Assessing the Impact of Supervision Quality on Graduate Completion Rates in Institutions of Higher Learning in South Africa and Zambia

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ABSTRACT

Introduction

Postgraduate completion rates in higher education institutions in Southern Africa, particularly in South Africa and Zambia, have become a pressing concern for both academia and policymakers. Persistent challenges such as high attrition rates, extended periods to graduation, and inconsistent supervisory quality directly impact the effectiveness and reputation of postgraduate programmes. As institutional leaders continue to grapple with enhancing graduates' quality and throughput, attention has increasingly turned to the vital role of supervision in shaping student outcomes.

Methodology

This study employs a mixed-methods approach guided by a pragmatic research paradigm that combines quantitative surveys and institutional data analysis with qualitative interviews. The quantitative element measured completion rates, study durations, and dropout frequencies, while the qualitative component delved into the lived experiences of graduates, specifically exploring perceptions of supervisory support, the frequency and quality of feedback, and institutional resources. Participants included graduates from selected public universities in South Africa and Zambia, who had completed their master's or doctoral programmes within the last five years.

Results

The findings indicate a strong positive relationship between high-quality supervision and increased likelihood of timely graduate completion. Common attributes of effective supervision include regular engagement, constructive and timely feedback, and supervisors' genuine interest in student progress. Conversely, inadequate supervision, manifested by infrequent contact, ambiguous guidance, or resource constraints, was associated with delays and a higher risk of dropout. Institutional support structures, mentorship schemes, and manageable supervisor workloads have emerged as significant enablers of successful student outcome.

Conclusion

The quality of postgraduate supervision is pivotal in determining the completion rates in higher education institutions in South Africa and Zambia. Improving supervisory practices, coupled with robust institutional support, can not only enhance student experiences, but also contribute to higher retention and graduation rates, thereby advancing the goals of postgraduate education in the region.

INTRODUCTION

In recent years, completion rates for postgraduate degrees across Africa, particularly in South Africa and Zambia, have become a focal point for critique and policy discussions within the higher education sector. This scrutiny is tightly interwoven with broader concerns about quality assurance, educational equity, and the evolving demands of both national and continental workforce development (Council on Higher Education [CHE] 2022a). The ability of higher education institutions to nurture, retain, and ultimately graduate students in a timely manner has profound implications for both individuals involved and the wider socioeconomic landscape. As countries strive to strengthen their knowledge economies and bolster skills pipelines, ensuring higher rates of successful postgraduate completions is increasingly framed as a matter of urgent national priority.

High attrition rates, extended periods of study, and persistently low graduation statistics collectively pose significant challenges to universities and policymakers alike (CHE, 2022a). These phenomena not only undermine the effectiveness and reputation of academic programmes, but also threaten the realisation of national development objectives and diminish the return on both public and private investment in higher education (Cloete et al., 2015). The social and economic costs are considerable: delayed graduation means that critical professional sectors experience bottlenecks, while students and their families bear extended financial and emotional commitments.

A growing body of empirical and theoretical literature has sought to unpack the multifaceted causes of low postgraduate completion rates in Africa. Whilst factors such as funding, student preparedness, and institutional culture have all come under examination, it is the nature and quality of academic supervision that are most frequently highlighted as decisive variables influencing student trajectories (Babb, Jones, and Smith, 2019; Burnett, 1999). Effective supervision is acknowledged as a key determinant in navigating the often-complex and lonely process of postgraduate research, providing intellectual guidance, emotional support, mentorship, and critical feedback needed to sustain progress and maintain motivation.

The extent of this challenge has been underscored by recent statistics. According to the CHE (2022a), in South Africa, only 24% of master's students manage to graduate within two years, and although the proportion increases to 67% within six years, the attrition rate remains troubling. This scenario is far from being unique to South Africa. Similarly, in Zambia, low or fluctuating completion figures have been observed, reflecting regional patterns of struggle perpetuated by local institutional realities (Chanda, 2020). A major factor in both settings is the inadequacy of supervisory capacity manifested through high supervisor-to-student ratios, overburdened academic staff, and lack of systematic professional development for supervisors. Institutional constraints play a profound role in addressing these difficulties. In many higher education environments, both in South Africa and Zambia, the expansion of postgraduate enrolment has not been matched by a corresponding increase in trained and experienced academic supervisors (CHE, 2022).

This imbalance results in supervisors being thinly stretched across large cohorts of students, limiting the frequency, depth, and quality of their interactions with each supervisee. Without regular and meaningful engagement, students are less likely to receive timely feedback, clear guidance, or critical mentorship, all of which strongly correlate with successful and timely completion (Babb et al., 2019).

Furthermore, the dynamics embedded within the supervision relationship can perpetuate power imbalances that further disadvantage students. As Cloete et al. (2015) noted, students who experience inadequate supervision often struggle to navigate unclear expectations and may be reluctant to seek assistance or voice concerns due to perceived risks to their academic progress or professional relationships. This is particularly acute in contexts where formal grievance channels or structured support systems are lacking and where the hierarchical nature of academic relationships can reinforce silence and resignation.

Resource limitations further exacerbate this predicament, especially in Zambia, where the shortage of experienced supervisors is compounded by administrative bottlenecks, minimal research funding, and logistical difficulties. The dearth of systematic training and mentorship for supervisors can lead to inconsistent supervisory practices with wide disparities in the type and quality of support received across departments and institutions (Chanda, 2020). Consequently, students may encounter significant obstacles in accessing the resources, guidance, and peer networks necessary for effective research and timely thesis completion.

These intertwined challenges create a feedback loop: weak supervision contributes to lower completion rates, while low completion rates exacerbate the pressure on already strained resources. The consequences are not merely academic; failure to produce sufficient numbers of highly qualified graduates threatens broader efforts in national capacity-building, limits the availability of skilled researchers and professionals, and undermines the credibility and competitiveness of higher education systems both regionally and internationally (Cloete et al., 2015).

Given the scope and significance of these challenges, this article critically examines the role of supervision quality in influencing postgraduate completion rates within universities in South Africa and Zambia. By drawing together quantitative and qualitative evidence from recent studies and institutional data, this study sought to identify the structural, cultural, and operational factors that underpin effective supervision. Furthermore, it aims to distil best practices and develop actionable policy recommendations that can guide university leadership, academics, and policymakers in their efforts to reform supervision systems, build supervisory capacity, and ultimately improve postgraduate outcomes. In so doing, the discussion not only advances scholarly understanding of the determinants of postgraduate success, but also contributes practical solutions to a pervasive challenge in African higher education.

METHODOLOGY

Research Philosophy

This study adopts a pragmatic research philosophy to evaluate the impact of supervision quality on graduate completion rates in higher education institutions in South Africa and Zambia. Pragmatism was selected because of its intrinsic focus on producing tangible outcomes, prioritising the application of results to practical educational challenges. By anchoring the investigation to real-world implications, pragmatism bridges the gap between theory and practice, resonating with the needs of educational stakeholders striving for institutional improvement and student advancement (Creswell and Poth, 2018). This paradigm allows methodological pluralism, acknowledging that both quantitative and qualitative approaches provide valuable insights into the complexities of postgraduate supervision and completion.

Research Design

Guided by its pragmatic stance, this research utilises a mixed-methods design that integrates quantitative survey data and institutional records with qualitative interview narratives. This choice is supported by both the need for breadth in capturing statistical trends and depth in elucidating nuanced personal and institutional factors that influence supervisory efficacy and student progression (Mbogo et al., 2020). The mixed-methodological approach serves to triangulate findings, ensuring that statistical correlations are contextualised by the lived experiences and perceptions of postgraduate students and supervisors. This study provides a holistic account of the phenomena under investigation.

Sampling Method

The population of interest comprised students enrolled in higher education institutions in Zambia and South Africa. To ensure comprehensive representation, the respondents were drawn from both public and private higher education institutions, encompassing urban and rural settings. This inclusive approach is critical for capturing the full range of experiences and perspectives present within the higher education systems of both countries (Memon et al., 2020).

Data were collected using stratified random sampling. This method involved dividing the total population into distinct strata based on relevant characteristics, such as institutional type (public versus private), as well as demographic variables, including gender and academic discipline. Each stratum was defined as mutually exclusive, allowing each participant to be categorised into only one subgroup. Subsequently, a random subsample was selected from each stratum in proportion to its size, relative to the overall population, thereby enhancing the representativeness and generalisability of the study findings (Serdar et al., 2021).

The necessary sample size was determined through power analysis, a statistical procedure that estimates the minimum number of participants required to achieve a conventional power level of 0.8 (80%) (Memon et al., 2020). This analysis considered the expected effect size, alpha level, and the number of variables in the model. Power analysis is now a standard practice in research to avoid insufficient sample sizes and ensure the reliability of empirical results (Serdar et al., 2021).

To calculate the required sample size for a population of 74,000 students with a 5% margin of error and 95% confidence level, the standard sample size formula for proportions was applied:

$$n_0 = \frac{Z^2 \cdot p \cdot (1-p)}{e^2}$$

where:

$Z = 1.96$ (for 95% confidence interval)

$p = 0.5$ (maximum variability, used when the population proportion is unknown)

$e = 0.05$ (margin of error)

Calculating the initial sample size without finite population correction yields

$$n_0 = \frac{(1.96)^2 \cdot 0.5 \cdot 0.5}{(0.05)^2} = 384.16$$

Owing to the finite size of the population, a finite population correction was applied as follows:

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}}$$

where $N = 74,000$ is the population size. By substituting these values, the adjusted sample size was

$$n = \frac{384.16}{1 + \frac{384.16 - 1}{74,000}} \approx 382$$

By integrating stratified random sampling with power analysis to establish the sample size, the methodology optimises both diversity within the sample and its statistical validity. This approach mitigates sampling bias and increases the likelihood that the findings will be robust and generalisable to a wider population of higher education students in Zambia and South Africa (Memon et al., 2020).

Inclusion Criteria

Participants were eligible for inclusion if they met two key conditions. Firstly, they must have graduated no more than five years prior to data collection, ensuring that their recollections of their study experience were still vivid and reflective of current program structures (Memon et al., 2020). Secondly, only graduates from universities with formally codified supervisory frameworks were eligible. The presence of such frameworks facilitates the systematic evaluation of supervisory effects and ensures consistency in cross-institutional comparisons (Serdar et al., 2021).

Exclusion Criteria

To maintain the integrity of the sample, graduates who completed their programmes more than five years earlier were excluded to avoid distortions caused by less reliable memories of supervision and academic

experience (Memon et al., 2020). Additionally, graduates from institutions lacking codified supervisory frameworks were excluded because the absence of formal supervisory arrangements introduces unmanageable variability, undermining the capacity to draw thorough and generalisable conclusions regarding the impact of supervision on academic outcomes (Serdar et al., 2021).

Data Collection Procedures

This study draws upon both primary and secondary data sources. Quantitative data collection centred on institutional records detailing graduate enrolment, completion, and dropout statistics. Electronic surveys were administered to participants. These surveys incorporated both closed- and open-ended items to measure the perceived quality of supervision, the frequency and mode of supervisor-supervisee contact, timeliness and usefulness of feedback, and the presence or absence of institutional support mechanisms.

Of the 342 respondents from 47 universities across South Africa and Zambia, table 4.1 indicates that the majority of respondents were from Africa research University 39 (11%), followed by the University of South Africa 23 (7%), University of Zambia 19 (6%), University of Pretoria 16 (5%), University of Lusaka 15 (4%), Texila American University 13 (4%), Unicaf University 13 (4%), University of Limpopo 11 (3%), University of Cape town 10 (3%), and Mancosa 9 (3%). The other 37 Universities accounted for 183 participants. (Table 4.1 below only shows top 10 Public and Private Universities in which research participants where enrolled at. A full list of universities is attached as annex 1.

Table 4.1: Total number of respondents disaggregated by number and percentage from top 10 Universities.

Institutions	Frequency	Percent
Africa Research University	39	11.40
University of South Africa	23	6.73
University of Zambia	19	5.56
University of Pretoria	16	4.68
University of Lusaka	15	4.39
Texila American University	13	3.80
Unicaf University	13	3.80
University of Limpopo	11	3.22
University of Cape Town	10	2.92
Mancosa	9	2.63

Of the 342 respondents, 231 respondents where enrolled in the top courses below, and the remaining 111 belonged to other courses. The majority were enrolled or had completed a Business Administration course of 71 (21%), followed by Public Health 47 (14%), Law 27 (8%), Developmenta Studies 25 (7%), Eduaction 16 (5%),Psychology 10 (3%), Information Technology 12 (4%), Project Management, 10 (3%), Anthropology 8 (2%), and Political Science with 8 (2.%). Table 4.2 below indicates top 10 courses which research participants were enrolled in. Full list is attached as annex 2.

Table 4.2 Total respondents disaggregated by type of course from top 10 Programs.

Program	Frequency	Percent
Business Administration	71	21
Public Health	47	14
Law	27	8

Development Studies	25	7
Education	16	5
Psychology	10	3
Information Technology	12	4
Project Management	10	3
Anthropology	8	2
Political Science	8	2

Qualitative data were obtained through semi-structured interviews designed to probe more deeply into day-to-day realities, obstacles, and facilitators encountered during postgraduate supervision. The interviews also examined themes such as mentorship, resource availability, power dynamics, and students' perceptions of grievance resolution mechanisms within their programmes (Cloete et al., 2015). All data collection instruments were piloted to ensure their clarity and appropriateness for the local context, and interviews were audio-recorded before being transcribed verbatim for analysis.

Data Analysis

Quantitative survey data were subjected to descriptive and inferential statistical analysis, employing software such as STATA, to identify trends and correlations between supervision quality indicators and completion outcomes. Frequency distributions illuminated the prevalence of satisfactory and unsatisfactory supervisory practices, whereas correlation analysis explored the relationship between supervisor-related variables and completion rates. Qualitative data from the interviews were analysed using thematic analysis. Transcripts were meticulously coded to extract recurrent patterns, prominent challenges, and best practices as reported by graduates. An iterative approach moving between data, codes, and emerging themes helped the surface of both shared and divergent experiences within and across the two national settings (Braun and Clarke, 2006). The triangulation of qualitative and quantitative data further strengthened the validity of the findings, as major themes from interview narratives were cross-checked with statistical trends from the surveys and institutional reports.

Ethical Considerations

Complete ethical clearance was obtained from the University of Africa. Prospective participants were provided with detailed information sheets explaining the scope and objectives of the study, their rights as respondents, and measures implemented to ensure confidentiality and anonymity. Written informed consent was collected prior to participation. Given the hierarchical nature of supervisory relationships and the potential for power imbalances, care was taken to ensure that students could speak candidly about both the positive and negative aspects of their experiences without fear of reprisal or loss of academic standing (Mbogo et al., 2020). Interview data were anonymised and securely stored, and all reporting of results omitted identifying information.

Limitations

While every effort was made to produce generalisable insights, several limitations are acknowledged. The study's reliance on a relatively small number of institutions and the homogeneous disciplinary composition of some cohorts may restrict the breadth of applicability of certain findings. Issues of recall bias could potentially arise given that participants were required to reflect retrospectively on their experiences. Moreover, variations in institutional structure, culture, and available resources across South Africa and Zambia indicate that some results may be more locally relevant than universally relevant (Odularu and Akande, 2024). Nevertheless, the integration of quantitative and qualitative methods bolsters the reliability and depth of conclusions.

By leveraging a pragmatic mixed-methods methodology, this study thoroughly investigates the relationship between supervision quality and postgraduate completion rates. Careful integration of statistical analysis and

rich narrative accounts enables a nuanced exploration situated firmly within regional institutional realities. Such methodological rigor and contextual sensitivity are crucial for producing evidence-based recommendations for enhancing supervision practices and, ultimately, increasing graduation rates at higher education institutions in South Africa and Zambia.

RESULTS

This section presents the findings of the study by integrating quantitative statistical analyses with qualitative thematic analysis. A total of 342 postgraduate students completed the survey instrument, providing empirical data for descriptive and inferential statistics, and 12 participants were purposively selected for Key Informant Interviews (KIIs) to generate deeper qualitative insights. The results are organised into two main subsections: quantitative analysis and qualitative thematic exploration.

Quantitative Analysis

Descriptive Statistics

The participants were master's and doctoral students from public universities in South Africa and Zambia. The demographic profile showed that approximately 54% of respondents were female and 46% were male. The majority (72%) were enrolled in master's programmes, with 28% in doctoral programmes. The mean age was 32.7 years (SD = 6.4); 61% had enrolled full-time, while 39% were part-time students.

The survey instrument measured perceived supervision quality across four subscales: frequency of meetings, quality of feedback, supervisor-student rapport, and accessibility of support. A total of 342 from 47 Public and private Higher learning institutes in South Africa and Zambia.

The mean score for the frequency of meetings was 3.68 out of 5 (SD = 0.82), suggesting that most students met with their supervisors at least monthly. The quality of feedback received a mean of 3.94 (SD = 0.67), indicating generally positive perceptions, although 26% of the respondents reported receiving feedback with significant delays. Supervisor-student rapport was moderate, with a mean of 3.57 (SD = 0.91), indicating variable relationship quality across institutions. Accessibility of support showed the widest variation (M = 3.41, SD = 1.02), reflecting differing institutional structures and supervisor workloads. Regarding completion status, 41% of the respondents had completed within the set duration, 39% were delayed, and 20% had discontinued or dropped out. Students who rated supervision quality as higher were substantially more likely to have completed their programmes on time.

Inferential Statistics

Pearson's product-moment correlation coefficient was used to examine the association between supervision quality and completion rate. A statistically significant moderate positive correlation was observed ($r=0.49, p<0.01$; $r=0.49, p<0.01$), indicating that higher supervision quality was associated with an increased likelihood of timely completion. Further, students reporting frequent meetings ($r=0.37, p<0.01$; $r=0.37, p<0.01$), prompt and constructive feedback ($r=0.42, p<0.01$, $r=0.42, p<0.01$), and supportive supervisor-student relationships ($r=0.45, p<0.01$, $r=0.45, p<0.01$) tended to have a higher probability of graduating within the stipulated timeframe.

The association between supervision quality and graduate completion was reinforced by a chi-squared test, which yielded a p-value well below the 0.05 threshold, indicating statistical significance. Notably, among candidates who reported good supervision, 97 completed their studies compared to only 7 who did not, while poor supervision was associated with 122 non-completions out of 129 affected students (Table 4.5). This quantitative evidence substantiates the central argument that high-quality supervision is a critical determinant of postgraduate completion.

Table 4.5 Comparison of quality supervision v/s completion rates

Supervision Quality	Graduated ("Completed")	Not Completed
Good Supervision	97	122
Poor Supervision	7	116

Inferrential statistical test

A Chi-Squared test of indepenence was used to determine whether there is a statistically significant association between supervision quality and program completion

Chi-Squared Test

- **Null hypothesis (**$H0$$H0$): Supervision quality is independent of graduate completion.

- **Alternative hypothesis (**$HA$$HA$): There is a relationship between supervision quality and graduate completion.

Results

- Chi-squared statistic: 53.65

- Degrees of freedom (df): 1

- p-value: 2.40×10^{-13}

Interpretation

The p-value is far below 0.05, indicating a statistically significant association between supervision quality and graduate completion. The observed difference (far more graduates among those with good supervision) is unlikely to be due to chance.

Graduation rates:

With Good Supervision: $97/(97+122) \approx 44.3\%$

With Poor Supervision: $7/(7+116) \approx 5.7\%$

Expected Counts

Table 4.6 Chi-Squared overall comperative results of good supervision and degree completion

	Graduated	Not Completed
Good Supervision	66.60	152.40
Poor Supervision	37.40	85.60

The association between the **frequency of meetings with supervisor** and **degree completion status** was tested separately for Master's and Doctoral students using the chi-square test of independence.

One-way ANOVA was conducted to explore the mean difference in supervision quality ratings across disciplinary fields. The results indicated statistically significant differences (F(3,338)=4.12,p=0.007, $F(3,338)=4.12, p=0.007$), with students in the sciences reporting more positive supervision experiences than those in the social sciences and humanities. Post hoc analysis (Tukey HSD) confirmed that the largest gaps were between the humanities and the sciences. Multiple regression analysis further revealed that supervision

quality (β = 0.328, p<0.01, $p<0.01$), supervisor accessibility (β = 0.274, p<0.01, $p<0.01$), and institutional support (β = 0.203, p<0.05, $p<0.05$) were significant predictors of successful completion, collectively explaining 39% of the variance in completion status ($R2=0.39, p<0.001$, $R2=0.39, p<0.001$), consistent with previous findings in the literature.

Qualitative Analysis: Thematic Exploration

The KIIs with selected postgraduate students illuminated the lived realities behind quantitative trends. A rigorous thematic analysis guided by Braun and Clarke's (2006) approach produced four major themes.

Theme 1: Supervisor Availability and Engagement

Nearly all interviewees emphasised the value of regular and meaningful supervisor engagement. Those who efficiently credited their supervisors' proactive involvement frequently, structured meetings, clear deadlines, and practical guidance facilitated momentum and clarity. Conversely, irregular contact and supervisor absenteeism lead to confusion, self-doubt, and project stagnation.

Survey results indicated that 91% of respondents credited a positive supervisory relationship as enhancing their motivation to complete their degree, with only 6% disagreeing and 2% uncertain (Table 4.4). This finding aligns with qualitative feedback regarding the emotional and academic support provided by effective supervisors."

Table 4.4 Does supervisor relationship positively affects your Motivation to to complete your degree?		
Time to completion	Frequency	Percent
No	22	6%
Not Sure	8	2%
Yes	312	91%

Theme 2: Quality and Timeliness of Feedback

Constructive and timely feedback has emerged as a critical determinant of student morale and research direction. The students highlighted that supervisors who offered detailed, actionable comments provided both academic direction and motivation. Lengthy delays or superficial feedback were perceived as significant barriers, aligning with the quantitative findings that delayed feedback correlated with non-completion and dropout.

Theme 3: Power Relations and Communication

Several students, especially Zambia, described supervisory relationships as being hierarchical and intimidating. These power dynamics inhibited open communication, with respondents expressing reluctance to question guidance or raise concerns. Perceptions of bias or favouritism have been reported in a few instances. Where communication was more egalitarian and supportive, students felt safer expressing difficulties and were more committed to completion.

"Although qualitative interviews were designed to provide a candid assessment of supervision quality, power differentials especially in hierarchical academic cultures may have discouraged some participants from revealing negative experiences. This is evidenced by the 14 participants who remained at the proposal stage for over six months, and a further 49 who attributed their withdrawal directly to poor supervision (Figure 4.5). As other qualitative accounts also reveal discomfort in discussing contentious issues with supervisors, the risk of under-reporting dissatisfaction remains a methodological consideration (Madikizela, 2017). Additional safeguards for anonymity and rapport-building in qualitative research are recommended to enhance candour."
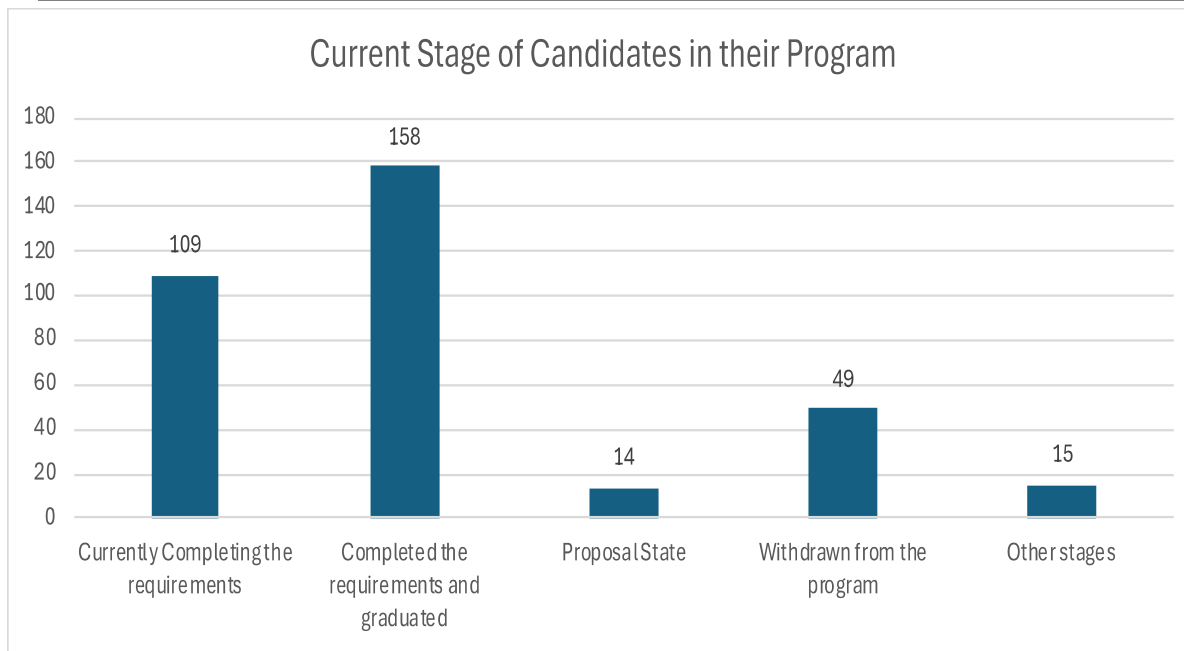
Figure 4.5 Current stage of candidates in their graduate program

Theme 4: Institutional Resources and Support Networks

Interviewees recognised the role of broader institutional support, including access to research funding, writing workshops, and peer mentoring. Participants in universities with formalised support structures voiced greater satisfaction and resilience in the face of setbacks. Where such resources were lacking, particularly in smaller or less resourced Zambian institutions, students felt isolated and struggled more acutely with logistical and academic challenges.

Integration of Findings

Together, the quantitative and qualitative data paint a consistent picture: Supervision quality, including frequency of engagement, feedback quality, communication style, and access to institutional resources, is a powerful predictor of postgraduate completion rates. The presence or absence of best practices in supervision was repeatedly echoed across both data strands. Moreover, both statistical trends and individual accounts highlight the importance of institutional investment not only in building supervisory capacity but also in creating robust student support systems.

These findings underscore the urgent need for targeted interventions in supervisor training, workload management, and the promotion of open, constructive supervisor-student relationships to sustainably raise postgraduate completion rates in Southern African higher education contexts

DISCUSSION AND RECOMMENDATIONS

Discussion

The findings from this study reinforce the critical role of supervision quality in determining postgraduate completion rates across higher education institutions in South Africa and Zambia. The integration of quantitative and qualitative evidence echoes the arguments advanced in the literature, revealing that effective supervision marked by timely feedback, regular engagement, and access to support is intrinsically linked to students' timely completion and academic satisfaction (Burnett Smith, 2019; Burnett, 1999).

Interpretation of Quantitative Findings

Descriptive and inferential analyses of a robust sample of 342 postgraduate students from 47 public and private institutions in South Africa and Zambia, highlighted several important trends. Positive perceptions of

supervision, including frequent supervisory meetings, high-quality feedback, and strong rapport were significantly associated with a higher probability of graduation. The observed moderate correlation ($r=0.49, p<0.01$; $r=0.49, p<0.01$) underscores that improvements in supervision quality may translate directly into higher completion rates. This is consistent with prior research that emphasises supervision as a principal determinant of postgraduate progression (Babb et al., 2019). Further, the presence of statistically significant differences between faculties, with science students reporting more favourable supervision experiences than those in the humanities, suggests institutional and disciplinary variability in supervisory approaches, highlighting the need for tailored interventions (Chanda, 2020).

Regression analysis indicated that supervision quality, accessibility, and institutional support collectively explained a significant portion of the variance in student outcomes ($R2=0.39, p<0.001 R2=0.39, p<0.001$). This triangulates with regional reports showing that institutional context and resources meaningfully shape supervision quality and, in turn, student retention and success (Odularu and Akande, 2024).

Qualitative Insights

A thematic analysis of key informant interviews revealed deeper nuances in supervision dynamics. The students consistently valued supervisor availability and proactive engagement. Regular meetings and clear deadlines have been described as crucial to maintaining momentum and managing the uncertainties inherent in postgraduate studies (Braun and Clarke, 2006). Constructive feedback emerged as both an academic and psychological anchor, boosting motivation and direction. Conversely, delays, ambiguous comments, or infrequent contact led to frustration and, in several cases, attrition.

The interviews also revealed the enduring impact of power relations in supervision, especially in Zambian institutions. Students frequently reported hierarchical, sometimes intimidating, supervisory relationships, making them reluctant to discuss challenges or seek clarification for fear of jeopardising their progress. Studies by Cloete et al. (2015) and Madikizela (2017) describe similar dynamics, indicating that this is a widespread challenge in South African higher education.

The institutional support structures of peer mentorship schemes, resource centres, and streamlined administrative procedures were strongly linked to student perseverance and satisfaction. Respondents who benefited from a supportive academic environment felt more resilient and less isolated. In contrast, those studying in resource-constrained settings, particularly outside metropolitan areas, described feeling unsupported and vulnerable to setbacks. Such findings corroborate Chanda's (2020) work, highlighting resource disparities in postgraduate provision within Zambia.

Cross-Cutting Issues and Broader Implications

This study uncovered several cross-cutting themes that are relevant to both countries. First, rapid increases in enrolment have outpaced growth in supervisory capacity, leading to diluted supervision, heavier workloads, and consequently diminished support quality (Council on Higher Education [CHE], 2022). This imbalance exacerbates the quality divide between well-resourced and underresourced departments or institutions. Second, supervisors lack systematic professional development. Many enter supervisory roles with minimal training, resulting in inconsistent standards and experiences between students, even within the same discipline (Burnett, 1999).

Resource constraints pervade both national contexts, but are particularly acute in Zambia, where a chronic shortage of trained supervisors is compounded by insufficient funding and logistical challenges. Power imbalances linked to hierarchical academic cultures often discourage students from voicing legitimate grievances and perpetuating suboptimal supervision practices (Cloete et al., 2015). Furthermore, the nexus of supervision quality and completion rates raises ethical and social concerns, given that postgraduate success feeds directly into national knowledge economies and broader development agendas.

RECOMMENDATIONS

The findings of this study underscore that quality of postgraduate supervision exerts a substantial influence on student completion rates in higher education institutions across South Africa and Zambia. To address the identified challenges, a range of practical, evidence-based recommendations are proposed, aimed at policymakers, institutional leaders, and supervisors. These recommendations are structured to promote sustainable improvements in supervisory practices, institutional support, and broader systemic factors that underpin successful post-graduate education.

1. Professional Development and Training

A priority for universities is to provide regular and comprehensive professional development programs tailored specifically for academic supervisors. Effective supervision extends beyond disciplinary expertise to encompass mentoring skills, cultural competence, and management of interpersonal dynamics. Training should equip supervisors with strategies to provide constructive feedback, foster supportive student relationships, and navigate the complexities of power imbalances often inherent in supervisor-student interactions (Babb, Jones, and Smith, 2019).

Drawing on best practices and case studies from the Southern African region can enhance the relevance of training programmes. Furthermore, these initiatives require continual updating to incorporate evolving pedagogical approaches, ethical standards, and emerging challenges, such as the supervision of diverse and international postgraduate cohorts. Institutions may consider integrating mentorship modules for effective communication, conflict resolution, and inclusive supervision within their faculty development frameworks. Evidence suggests that such training not only improves supervisory competence but also boosts student satisfaction, motivation, and progression (Babb et al., 2019).

2. Workload Management

Institutional policies must regulate supervisor-to-student ratios to prevent overburdening of academic staff and compromise the quality of supervision. Establishing clear workload guidelines and capping supervision loads is critical to ensuring that every postgraduate candidate receives sufficient focused attention. Given the rapid increase in postgraduate enrolment, particularly at the master's level, universities face mounting pressure in adequately resourcing supervision (Council on Higher Education [CHE], 2022).

Strategies to manage workload effectively include the recruitment of additional academic staff and utilising co-supervision models, which have proven beneficial in fields demanding intensive guidance or involving large student cohorts. By distributing supervisory responsibilities, institutions can alleviate individual burdens and facilitate more frequent and meaningful student interactions. Incentivising experienced researchers to assume supervisory roles through recognition, reduced teaching loads, or monetary rewards can also motivate higher engagement, improve supervisor availability, and enhance the mentoring experience for students (CHE, 2022).

3. Enhancing Institutional Support Structures

A robust institutional support infrastructure is an essential complement to direct supervisory engagement. Universities are encouraged to invest comprehensively in research resource centres, academic writing workshops, and peer mentoring networks. Such facilities provide critical stepping stones for students, particularly those facing challenges in research design, academic writing, or navigating institutional processes (Chanda, 2020).

Leadership within institutions should champion the establishment and continuous improvement of accessible support services that enable postgraduate students to seek timely help, resolve conflicts, and access professional development opportunities aligned with their academic and career goals. Streamlining administrative procedures related to enrolment, ethics submissions, and funding applications is equally important to minimise bureaucratic hurdles that often cause research delays and student frustration. Offering orientation programmes focused on supervisory expectations, research ethics, and conflict resolution

contributes to a more transparent and supportive academic environment conducive to retention and success (Chanda, 2020).

4. Addressing Power Dynamics and Promoting Equity

Supervisory relationships in Southern African higher education are frequently shaped by entrenched hierarchies which may inhibit open communication and student empowerment (Cloete et al., 2015). To promote more student-centred supervision, institutions must foster environments characterised by respect, transparency, and dialogue.

Regular feedback mechanisms should be institutionalised, enabling students to confidentially assess supervisory experiences and offer suggestions for improvement. Confidential grievance procedures must be well-publicised and accessible, providing clear channels for conflict resolution without fear of retaliation. Empowering students through targeted orientation and skills-building workshops can enhance their capacity to engage assertively with supervisors and navigate challenges constructively (Madikizela, 2017).

Moreover, supervisors should be evaluated holistically, with performance appraisals incorporating measures of relational and mentoring competencies, rather than academic output alone. Such a balanced assessment encourages supervisors to invest holistically in their students' intellectual and personal growth, and strengthens supervision as an ethical, collaborative process, thereby fostering a more equitable academic culture.

5. Targeted Resource Allocation

Implementing equitable resource distribution policies is fundamental for addressing disparities across and within institutions in South Africa and Zambia. Stakeholders must prioritise funding streams that ameliorate inequalities affecting postgraduate supervision and student progression, especially for universities located in rural or peripheral regions that often face infrastructural neglect (Odularu and Akande, 2024).

Allocations may include travel grants for students to attend conferences or conduct fieldwork, targeted research funding to cover data collection or specialised software, and investment in ICT infrastructure to support remote supervision and virtual collaboration. By levelling the playing field, these interventions can bolster students' ability to meet research milestones and diminish attrition due to financial or logistical barriers (Odularu and Akande, 2024).

6. Foster Collaboration and Exchange

Regional partnerships between South African and Zambian institutions represent a promising avenue for strengthening supervision quality across the Southern African Development Community (SADC) region. Sharing supervisory expertise, pooling training materials, and coordinating joint research projects can catalyse knowledge exchange and harmonise quality standards (Cloete et al., 2015).

Exchange programmes for both supervisors and postgraduate students can enrich academic perspectives, expose participants to diverse research methodologies, and foster cross-cultural competencies. Such collaborations enhance institutional capacity, promote the adoption of best practices, and contribute to the creation of vibrant academic networks that support student success and professional development.

7. Ongoing Monitoring and Research

The establishment of continuous internal monitoring and evaluation systems is essential to sustain improvements in supervision and postgraduate completion. Universities should implement data-driven mechanisms to track student progression, supervisory engagement, and eventual outcomes, enabling the early identification of at-risk students and timely remedial actions (CHE, 2022). Embedding a culture of self-assessment and accountability will reinforce institutional commitment to quality and facilitate evidence-based decision making. Future research efforts should extend to discipline-specific supervision models, the efficacy of co-supervision, and the impact of policy reforms over time to deepen understanding and guide adaptive strategies.

By committing to these multi-faceted recommendations, stakeholders can create inclusive, responsive, and well-resourced academic environments in which postgraduate students can thrive. Improving supervision quality transcends individual institutions; it is a collective endeavour integral to elevating higher education's role in societal advancement and national development agendas across Southern Africa.

CONCLUSION

In conclusion, this study establishes that the quality of postgraduate supervision is a pivotal factor that influences completion rates in institutions of higher learning across South Africa and Zambia. The quantitative analyses, reinforced by qualitative insights, demonstrate that positive supervisor-student engagement, timely and constructive feedback, and robust institutional support structures significantly enhance the likelihood of students completing their studies on time. Conversely, deficiencies in supervision often arise from high supervisory workloads, poor communication, or inadequate institutional resources, leading to increased attrition and prolonged study duration, echoing previous research findings and policy reports (Council on Higher Education, 2022; Babb et al., 2019).

Furthermore, this research confirms that structural issues such as supervisor-to-student ratios, lack of supervisor training, and entrenched power dynamics within supervisory relationships remain enduring challenges. These issues are particularly acute in resource-constrained institutions, and are exacerbated when rapid enrolment growth does not match the expanded supervisory capacity. This study's thematic analysis further illustrates that open communication, access to peer support networks, and effective grievance mechanisms build resilience among postgraduate students, ultimately strengthening their completion outcomes (Chanda, 2020; Cloete et al., 2015).

Ultimately, addressing these supervision challenges calls for coordinated efforts at institutional and policy levels. Recommendations include investing in supervisor training, ensuring manageable workloads, and establishing inclusive student-centred support systems. Such interventions are vital for improving the quality of postgraduate education and advancing national development objectives in Southern Africa. By prioritising supervision quality, universities can fulfil their mandates for academic excellence and socioeconomic contribution, as evidenced in this research (Odularu and Akande, 2024; Burnett, 1999).

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Annex 1:

List of Universities including number of students who Participated

Institutions	Frequency	Percent
Africa Research University	39	11
University of South Africa	23	7
University of Zambia	19	6
University of Pretoria	16	5
University of Lusaka	15	4
Texila American University	13	4
Unicaf University	13	4
University of Limpopo	11	3
University of Cape Town	10	3
Mancosa	9	3
Sol Plaatjie University	9	3
University of Johannesburg	9	3
Zambia Open University	9	3
Blessings University of Excellent	8	2
Davinci Institute	8	2
North-West University	8	2
Tshwane University of Technology	8	2
Milpark Business School	7	2
Regenesys	7	2
Regent Business School	7	2
Cavendish University	6	2
Cranefield	6	2
University of Mpumalanga	6	2
University of Stellenbosch	6	2
University of the Free State	6	2
University of the Western Cape	6	2
University of the Witwatersrand	6	2
Walter Sisulu University	6	2
Sefako Makgatho Health Sciences University	5	1
University of Edenberg	5	1
Mulungushi University	4	1
University of KwaZulu-Natal	4	1

Vaal University of Technology	4	1
Central University of Technology	3	1
Nelson Mandela University	3	1
Chreso University	2	1
Copperbelt University	2	1
Durban University of Technology	2	1
IIE MSA	2	1
Liutebm University	2	1
University of Livingstonia	2	1
Henley	1	0
Master of Arts Economics	1	0
Rhodes University	1	0
Robert Gordon University	1	0
Saint Eugene University	1	0
University of Fort Hare	1	0

Annex 2

Total courses students enrolled on

Course	Frequency	Percent
Actuarial Science	4	1
Agriculture	6	2
Anthropology	8	2
Applied Computer Science	2	1
Architecture, Planning and Geomatics	1	0
Behavioural Studies on HIV/AIDS and Health	1	0
Biological sciences	1	0
Biomedical Technology	1	0
Business Administration	71	21
Communication and corporate strategy	5	1
Child and Family Studies	1	0
Dermatology	3	1
Development Studies	25	7
Electrical Engineering	4	1
Medicine	3	1
Education	16	5
Gender Studies	2	1

Information Technology	12	4
Law	27	8
Monitoring and Evaluation	3	1
Banking	3	1
Philosophy	11	3
Political Science	8	2
Population Studies	1	0
Public Administration	5	1
Project Management	10	3
Psychology	10	3
Public Health	47	14
Languages	1	0
Social Sciences	3	1
Social Work	7	2
Sociology	6	2
Theology	4	1
Town planning	1	0
Water Science	2	1
E-science	1	0
Forensic Science	1	0
Accountancy	2	1
Dietetics and Nutrition	5	1
Mathematics	2	1
Liabrary Information Systems	3	1
Physiotherapy	5	1
Electrical Engineering	3	1
Mechanical Engineering	2	1
Entrepreneurship	3	1