



## Reflections of novice supervisors on research supervision: a case study at a South African university of technology

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### Abstract

Research supervision is a critical process in which a supervisor guides a research student through conceptualising a research idea, preparing a research proposal and ultimately producing a comprehensive dissertation. The role of a research supervisor is essential in ensuring the quality of the research conducted. This paper explores the experiences of novice supervisors at a South African University of Technology (UoT) as they navigate the complexities and challenges of their roles in research supervision. This paper is guided by theory of experiential learning and role identity theory, focusing on the institutional, pedagogical and relational difficulties novice encounter. The reflective narratives of the participants revealed the importance of formal training, careful supervisor selection and stronger student engagement with institutional support services. This work recommends the need for universities to invest in equipping novice supervisors with the necessary skills and resources, and to nurture greater collaboration between academic departments and support services. Such efforts are essential to strengthening supervision practices and enhancing the overall quality of research outputs.

**Keywords:** Higher Education; Novice Supervision; Narrative Enquiry; Research Supervision; Supervision Pedagogy; Student Support Services.

### Introduction

#### Background

Research supervision is a crucial catalyst for driving student research projects to successful completion. Scholars have identified its pivotal role in determining students' ability to successfully complete their academic qualifications, particularly those that include research project modules (Eyangu et al., 2014; Ali et al., 2019; Namubiru et al., 2021). For many years, student research was primarily a huge focus within traditional universities. However, with the recognition of the economic contributions made by research and the compelling need to produce graduates prepared for the global economy, Universities of Technology (UoTs) have also intensified their focus on student research.

This shift reflects a broader acknowledgment of the value and impact of research activities on student learning outcomes, professional development and contributions to the

academic community. Nevertheless, amid the evolving academic landscape, the role of research supervision remains of significant importance, necessitating appropriate supervision of research students (Vereijken et al., 2018). Moreover, the recent focus shift to research at UoTs has become increasingly important, especially for novice research supervisors. Despite the longstanding focus on research in traditional universities, research student supervision still presents several challenges, including time constraints, irregular contact with students and technology-related hurdles with remote supervision (Muhammad & Munir, 2020).

While a wealth of literature exists on research supervision practices in traditional universities, understanding the specific needs, challenges and best practices for research supervision in UoT settings is limited. Given the unique characteristics and focus areas of UoTs, which often place emphasis on theoretical and practical outcomes, it would be useful to understand the research supervision landscape at

such institutions. In light of this, the current investigation aimed to bridge this gap by probing into the experiences of novice research supervisors within a UoT.

In this study, two novice academics reflect on their experience; bringing insights, lessons learned and recommendations to improve future research supervision practices. The practice of reflection is recommended as an effective tool to improve the research supervision practice of beginner academics (Douglas, 2013; Bawaneh et al., 2020).

### ***Transition in Qualification Levels and Its Implications for Research Capacity in Higher Education***

In keeping with the quest to align with the demands of national professional bodies, there is a gradual phasing out of Diploma and National Diploma programmes at the UoTs. Based on the National South African Qualification Authority (SAQA), Diploma and National Diploma programmes are National Qualification Framework (NQF) level 6 and do not consist of any research modules (SAQA, 2020). The diploma then articulates to the Bachelor of Technology which is NQF level 7 and comprises research modules (SAQA, 2020). However, the four-year degree programmes are at the NQF level 8. Unlike NQF level 6 Diploma qualifications, these qualifications include research modules requiring students to demonstrate comprehension of research theories, methodologies and techniques specific to their field of study (SAQA, 2012).

The qualification level descriptors were collaboratively approved by the Quality Council of South Africa which comprises the Council on Higher Education, the General and Further Education and Training Quality Council (Umalusi) and the Quality Council for Trades and Occupation (SAQA, 2012). NQF level 8 qualification initiatives then articulate to NQF level 10 which consists of Master's programmes (SAQA, 2020; SAQA, 2012). This, therefore, highlights that the shift from NQF level 6 Diploma and National Diploma programmes to NQF level 8 four-year degrees is a symbol of growth and quality improvement of higher education in South Africa. The change to NQF level 8 qualifications is in

keeping with South Africa's National Development Plan strategy which places research at the core of advancing the country's economic well-being and long-term sustainability (McKenna et al., 2017). This puts South African universities in a crucial position to transform the country into a resource-generating and knowledge-generating economy (Sonn, 2016; Costa, 2018).

### ***Research Supervision in Higher Education***

Research supervision is a complex craft that needs to be well structured to ensure quality and consistent supervision of research students (McKenna et al., 2017). It consists of three foci: teaching and learning, student development and the production of a research project (Cardilini et al., 2022; Maxwell & Smyth, 2010). It not only plays a major role in the development and completion of student research projects, but it also influences the timely completion of academic qualifications in which research project modules are embedded (Namubiru et al., 2021; Eyangu et al., 2014; Ali et al., 2019). Success largely depends on the supervisor providing mentorship, guidance and support to enable progressive student development and engagement with their research projects (Roberts & Seaman, 2018).

Due to the increasing demand for postgraduate research, research skills development for key personnel has become a priority for numerous institutions of higher learning (Choy et al., 2015). Consequently, numerous institutions have invested in research capacity development initiatives to equip their academic personnel with the skills and expertise required for student research supervision (Mhlahlo, 2020).

However, several challenges are prone to negatively impact the supervision process. At South African institutions, there is a reported backlog in training academics on student research (Grossman & Crowther, 2015). Research supervision-related skills are still not prioritised as a minimum requirement in the recruitment and appointment of academic personnel, leading to the appointment of inexperienced staff at South African institutions (McCallin & Nayar, 2012; Maistry, 2017). Due to the nature of student research supervision, where it is added to daily academic tasks, which include research and

publications, supervisors are often overwhelmed with excessive workloads (Roberts & Seaman, 2018). Personality conflicts between the supervisors and students, varied supervisor feedback to the student or inadequate feedback from the supervisor to the students have also been reported as challenges in research supervision (Roberts & Seaman, 2018).

These hindrances are further aggravated by the underdeveloped research skills and lack of experience of the research students being supervised (Jassim et al., 2015). Additionally, in the case of novice supervisors, these challenges are further complicated by the lack of student research supervision experience, yet they are expected to take on such a responsibility. It is common practice for novice academics to be expected to learn on the job (Maistry, 2017; Schulze, 2011). Despite the critical role novice supervisors play in the success of student research, many begin their supervisory duties without adequate formal training or institutional support. This gap often results in significant challenges as they navigate their roles, impacting both their professional development and the quality of supervision provided. Addressing these challenges is vital to ensure effective supervision practices and improved research outcomes at UoTs.

This reflective paper narrates a collaborative self-study process of novice academics at a UoT in South Africa, exploring their research supervision practice from a self-reflection perspective. Reflective practice has been utilised extensively in direct studies of pedagogical practice relating to quality to improve professionalism in research supervision, particularly among science teachers (Bawaneh et al., 2020). This aligns with the purpose of this reflective exercise which aimed to identify key areas of improvement, thus promoting professional development and contributing to knowledge within the discipline.

### **Theoretical framework**

The current reflection is underpinned by Kolb's (1984) theory of experiential learning and Stryker's (1968) Role Identity Theory.

### ***Kolb's Theory***

Reflective practice is firmly grounded in the theory of experiential learning which emphasises learning through the systematic reflection on real-world experiences to develop actionable knowledge (Kolb, 1984; Boud et al., 1985). Kolb's (1984) influential model outlines a four-stage learning cycle: (1) concrete experience, where individuals engage directly in a task; (2) reflective observation, involving critical examination of that experience; (3) abstract conceptualisation, where learners formulate theories or insights; and (4) active experimentation, in which these insights are tested in new contexts. This cyclical process is especially relevant in postgraduate supervision where both students and novice supervisors benefit from structured opportunities to assess their practices and align them with established academic standards (Kovacs & Corrie, 2022).

However, experiential learning does not automatically result in deeper understanding without deliberate instructional design. Yardley, Teunissen, and Dornan (2012) argue that structured reflection is essential to bridge the gap between experience and meaningful learning. Reflective practice, therefore, requires intentional self-inquiry and critical dialogue that challenge assumptions and promote adaptive thinking (Finlay, 2008; Kovacs & Corrie, 2022). This process supports the development of professional identity, deeper engagement and innovation in supervisory approaches.

Despite its pedagogical value, experiential learning has limitations. It can be overly subjective, difficult to assess objectively and inconsistently implemented, particularly when learners lack reflective competence (Beard & Wilson, 2018; Boud & Walker, 1998). These challenges are particularly evident in novice supervisors who may not yet possess the skills to extract deeper meaning from their experiences. To mitigate these issues, scholars recommend using structured reflective tools such as guided journals, prompts and peer debriefings which help scaffold critical thinking and enhance validity (Ryan, 2015; Moon, 2004). Incorporating scaffolding and assessment rubrics further ensure that reflective

learning is consistent, measurable and aligned with institutional expectations (Ryan, 2015).

Within the context of postgraduate research supervision, reflective practice enables academics to interrogate and refine their supervisory roles in alignment with evolving institutional norms and student needs. This approach fosters continuous professional development and improves supervisory quality, particularly in applied higher education environments such as UoTs (Kovacs & Corrie, 2022; Winberg et al., 2020).

### ***Stryker's Theory***

Stryker's theory refers to a role identity that highlights individual self-construction within socially defined roles and acknowledges the complexity, differentiation and organisation of society (Stryker, 2017). According to this perspective, individuals possess multiple role identities with distinct components of the self that correspond to the various positions they occupy in social structures, such as familial, political and occupational roles (Stryker, 2017). McCall and Simmons (1978), along with Blose et al., (2021), describe role identity as the individual's imaginative view of themselves functioning within a given social position. Expanding on this, Blose et al. (2022) define role identity as "self-conceptions, self-referent cognitions or self-definitions that people apply to themselves as a consequence of the structural role position they occupy and through a process of labelling or self-definition as a member of a particular social category."

While role identity theory offers significant insight into the dynamic and evolving nature of self-perception, it is not without limitations. While it effectively explains how social roles influence self-perception, it does not fully capture the complexities of identity formation and behaviour. It tends to overemphasise the role of social structures and may neglect individual agency, personal experiences and other factors that shape identity. Additionally, the theory's focus on stable, enduring identities can overlook the dynamic and fluid nature of self-perception in different contexts (van den Scott, 2023). Critics argue that it may

simplify the internal conflicts that arise when individuals juggle competing identities or experience role strain in new or uncertain environments (Burke & Stets, 2022). Additionally, identity salience promotes one role over another which can fluctuate depending on the context, and this introduces a level of subjectivity that can complicate analysis (Stryker & Serpe, 1982). However, when supported by reflective frameworks such as Kolb's (1984) experiential learning cycle, these limitations can be addressed through structured reflection and intentional identity exploration.

This study draws on both Kolb's experiential learning model and Stryker's role identity theory to conceptualise the dual processes of learning and self-definition experienced by novice research supervisors. The supervisory role is regarded not as a fixed position of expertise, but as a social identity in formation, shaped by experience, reflection and engagement (Blose et al., 2021; Pawar & Anscombe, 2022). Kolb's four-stage model of concrete experience, reflective observation, abstract conceptualisation and active experimentation provided the structure through which supervisors could interpret their day-to-day academic experiences (Chan, 2023). Simultaneously, Stryker's framework enabled the researchers to understand how these experiences shaped their evolving identities within the academic landscape.

Through this theoretical lens, novice supervisors were able to critically evaluate their supervisory practices, identify discrepancies between expected and actual roles and revise their self-conceptions accordingly. Role identity theory, in particular, provided a lens through which to understand how the institutional environment, peer relationships and personal aspirations intersected to influence self-definition. As such, the integration of these two theories offered a robust platform for self-recognition, identity negotiation and professional development, positioning reflection as both a cognitive and social process.

### ***Mezirow's Transformative Learning Theory***

To further deepen the understanding of reflective learning and identity development,

this study also draws on Mezirow's (1991) transformative learning theory. This theory complements both Kolb's (1984) experiential learning model and Stryker's (1968) role identity theory by highlighting the cognitive and emotional dimensions of professional transformation. Mezirow posits that learning becomes transformative when individuals are confronted with a "disorienting dilemma"—a situation that challenges their existing assumptions and compels them to critically re-evaluate their beliefs, values and practices (Kurnia, 2021; Taylor, 1997). This process unfolds through phases that include critical self-reflection, rational discourse and the eventual reintegration of new perspectives into one's professional identity.

Within the context of novice research supervision, Mezirow's model helps explain how supervisors, when confronted with the demands of their new roles, may experience internal dissonance that triggers reflective inquiry. This reflection does not merely lead to incremental improvement but rather facilitates a fundamental shift in how supervisors see themselves, their roles and their relationship with students and the institution. Such perspective transformation is central to developing agency, adaptive competence and professional resilience (Chang, 2017; Isopahkala-Bouret, 2008).

Integrating Mezirow's theory also strengthens the social and identity-focused dimensions of Stryker's (1968) role identity theory. While Stryker emphasises how individuals internalise and prioritise socially constructed roles, Mezirow focuses on the capacity of individuals to critique and reconstruct these roles through reflection and dialogue. This theoretical synergy allows for a more nuanced understanding of how novice supervisors not only occupy new identities, but also actively shape and redefine them in response to institutional demands and personal growth.

Moreover, Mezirow's emphasis on critical reflection aligns with Kolb's experiential cycle, particularly the stages of reflective observation and abstract conceptualisation. Whereas Kolb offers a procedural model of learning through experience, Mezirow introduces

a critical lens through which such experiences are interpreted and transformed. The inclusion of rational discourse, emotional engagement and contextual sensitivity distinguishes transformative learning as a process that is both intellectual and affective.

While Mezirow's model has been widely adopted in adult education, scholars have noted its limitations in accounting for contextual complexity, relational dynamics and cultural variance (Taylor, 1997). In response, this study applies the theory flexibly, recognising the interplay between personal reflection, institutional structures and collegial interactions in shaping transformative learning outcomes. Particularly in supervisory contexts that demand role adaptation, emotional labour and academic leadership, Mezirow's framework enables a richer exploration of how supervisors navigate uncertainty, reframe challenges and develop professional authenticity.

Applied together, the theoretical integration of Kolb's experiential learning cycle, Stryker's role identity theory and Mezirow's transformative learning model offer a robust and multidimensional lens through which to explore the professional development of novice research supervisors. These frameworks not only support an understanding of how learning and identity are constructed through experience, reflection and social positioning, but also underscore the transformative potential of reflective practice within higher education.

### Methods

#### *Self-Reflection as a Rigorous Methodology for Exploring Professional Identity and Practice*

Self-reflection, as a research method, offers a rigorous yet personal approach to inquiry, particularly suited to exploring internal processes such as learning, identity formation and professional development. Grounded in the work of Schön (1983), reflective research distinguishes between reflection-in-action—thinking on one's feet during practice—and reflection-on-action—a retrospective process of analysing decisions and outcomes. This duality allows practitioners to interrogate their assumptions, recognise patterns and identify areas for growth in real time and post

hoc. Boud et al., (1985) extend this by providing a structured framework for reflection, emphasising the importance of emotional engagement and the transformation of experience into learning.

In academic research, especially within practice-based fields, self-reflection provides a valid methodological tool for examining one's evolving role within a dynamic context. Finlay (2008) cautions that the depth and criticality of reflection must be scrutinised to avoid superficiality, advocating for deliberate and context-sensitive reflection. Building on this, Ryan (2015) outlines a comprehensive framework that includes scaffolding techniques such as reflective prompts, rubrics and peer dialogue to ensure that reflection generates meaningful insight and analytic depth.

In the present study, self-reflection is employed not merely as a personal tool but as a structured research method to explore the experiences of novice research supervisors. This methodological choice allows for an in-depth examination of how identity, learning and professional practice evolve within the supervisory space, particularly when combined with Kolb's (1984) experiential learning cycle and Stryker's (2017) role identity theory. By systematically reflecting on their own supervisory practices, the researchers were able to make explicit the internal processes of transformation, cognition and adaptation. As such, self-reflection functioned both as a data source and as a mode of analysis, enabling critical engagement with practice and deeper theoretical insight.

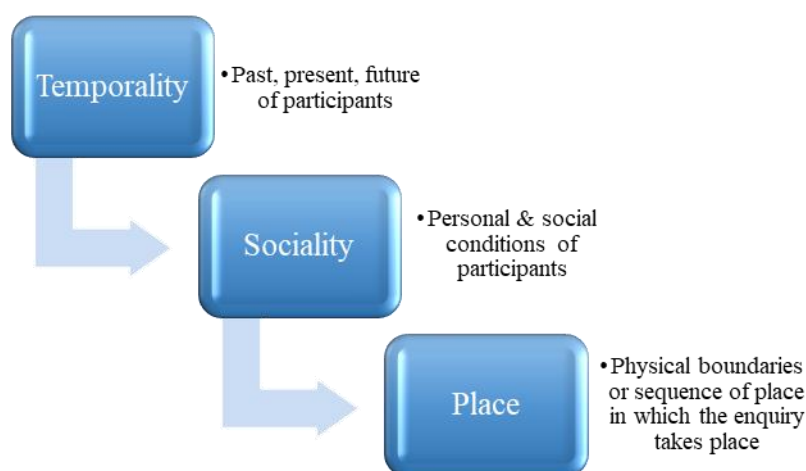
In addition to reflective analysis, our practice as novice supervisors was also guided by the foundational principles outlined in standard supervision agreements. These agreements formalise the mutual expectations between supervisors and postgraduate students and help clarify roles and responsibilities to promote ethical and productive research relationships (Odularu & Akande, 2024). Responsibilities of supervisors typically include providing timely, constructive feedback, fostering independent inquiry and ensuring academic and ethical guidance, while supervisees are expected to demonstrate initiative, meet agreed deadlines and engage meaningfully

with supervision (Severinsson, 2015). Although not formally embedded in our institutional context at the time, our reflections and evolving supervisory identities were informed by these tacit understandings of supervisory accountability. By referencing these agreements during our reflective process, we further ensured transparency, alignment with academic norms and a shared sense of responsibility in the supervisory relationship.

### ***Data Collection Method***

We applied the interpretivist paradigm in engaging with our experiences as novice research supervisors. We used this expository worldview of research as a framework to guide the way we engaged with our experiences in the supervision of postgraduate students within our department. In keeping with this approach, we maintain that there are multiple realities, not just a single ontological reality; because everyone has a subjective perception of their experiences (Pham, 2018). We opted for the qualitative approach since it effectively enables comprehension, description and explanation of social phenomena (Mohajan, 2018). According to Clandinin (2019), individuals narrate their experiences best through storytelling.

We adopted narrative inquiry to reflect and tell the story of our experiences in the pedagogical practice of research supervision in the specified period within the university. We both recounted and explored our experiences which aligns with the notion that "narrative inquiries begin with inquiring into researchers' own stories of experience", as asserted by Caine, Estefan, and Clandinin (2019) in their reflections on narrative enquiry. We were both researchers and each other's participants, and this enabled enquiry and understanding of our individual experiences. This practice follows literature reviewed by Ntinda (2019) on narrative research, citing the work of Clandinin (2019), which states that it takes place "through collaboration between researcher and participants over time, in place or series of places and in social interaction with milieus". Narrative enquiry encompasses three factors as described in *Figure 1* below:



**Figure 1:** Three factors of narrative inquiry (Clandinin, 2019)

In the current study context, “temporality” refers to us as participants. “Sociality” concerns our emotions, plans and aspirations, while the social conditions refer to our experiences, namely cultural, social, institutional, familial and linguistic. “Place” refers to where the research occurred which is at the UoT where we are currently employed. Our close collegial relationship enabled us to carry out the research. Our research supervision experience was similar, and as such, information sharing and understanding were seamless. This ease enabled us to comfortably relate our temporality and sociality in our individual experiences. Furthermore, the inquiry occurred in a work setup which is a common and familiar space for both of us.

We used reflective journal writings to collect data—an approach that has been deemed effective in obtaining information about a person's feelings in behavioural science and teacher training (Bashan & Holsblat, 2017). The journal entry writing enabled each participant to recount their experiences independently. Thereafter, we scheduled meetings to share the notes. In keeping with the narrative enquiry method, we analysed the journal entries and organised them into coherent thematic accounts of our narratives (Barkhuizen & Consoli, 2021; Azzahrawi, 2021). Themes were developed inductively through iterative readings and collaborative discussions, ensuring that they accurately represented the data and reflected both researchers’ perspectives. Other educators have successfully utilised this information sharing as a collaborative research tool to improve their pedagogical practice (Percy et al., 2019). We

referred to the ethical guidelines of narrative inquiry as described by Polkinghorne (2002) and cited by Azzahrawi (2021). Ethical considerations were applicable in this study. We addressed potential biases inherent in reflective research by practicing ongoing reflexivity, critically examining how our identities and experiences could influence interpretation. We committed to honest and accurate reporting of findings, avoided data falsification or plagiarism and maintained transparency to uphold research integrity throughout the study.

In this paper, we present the emerging themes from our storied narratives. During our inquiry process with our experiences and information sharing, there was no conflict in our roles as participants and co-researchers which ensured consistency and eliminated biases, making our findings reliable. This narrative inquiry ensured authenticity, enhancing the quality and credibility of the study. The experiences were subjected to quality control procedures which have been vetted in the literature to increase the credibility of our qualitative narrative inquiry (Barkhuizen & Consoli, 2021). During the storytelling process, we checked each other’s stories. We further engaged in audience validation by sharing our narratives with trusted colleagues for feedback which helped confirm the authenticity and credibility of our interpretations. This peer validation, persistent observation and audience ratification allowed for adequate quality control, relating to the truthfulness of the presented paper, as advocated by Johnson et al., (2020). The

following section is a report of the experiences of the academics during this insightful experience.

## Results

The following discussion describes the experience of novice academics as supervisors of research students at a UoT in South Africa. The research supervision on which the reflection is based, spanned one year. The research students were supervised from the point of research topic conceptualisation in their third year of study until the completion of their research project and submission of the research mini dissertation at the end of their fourth year. The group of students mainly consisted of African students from varying degrees of social status. At the time of research supervision, both academics had four research students to supervise, and this reflection is based on the supervision of those four students. The academics did not attend any research supervision training before this, and both were enrolled for doctoral degrees. The only existing source of knowledge of research supervision was their interaction with their supervisors during their post-graduate research studies which was used to guide their practices. Further guidance was obtained from existing departmental research guidelines and the review of literature related to academic research supervision.

## Experiences

### *Novice Academics*

The craft of research supervision is the highest form of teaching and requires the appropriate application of supervision pedagogy at the centre of all research student-related practices (Kandiko & Kinchin, 2012; Namubiru et al., 2021). However, there is an erroneous assumption that academics automatically know what research supervision entails. According to Maistry (2017) and Schulze (2011), novice research supervisors are often forced to learn how to supervise students on the job. As such, students' supervision was conducted in a style similar to how the novice academics were supervised as research students. The supervisors also guided and supported each other based on their experiences as research students. However, by their inexperience, the academics lacked confidence in their ability to

deliver quality supervision of the research students.

### *Academic Capacitation*

As of 2021, approximately only 33% of academic staff at UoTs had PhDs or doctoral qualifications (Van Lill, 2019). This deficit is expected considering that historically disadvantaged institutions only recently became more oriented towards research. Due to their history of not being research-intensive, they seldom attract seasoned researchers. As such, most academic personnel at UoT institutions are research novices.

In the current study, the academics involved were both doing their doctoral studies as part of the institution's capacity development programme, in addition to routine academic duties and responsibilities. Although the opportunity to supervise research students presented an exciting career development experience, the task of supervising research students led to a substantial increase in their workload. This resulted in the academics being highly overwhelmed and slightly limited in the level of support they could provide their students. The workload was further exacerbated by the students who required refresher training on theoretical concepts of research methodology despite successfully completing the research methods module. Although the mandate to increase student research at tertiary institutions and capacitate academics is well intentioned, it is somewhat mismatched with ongoing academic duties and responsibilities.

### *Pedagogical Approach Dilemma*

The research methods module study guide and the dissertation marking rubric were used to guide research project supervision, although it was not officially meant to guide research supervision. This was done due to the absence of official guidelines and training for research supervision. However, this makeshift approach was limited in that the guidelines from the study guide were not adequately informed by learning theories and research supervision pedagogies. As such, there is a need for clear guidelines or a protocol on research supervision to

guide the process and ensure adequate support for the students.

### ***Student-supervisor Relations***

The quality of the supervisor–student relationship is a critical determinant of successful research completion, as it fosters academic confidence, motivation and effective guidance (Lee, 2008; McCallin & Nayar, 2012; Namubiru et al., 2021). This relationship is often framed as a dynamic and dialogic partnership rather than a hierarchical exchange where mutual respect and communication significantly impact the research trajectory (Manathunga, 2007; Deuchar, 2008). In the context of this study, students completed their research projects while engaged in industry-based internships, requiring supervisors to rely on remote methods such as instant messaging and email for communication. While remote supervision offers flexibility, it can erode boundaries between professional and personal time, often leading to an "always-on" culture (Kumar & Johnson, 2021; Houlden et al., 2021). This shift to digital supervision without institutional support structures, has been linked to increased stress and burnout among supervisors, particularly when students require high levels of academic and emotional support (Peltonen et al., 2017; Lillis, 2011).

Moreover, research shows that remote supervision can complicate the establishment of relational trust which is foundational to effective supervision (Carter & Kumar, 2017; Gatfield, 2005). In this case, the absence of face-to-face engagement during critical stages of the research process limited the development of rapport and made it difficult to negotiate clear communication boundaries. As a result, supervisors often responded to student queries after hours, impacting their work-life balance and further intensifying role strain. These experiences align with broader findings that stress the need for structured supervisor training and institutional frameworks that support remote supervisory relationships (Ssempebwa et al., 2016; Halse & Malfroy, 2010). The findings point to the importance of formalising remote supervision protocols to protect both student progress and supervisor wellbeing.

### ***Teacher-focused Approach***

Although this is not a preferred teaching method, the bulk of the teaching and learning during the research supervision process was that of the supervisor as a primary source of knowledge. This was mainly because students expressed a lack of confidence in their research knowledge, were fearful of the subject and had concerns about academic writing skills. This led to the supervisors overextending themselves and conducting several online sessions with the students to assist them with correcting their research proposal and dissertation writing tasks. Consequently, since the supervisors were performing more than just the supervision task, some deadlines for reviewing student submissions were negatively impacted.

### ***Language Proficiency***

Although this study is based on academics at a previously disadvantaged UoT, the institution has made considerable efforts towards providing support services to assist students from different backgrounds throughout their academic careers. The support services include library services, communication and a language proficiency and writing centre. The cohort of students consisted of African students to whom English is a second language, and so, there was a distinct challenge with language proficiency. Although the supervisors did encourage the students to utilise the services provided, submission for written material by the students indicated otherwise.

### ***Time Constraints***

The outbreak of the COVID-19 pandemic led to multiple disruptions in academic calendars globally, and South African higher education institutions were no exception (Czerniewicz et al., 2020). At the institution where this study was conducted, the university calendar was revised several times to accommodate shifting public health directives, resulting in compressed timeframes for the completion of academic tasks. These shifts placed significant pressure on both staff and students, particularly those involved in research activities, as deadlines for data collection, analysis and dissertation submission became

increasingly stringent (Bao, 2020; United Nations, 2020).

Students in this study who were conducting their research while completing internships at industry laboratories, faced additional delays due to limited access to research data and institutional facilities. These constraints echo findings by Watermeyer et al. (2021), who noted that students undertaking field- or lab-based research during the pandemic experienced substantial setbacks due to restricted access to essential resources. The already condensed timelines were further strained by the additional demands placed on supervisors who had to re-teach key research concepts that students struggled to retain or apply, despite having completed a formal research methods module. This reflects a broader concern about the limitations of online learning during the pandemic, particularly in disciplines that rely heavily on experiential or applied learning (Aristovnik et al., 2020).

Moreover, supervisors found themselves managing a wide array of student needs beyond academic guidance, including frequent after-hours consultations, support for language proficiency challenges and emotional reassurance. This multi-layered burden resulted in heightened stress and emotional exhaustion for supervisors, many of whom were simultaneously navigating their own doctoral studies and institutional responsibilities. These findings are consistent with international literature documenting academic burnout during the pandemic, particularly among those in supervisory and teaching roles (Kinman et al., 2021; Sahu, 2020). The situation underscores the need for institutional recognition of the intensification of academic labour during crisis conditions, and for the development of policies that support both supervisors and students in navigating such disruptions.

## Discussion

These reflections highlight several key challenges and experiences encountered during the process of supervising research students. The outcomes of this study revealed that the novice supervisors did not receive formal training before being assigned to the group of students they were to supervise. While it is evident that novice

supervisors face significant challenges due to the absence of formal training, these also form the foundation for experiential learning and identity development. Rather than viewing the lack of preparation solely as a deficit, this study recognises it as a catalyst for growth through direct engagement in the supervision process. As the novice academics navigated these challenges, drawing from their own experiences as former students, consulting departmental guidelines and reflecting critically on their practice, they began to construct their supervisory identities. This process aligns with Kolb's (1984) experiential learning theory which emphasises learning through concrete experience, reflective observation and active experimentation. Simultaneously, Stryker's (1968) identity theory helps frame the evolving sense of self as supervisors, shaped by repeated interactions with students and the broader academic environment. Therefore, the two core themes—challenges and identity development—are not contradictory but mutually reinforcing. Together, they illustrate how learning to supervise under less-than-ideal conditions contributes meaningfully to professional growth and identity formation in academic practice.

However, it is not uncommon for novice supervisors to learn on the job (Maistry, 2017; Schulze, 2011). A study by Madondo (2021) on business management postgraduate research supervision discourses in South Africa reports a lack when it comes to the use of pedagogical knowledge and practices among supervisors. In other medical health professions, findings indicate that postgraduate research supervision encounters numerous challenges with negative consequences for the profession (Muraraneza et al., 2020). Based on this, it is clear that the lack of training of supervisors is a challenge disseminated across different academic fields. This is concerning when considering the important role of research supervisors in guiding and mentoring students to develop research skills, as highlighted by Namubiru et al. (2021) and Eyangu et al., (2014). This underscores the direct impact of research supervision on students' completion of their qualifications. This lack of supervisor training contrasts with tertiary institutions' mandates to provide formal professional training for supervisors of research students (McCulloch &

Loeser, 2016). Ultimately, this could lead to challenges in providing high-quality supervision due to a lack of confidence and potentially limited knowledge of best practices in research supervision.

The study revealed that in addition to drawing from past experiences with their research supervisors, the researchers also utilised the research methods module study guide and marking rubric to guide their supervision practices. There is little to no evidence to indicate that the guiding documents used were informed by existing learning theories and pedagogy. The research process consists of a series of complex processes, including research conceptualisation, development, writing, data collection and analysis, synthesis and reporting results. Therefore, continuous training is imperative, particularly for novice supervisors (Ssentamu & Sajjabi, 2020). In light of this, the supervision pedagogy should be central to the research supervision process (Kandiko & Kinchin, 2012).

The mode of communication utilised during supervision, resulted in interaction beyond office hours. The nature of the research journey is challenging and demanding and requires students and supervisors to negotiate and establish different modes of communication to make the research journey more enjoyable and fruitful (Ssentamu & Sajjabi, 2020; Namubiru et al., 2021). Although communication was challenging, the correspondence and interaction between the supervisors and the students were still in line with recommendations by Namubiru et al. (2021), to maintain good student-supervisor relations.

The current reflection demonstrated students' reliance on supervisors to supervise the research process and teach them research concepts, despite them having completed the research methods module. The role of a supervisor is to guide and manage student research to ensure that it occurs accordingly (Vilkinas, 2002). On the other hand, the role of a research student is to drive research to ensure successful progression from the point of conceptualisation to literature searching, data collection, analysis and synthesis, and on to writing the research proposal and dissertation until successful completion (Knox et al., 2006). Based

on the current study's findings, the students had high expectations of their supervisors beyond managing and guiding the research process. This is in line with Namubiru et al. (2021), who highlighted that research students often have inflated confidence in their supervisors beyond the defined role of supervision. Although encouraging students to utilise support services is important, it may not fully address language proficiency issues, making it imperative for interventions to improve language to begin at lower education levels.

All research students were African, and English was their second language, resulting in issues of language proficiency which is not uncommon in such a scenario. With this challenge, the students depended on the supervisors to assist despite the student support services that the institution provided. Challenges with academic language proficiency are a general problem among South African learners (Lamberti, 2013; Van der Merwe, 2018). In addition to English being a second language, the challenge of language proficiency has also been attributed to the limited focus on developing reading skills for academic purposes at lower levels of education (Van der Merwe, 2018). Despite the provision of support services at the institution, the quality of the draft documents submitted by the students to the supervisors demonstrated the under-utilisation of student support services.

Supervision of this group of students occurred at a time when the world was faced with the COVID-19 pandemic. The lockdowns and restrictions disrupted activities globally across multiple sectors, including education. The closure of schools and other learning facilities impacted the education of approximately 94% of the student population worldwide and almost 99% in low-and-middle-income countries (United Nations, 2020). The institution established a contingency plan for teaching and learning to occur online. Despite this, operational activities at the institution were constantly changing according to COVID-19 regulations that the government was continually reviewing in response to the pandemic. As a result, some deadlines became very narrow to try and save the academic year which placed much pressure on academics and ultimately, the students. Compounded with the ever-changing deadlines

during the pandemic was the reported challenge with language proficiency which caused further delays in producing quality documents within the affected deadlines.

The overall findings accentuate the complexity and multifaceted nature of research supervision, particularly for novice academics operating within environments characterised by limited resources and institutional support. Addressing these challenges requires a combination of targeted interventions, including formal supervisor training, the development of clear supervisory guidelines, enhanced student support services, strategies to promote the uptake of these services and practical solutions for managing academic workloads and time constraints.

Beyond these immediate findings, the broader significance of this study lies in its contribution to ongoing conversations about institutional transformation and capacity building in historically disadvantaged contexts. Situated within a UoT in South Africa which is one of 26 institutions originally established with a teaching mandate, this study offers a contextually grounded examination of the realities of postgraduate supervision during a period of institutional transition toward a stronger research orientation. This shift brings with it a distinct set of challenges, including a shortage of experienced supervisors, underutilised support services and students entering postgraduate study with limited academic writing and research preparedness. Unlike historically advantaged research institutions with robust postgraduate traditions, UoTs must meet the same academic standards with fewer resources and support mechanisms. By focusing on the experiences of novice supervisors in such a setting, this study contributes valuable insights to the literature on academic development and postgraduate education in resource-constrained environments. It emphasises the importance of evaluating institutional performance in relation to each university's mission and developmental stage, rather than through comparisons with historically advantaged peers. In doing so, the study supports a more equitable and context-sensitive understanding of how research supervision can be improved to meet the demands

of a transforming higher education system in South Africa.

The integration of Kolb's (1984) experiential learning cycle, Stryker's (1968) role identity theory, and Mezirow's (1991) transformative learning theory provides a cohesive framework for interpreting the findings of this study. In the absence of formal supervision training, the novice supervisors in this reflection relied on direct experience, critical observation and iterative learning core elements of Kolb's model to navigate the complex task of guiding postgraduate students. These ongoing supervisory experiences served not only as opportunities for learning but also as moments of identity negotiation, as described by Stryker's theory. The evolving expectations, student needs and institutional demands pushed the supervisors to redefine their roles within the academic structure, gradually forming a more confident supervisory identity.

Concurrently, the emotional and cognitive dissonance triggered by unfamiliar responsibilities and workload pressures functioned as disorienting dilemmas central to Mezirow's transformative learning theory prompting deep reflection and a reassessment of prior assumptions about teaching, research and mentorship. The reflection process thus became both a learning mechanism and a transformative experience through which supervisors developed adaptive strategies, agency and a sense of professional authenticity. Collectively, these theories underscore how experiential learning, social identity formation and transformative reflection operated simultaneously in this study to support the supervisors' growth within a resource-constrained, transitional academic environment.

## Conclusion

The main aim of this study was to reflect on the experiences of two novice academics supervising the research projects of eight students. Study findings demonstrated that the increasing demand on tertiary education institutions to increase students' research capacity in UoTs in South Africa demands higher quality standards for developing quality research supervisors. As such, the need to provide research supervision training

for novice academics to ensure the production of quality research graduates cannot be ignored. Considering the growing demand on institutions of higher learning to increase student research capacity development, robust training and development of novice supervisors into quality research supervisors is urgently required to meet this demand. In addition to research supervision training, effective research supervision that does not compromise the quality of research students must be guided by a protocol informed by relevant theories. The ideal learning theories include behaviourist, cognitive, constructivism, critical pedagogy, person-centred and experiential teaching methods. These theories are relevant because they address the diverse learning needs of research students, promoting active engagement, critical reflection and personalised support which are essential for successful research supervision.

It is, therefore, recommended that a protocol informed by the aforementioned teaching methods be developed to guide novice academics and ensure the development of quality research students. The study highlighted that communication between the students and supervisors went beyond normal working hours to ensure that research activities were completed accordingly. This experience is in keeping with the craft of supervision which is often emotionally and mentally demanding for both the student and the supervisor (Namubiru et al., 2021; Tahir et al., 2012). As such, careful selection of potential research supervisors is essential to ensure the overall commitment and success of student research development. Thorough selection entails identifying supervisors who not only possess academic expertise but also demonstrate dedication, strong interpersonal skills and the capacity to manage supervision alongside other responsibilities effectively.

The study also revealed the under-utilisation of student support services by research students which caused the supervisors to go above and beyond the role of supervision to assist the students. A culture of utilising the available services should be developed and encouraged among students even before undertaking research studies. The onus does not lie only with the students but also with the support service

providers to make themselves known and easily accessible to students. It is recommended that student support services work closely with departments and make their contact information easily accessible to students.

### Summary of Recommendations

Institutions should prioritise formal training for novice supervisors to equip them with essential skills and knowledge, alongside developing clear guidelines or protocols for research supervision to ensure structured guidance and support for students. Centralising supervision pedagogy in the research supervision process and offering continuous training on effective approaches is crucial, while also enhancing communication channels between supervisors and students, particularly for remote supervision. Implementing interventions to improve language proficiency, starting from lower education levels, and maintaining flexibility and adaptability in response to external factors like the COVID-19 pandemic, by adjusting support structures and deadlines, accordingly, are imperative for effective research supervision.

### Limitations of the Study and Future Research

Limitations of this study include the small sample size of novice supervisors at a single institution, potentially limiting the generalisability of the findings, as well as the subjective nature of reflections provided which may introduce bias due to individual experiences and perceptions. Additionally, the study's focus on research supervision practices at a specific institution in South Africa may not fully encompass the diverse experiences and challenges encountered in other educational settings or countries. Future research could include comparative studies across different institutions or countries to identify common challenges and effective strategies for research supervision, longitudinal studies tracking the development of novice supervisors over time, exploration of research students' perspectives on supervision practices and evaluation of intervention strategies aimed at addressing identified challenges in research supervision, such as training programmes for supervisors or language proficiency support for students.

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