduate models have assembled students in combinations of *honours, masters and doctoral students* as a single collective. Some supervisors have chosen to work with only their own students in a *supervisor-cohort*. Some supervisors have activated cohorts of students that span across *different institutions in a national* programme.

These permutations of possibilities for cohort design have led to a range of cohorts as depicted in Figure 2 below.

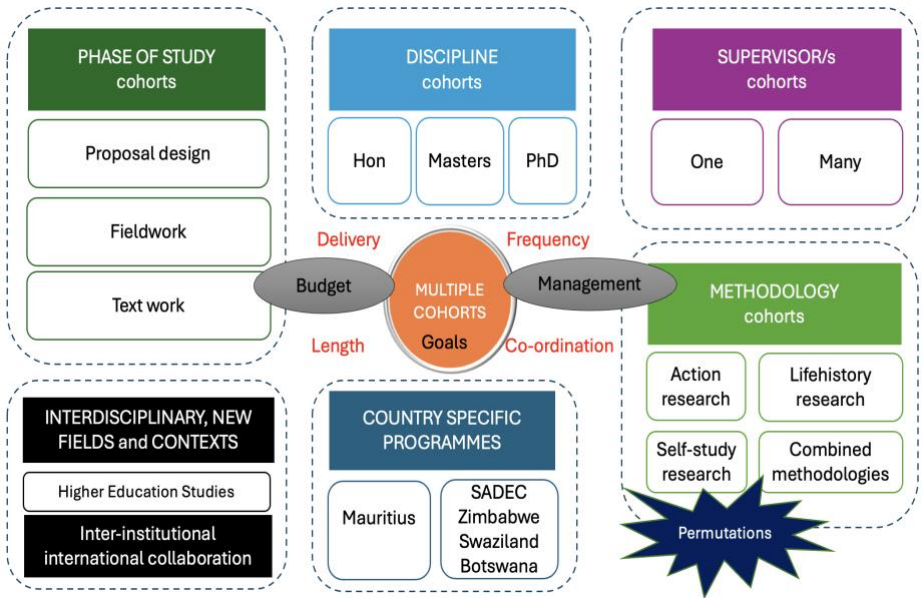


Figure 2: A range of cohort models of supervision of doctoral education (Source: Author's own.)

The effect of this cohort model over the last twenty years or more has addressed what was a perceived shortage of supervisory capacity at this one institution. By altering the model of supervision and the goals of the supervisory process, a range of possible combinations are activated. Many more students are capable of being enrolled and supported by the multiple cohorts available. Students are supported to develop interdisciplinary scholarship, learn how to work in a community of scholars and above all, learn not only how to be supervised but also glean the ingredients for being prospective supervisors working with diverse students and topics. Students are also indirectly learning the potential critiques they are likely to receive during the examinations of their theses; they are learning how to coordinate and manage research meetings, and plan projects drawn from a range of peer examples. They become exposed to a range of disciplines other than only their own study, its theoretical framing and its methodology.

The model is also used as a form of building novice supervisors' supervisory capacities. Consciously, the programme design assembled both senior and more experienced supervisors with novice and oftentimes innovative

colleagues as a form of peer mentorship and capacity building in supervisory practice. When assembled into the cohort team, novice supervisors are exposed to how other seasoned academics respond to their own students. Such ‘novices’ also bring into their cohort group their own recent research studies, showing other prospective students what the cutting-edge discourses are in the specific field. The cohort space has also become a dissemination space for the novice to consolidate and share their emerging scholarship. We argue elsewhere that we need to design doctoral education for creative serendipitous accidents, allowing the possibility for new insights to collide in creative and imaginative ways (Maistry, Samuel & Reddy 2021).

This cohort model of doctoral supervision draws inspiration from the complexities and pathologies of memory-making. We do not remember alone, and we reimagine new possibilities by exploring a range of options that are inherently contradictory, multifaceted and non-linear. These complexities are not a problem but a resource. We are rooted in the realities of our present circumstances and should not capitulate to the mantras of *amnesia*, *fantasia* and *solitaria*. Additionally, we are not obsessed with preserving an *inertia* remaining only in how our present has been determined by the past. To disrupt our routines and habits, creative and critical reflexivity is needed. More dynamic and respectful curriculum space attends specifically to the democratic sharing of diverse readings of the social context. Since memory work has the potential both to challenge and perpetuate the legacies of the past, one must adopt a curriculum space that consciously attends to the matters of injustices and inequities

New knowledge contributions within postgraduate education spaces ought to serve not just selfish personal interests but also the wider interests of the social system within which one operates. Memory, education and transformation are thus intricately entangled, and our supervision spaces should celebrate rather than curtail contestation, fluidity, flexibility, and consciously remember with prospective exploration for a future rather than merely reinforce the rituals of the past.

Concluding Thoughts: Transformative Supervision through Collective Memory-making

This chapter has argued that transformative postgraduate supervision requires a fundamental reconceptualisation of curriculum design grounded in the principles of memory work. The theoretical exploration presented here demonstrates

how the interconnections between memory-making, time, and relationality can serve as foundational principles for reimagining doctoral supervision beyond the pathological constraints that perpetuate apartheid legacies in South African higher education.

The relationship between Section One's memory work framework and Section Two's cohort model of supervision is fundamentally symbiotic. Section One's elaboration of productive memory-making, with its emphasis on non-linear temporality, contested dialogical engagement, and the transformation of pedagogo-pathologies, provides the theoretical foundation upon which the cohort model operates. The cohort model, as described in Section Two, exemplifies memory work principles in practice: students and supervisors engage in collective remembering that draws from multiple perspectives, challenges habituated hierarchical routines, and creates spaces for serendipitous encounters that generate new knowledge possibilities.

The theoretical argument presented here suggests that curriculum design for transformative postgraduate supervision must move beyond *chronos*-driven performativity measures toward *kairos*-oriented relational experiences. The cohort model demonstrates how memory work principles can be activated through curriculum design that values contestation over compliance, multiplicity over singularity, and democratic engagement over hierarchical apprenticeship. Where traditional supervision models risk perpetuating amnesia, fantasia, solitaria, inertia, and nostalgia, the cohort model's emphasis on collective memory-making disrupts these pathologies through its inherent commitment to diverse perspectives and critical dialogue.

The implications of this argument for future postgraduate education are significant. First, institutions must recognise that curriculum design is not merely about administrative arrangements but about creating transformative learning spaces that challenge existing power relations. Second, the cohort model suggests that supervisory capacity building should move beyond individual expertise development toward collective, collaborative approaches that democratise knowledge production. Third, the integration of memory work principles into curriculum design offers a distinctly collaborative approach to postgraduate education that resists deficit narratives while promoting indigeneous knowledge systems and methodologies.

However, this theoretical exploration in this chapter has limitations that must be acknowledged. The argument relies primarily on conceptual frameworks and limited direct empirical evidence from cohort model implementations. Previous studies documented in Samuel and Mariaye (2023) already

detail such more empirical work that suggests that deep transformation is activated by programmes, people and perspectives that foreground the complexity of postgraduate education in, by and for Africa. They outline that such wide-reaching efforts span beyond parochial redefinitions and include the need to work in interdisciplinary, cross-departmental, inter-institutional, national, continental and transnational contexts.

Nevertheless, more targeted future research should include comprehensive evaluations of the cohort model outcomes themselves, comparative studies across different institutional contexts, and longitudinal analyses of graduate impact on broader transformation goals. These should include both empirical and qualitative theoretical explorations of alternative postgraduate curriculum design and supervisory models, and their social influence. Additionally, research is needed to examine how memory work principles can be adapted across different disciplinary contexts and cultural settings. For example, some disciplines are fundamentally directed paradigmatically to profess the quest for certainty, and promoting a disruptive agenda might destabilise, foundationally, their axiomatic assumptions about their knowledge enterprise. Some cultures promote constitutively the respect for and deference to authorities; challenging this relationality within the educational space might counteract their normative expectations. This chapter has already linked memory work as capable of activating systemic transformation of institutional curricular relations yet acknowledges paradoxically that our memory-making pathologically can be appropriated to stall deep transformation. Studies in the future about memory work and its curricular potential would be advised to differentiate when memory-making is either affirmatory or conservative, or paradoxically both. However, one should caution against the prospective studies from simplistically equating our ways of knowing about the successes of postgraduate studies curriculum design only in efficiency and rationalistic measures.

The chapter concludes by recognising that transformative postgraduate supervision represents part of South Africa's 'unfinished revolutions'. The memory work framework presented here offers one pathway toward engaging these forever revolutions, but it requires conscious, sustained commitment to challenging the comfortable patterns of the past while remaining open to the creative possibilities of an uncertain future. The theoretical foundation established here provides a scaffold for continued experimentation and refinement of transformative curriculum design in postgraduate education.

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Advance Recommendations



Professor Ari Sitas: The central mission of the Charter for the Future of the Humanities and the Social Sciences (2011), was to increase the quality and quantity of post-graduate scholar-ship in South Africa, and to nurture the capacity to do so. I am heartened that this capacity for supervision and its challenges form the sub-stance of this book.

A critical assessment and reflection is more than timely and I am very pleased that this wide-ranging effort is being made available to our epistemic and scholarly communities. Its praxological and process focus is of remarkable importance.

08 February 2026.

Professor Ari Sitas is an Emeritus Professor at the University of Cape Town and an Honorary Professor at the University of Stellenbosch. He was the Chair of the National Institute for the Humanities and the Social Sciences until and including 2019. He has a PhD from the University of the Witwatersrand, 1984.



Professor Mogomme Alpheus Masoga: I vividly recall being invited to participate in one of the engagements in this series of indaba events, and I was truly impressed by the spirit behind it. Notably, this initiative comes at the right time, with the higher education space currently critically reflecting on and reviewing its history of postgraduate supervision. There is no doubt that postgraduate supervision cannot escape transformation, positionality, and politics.

Therefore, there is definitely a need to deepen this conversation, especially if we'd like to contribute to the current South African knowledge economy and beyond. Postgraduates should be grounded and sensible, with their perspectives informed by the context in which our communities find themselves. Gone are those days when we could remain comfortable even if we realised that there was a disjuncture between what we research and how we research; it should not be dislocated from the lives of the people. This has been a seriously contradictory consciousness, which needs to be corrected. It cannot be accepted that we remain comfortable with these contradictory consciousness tendencies that have been evident throughout the history of higher education. I am therefore quite pleased with this publication and wish to congratulate the editors and contributors for all their efforts in this important volume. We look forward to more such contributions to transform the space of higher education in South Africa and beyond.

Professor Mogomme Alpheus Masoga is Dean and Professor, The Humanities Faculty, University of the Free State, National Institute of the Humanities and Social Sciences (NIHSS) Board Chairperson, and the South African BRICS Think Tank (SABTT) Chairperson. Prof. Masoga, also represents South Africa on the BRICS Think Tank Council (BTTC).



Professor Sybert Mutereko: This is an excellent and timely contribution to postgraduate education scholarship. The volume provides a practical and compelling demonstration that super-vision is not a linear, administrative process, but a dynamic, relational, and contextually embedded scholarly praxis.

It speaks directly to the evolving nature of postgraduate supervision in our institutions and offers thoughtful, evidence-based insights that will benefit both emerging and experienced supervisors.

What distinguishes this book is its rootedness in African epistemic realities

and its firm positioning of postgraduate supervision as central – rather than peripheral – to the academic project. The contributors compellingly demonstrate that Master’s and PhD supervision is not merely a procedural requirement, but a transformative scholarly praxis through which new, contextually relevant knowledge is generated from, by, and with our communities. In doing so, the volume powerfully reframes supervision as leadership, accompaniment, collaboration, and ethical responsibility.

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