TRANSFORMING TEACHING IN HIGHER EDUCATION

Professional Development through the Postgraduate Diploma in Higher Education (PGDip) Journey

Jo-Anne Vorster, Laura Dison & Kibashini Naidoo (Eds)

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Marcellin Atemkeng received his PhD in the field of big data and statistical signal processing from Rhodes University, South Africa, in 2016. He worked as a Signal Analyst at VASTech, a telecommunications company in Stellenbosch, South Africa. From 2017 to 2018, he was a Postdoctoral Research Fellow at the South African Radio Astronomy Observatory. In 2019, he joined the Department of Mathematics at Rhodes University, where he is now an Associate Professor. He leads the Rhodes AI Research Group (RAIRG), focusing on big data analytics, statistical signal processing, machine learning, and artificial intelligence—applying these disciplines to marine ecology, medical imaging, and astronomy. In 2019, he received the Kambule Doctoral Award, which recognizes excellence in research and writing by doctoral candidates at African universities in computational and statistical sciences.

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Jo-Anne Vorster

Jo-Anne Vorster is an Associate Professor and head of the Centre for Higher Education Research, Teaching and Learning. Along with colleague, Lynn Quinn, she designed and taught one of the first Post Graduate Diploma in Education in Higher Education programmes in the country. Since 2011 she has co-designed and co-taught a PGDip (HE) for academic developers. Her research interests include knowledge and the curriculum, enhancing the field of academic development, and academic staff development. Jo-Anne supervises masters and doctoral candidates in Higher Education Studies. She is a member on the National Co-ordinating Committee (NCC) for the Enhancing Academics as Teachers in Higher Education Framework.

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Nicholas West is a Senior Lecturer within the School of Electrical and Information Engineering at the University of the Witwatersrand, Johannesburg. He completed his master's degree in Electrical Engineering followed by his PhD in the same discipline, graduating in 2009. Nicholas West has mainly published in the field of High Voltage Engineering. Since 2018 he developed an interest in Higher Education. This interest culminated in a master's degree in Higher Education through the Wits School of Education at the University of the Witwatersrand. After completing is Masters in Higher Education in 2020, Nicholas West has continued research in the field of Engineering Education. His primary interests lie in exploring the formation of academic identity. The use of Legitimation Code Theory and Margaret Archer's Social Realist frameworks has guided much of his thinking around Higher Education research.

Introduction

Why a book on PGDips in the field of Higher Education?

PGDips (HE) in Southern Africa

"We need a rigorously theorised approach to teaching that engages contextual realities, is based on research, and that builds scholarship on teaching and learning" (Badat, 2024:8).

Who we are as PGDip (HE) course designers and facilitators

This book stems from our immersion in the learning, teaching and assessment practices of higher education over more than three decades in South African universities. Our purpose and focus are shaped by our involvement in professional staff development and the design of PGDips in Higher Education at our respective universities. Together with academic development colleagues, we have coordinated, facilitated and evaluated PGDip courses in pedagogy, assessment, curriculum development and evaluation. Our backgrounds in academic development reflect a sustained commitment to enhancing staff development across disciplines and fostering innovation in teaching and research. We share a common interest in researching teaching and learning and in building partnerships and communities with disciplinary specialists. We have consistently highlighted the relationship between reflective teaching and the Scholarship of Teaching and Learning (SoTL) as a central component of the academic project. We have worked collectively to raise the standard of university teaching and to advance the professionalisation of academics as university educators.

Across Southern African universities, higher education specialists have been instrumental in formalising teaching and learning, acknowledging that many academics teach without pedagogical training. These efforts are part of a broader agenda to transform higher education systems so that academics can better respond to student needs and contribute to a more socially just and equitable society. Since their introduction in the early 2000s, PGDips or equivalent qualifications, have been responsive to the broader contexts and ecologies of the higher education system and its persistent challenges. The professional development of academics as educators forms a critical dimension of transformation within this complex landscape, where patterns of student success and failure continue to be influenced by race, social class, and other structural inequalities.

Horrod (2023:144) has critiqued the way that university policy documents, shaped by a neoliberal higher education context, often marginalise the role of university teachers by employing generic references to "teaching and learning" and neglecting the "embodied practices of an experienced, skilled, continuously evolving person". Postgraduate Diplomas in Higher Education have helped to bridge the gap between policy and practice by offering practical and reflective learning experiences while reinforcing the role of universities as catalysts for positive change in higher education. Faced with the complexities of teaching in higher education, the value of PGDips is evident in the way that they systematically support academics in becoming reflective and scholarly teachers. These reflections are supported by critical questions such as:

- How do academics balance their disciplinary expertise with the need to design teaching that supports meaningful student learning?
- How do they prioritise students' learning experiences and the knowledge to which they are being given access?
- How do they navigate the tensions between institutional expectations, personal teaching beliefs, and the realities of diverse classrooms?
- To what extent do PGDips promote sustainable change in pedagogical practices beyond the duration of the programme?

- What forms of support are required to help academics to turn reflective insights into meaningful and sustained pedagogical change?

This book contributes to the theory and practice of higher education pedagogy by reflecting on the nature of programmes that are designed to deepen academics' understanding of key aspects of teaching and learning. It is intended for academics working in higher education across diverse contexts who are interested in reflecting critically on their own teaching practices and the learning of their students and evaluating the impact of their practices and programmes. The research in the book is applicable to academics who teach in professional learning and Higher Education Studies programmes and across disciplines whose interests are in researching teaching and learning and postgraduate supervision.

Bringing together theoretical perspectives and practical applications, this volume explores alternative ways of conceptualising learning-focused higher education practice. It shows how PGDips have withstood local and global challenges and have engaged with the critical need to decolonise education and to meet the diverse learning needs of undergraduate and postgraduate students. The book aligns itself strongly with values that characterise "good" higher education: "equity, justice (social, economic, environmental, epistemic, data, and design justice), sustainability, pluriversality, mutuality, generosity, creativity, and collectivism - all supported by ethics including affirmative ethics, relational ethics, environmental ethics, and ethics of care" (Czerniewicz & Cronin, 2023). It emphasises the characteristics of the processes involved in high-quality teaching and learning.

The main aims of the book are to:

1. Bring together scholarly work that explores the evolving nature of PGDips drawing on a range of programmes and disciplinary contexts to offer insights into the complexity of professional learning.

2. Examine the ways in which PGDips have shaped course designers' and academics' understandings of, and approaches to, teaching and learning in higher education, and how these programmes have influenced academic identities in teaching and research.
3. Illuminate contributors' critical engagement with higher education policies, theories, frameworks, and practices, and demonstrate how PGDips are contributing to curriculum development, teaching, learning, and assessment across disciplines.
4. Explore the role of PGDips in fostering reflexivity and enabling university educators to find creative and innovative ways to rethink and transform cultures of participation.
5. Showcase critical reflections on the ways in which PGDips have meaningfully contributed to the broader transformation agenda and supported knowledge building and responsiveness in changing higher education contexts.

Chapters offer theorised and critical accounts of PGDips in a range of higher education contexts. They reflect on the influence and challenges of institutional and disciplinary contexts on the design and pedagogy of the PGDip. The book is organised around the key themes of professional knowledge, identity and agency amongst educators, discipline-specific approaches to teaching and learning, the effectiveness and influence of professional education programmes, the role of critical reflexivity in teaching practices and the complexities of supervising postgraduate research.

The structure of the book

The book is structured into five parts featuring contributions from multiple authors and incorporating multi-site analyses. It draws on a variety of programmes and disciplinary contexts using diverse methodological approaches and data collection methods. The content of the book transitions from general theoretical deliberations on professional learning to more concrete, disciplinary-based and practical applications. Overall, the approach is qualitative and consists of in-depth exploration across sites, programmes, designers and perspectives.

Part I: Theoretical Foundations and Reflective Practice

This part of the book lays the theoretical groundwork for understanding how postgraduate diplomas contribute to the development of academics as educators. It explores the intricate interplay between knowledge, agency, and identity in relation to academics as teachers, drawing on a range of theoretical perspectives to highlight how professional learning in higher education extends beyond acquiring new teaching strategies. The book emphasises that teaching in higher education involves processes of rethinking and reimagining one's place within the academy, informed by reflective practice and critical engagement with theory.

This argument is articulated in Chapter one by Dison, Vorster and Naidoo, who reflect on the rapidly changing higher education context and the need to equip academics to become reflective, scholarly teachers who can navigate and contribute meaningfully to their institutions and beyond. The authors emphasise the need for academics to become scholarly teachers who engage critically with knowledge and theory within their specific contexts. This engagement fosters reflective practice and drives transformation in teaching and learning, ultimately enhancing student success. It addresses complex challenges in higher education pedagogy within the South African context.

The chapter by de Klerk, Benvenuti and McGregor homes in on individual university teachers at a micro level. An analysis of agential change at such a micro level can provide insight into how and why a PGDip (HE) can contribute to the professionalisation of teaching in higher education. The authors argue that individuals have as much potential to advance higher education and its goals as do collectives. They demonstrate this by comparing the agential and professional identity shifts experienced by Linda, a PGDip alumnus, to other alumni whose shift in agency appears less demonstrable. Even though it focuses on one individual, the lessons learned are transferable and the analysis points to why programmes like the PGDip may not always succeed in meeting their aims.

Chapter three engages with theoretical work on professional identity to illuminate how postgraduate study supports academics in constructing and negotiating their identities as teachers, often in environments where research is privileged over teaching. Identity formation is presented here not as a linear progression, but as a dynamic and ongoing process influenced by institutional norms, disciplinary cultures, and personal histories. In her chapter, Adams theorises lecturers' (faculty's) participation in professional development initiatives and the formation of their professional identities as teachers in higher education. The case study explores the interplay of the structural, cultural and agential conditioning mechanisms in the emergence of lecturers' professional academic identity. A vignette explores how one lecturer (Mike) mediated the social contexts of the PGDip, his academic department and the university to account for the formation of his professional academic identity. The chapter strongly advocates for the significance of social realism in understanding professional academic identity development, particularly regarding an individual lecturer's capacity for autonomous action (agency) within the structural-cultural nexus.

Part II: PGDip (HE) Implementation and Transformation

Academics occupy multiple roles while situated within disciplinary communities and departmental structures. The four chapters in this section continue to explore, in diverse ways, the significance of theory and critique university practices that have contributed to a diminished sense of community and accountability amongst academics. The authors engage with the growing prominence of teaching and learning in higher education discourses and practices (Horrod, 2023) and reflect on the value of theoretical and professional knowledge gained from the PGDip (HE). The chapters demonstrate a clear understanding of how educational concepts and processes have enhanced their teaching capacity.

The chapter by Padayachee, Dison and Ganas makes a theoretical contribution through the development of the "3P Framework" for evaluating professional development impact. The framework integrates personal, professional, and pedagogical

dimensions and draws on a combination of evaluation and professional development sources to inform teaching practice. They propose the multi-dimensional framework as a means to capture and illustrate the broad impact of the PGDip in Higher Education on teaching practices, professional agency, advocacy, and transitions in academic identity.

The chapter by Uys, Sirkhotte and Salie, using Shulman's categorisation of knowledge also offers a useful lens for understanding what academics need to know in order to teach effectively in higher education. The chapter extends Shulman's framework by proposing new knowledge categories to provide different insights into academic development. The social realist view of agency is used to examine how structural and cultural contexts enable or constrain academics' capacity to act purposefully in their teaching roles. This perspective challenges overly individualistic notions of agency, emphasising instead the contextual and relational dimensions of becoming a teacher in higher education.

The findings in the chapter by Ntšohi, Mosito and Kanjume unravel the dynamics and multifaceted dimensions that contribute to the evolution of teacher identities, focusing on the Postgraduate Diploma in Higher Education Programme at the National University of Lesotho. Evaluation of the programme reveals its significant contribution to transforming participants' professional identities as higher education teachers. The authors examine the experiences of PGDip participants prior to their engagement with the programme and the competencies that they believe they developed as a result of doing the PGDip and that will equip them to teach in a rapidly changing higher education context.

The final chapter in Part II, authored by West, presents an authentic autoethnographic account of identity transformation experienced during a PGDip (HE). Using the Legitimation Code Theory (LCT) semantics dimension, the chapter analyses the evolving nature of academic identity throughout the learning journey. West highlights the transformative potential of PGDip Higher Education programmes in supporting discipline experts to develop dual professional identities as subject specialists and

as educators within their disciplines. He analyses the shifts in his writing on the course as a proxy for detecting shifts in his gaze from a disciplinary expert to that of a teacher of the discipline.

PART III: Disciplinary Applications and Impacts

The chapters that are grouped in this section highlight the importance of belonging to an academic community and what Meyer and Land (2005) refer to as ways of thinking and practising in the disciplines. Each author offers an account of how the PGDip (HE) deepens their understanding of teaching as a socially situated practice shaped by their relationship with students, their disciplinary context, departmental culture, and institutional environment. The chapters emphasise the centrality of a dialogical approach to teaching and learning, emphasising that the advancement of the broader knowledge project relies on active engagement, collective inquiry, and the iterative process of critically appraising and refining ideas.

The chapter by Mashifana, Roopchund, Seedat, Mathaba and Sithole explores the transformation of engineering educators through professional development in the PGDip (HE). Using a transformational lens, the authors position teaching identity and a pedagogy of care as central skills, offering valuable insights into the gains achieved and the possibilities for enhancing teaching practice. They demonstrate how the PGDip (HE) addresses universal challenges in tertiary engineering education by equipping educators with tools for reflective teaching.

Similarly, Campbell's chapter, situated within a professional Master's programme in Counselling Psychology, highlights the transformative impact of the PGDip (HE) in shaping evidence-based teaching practices and promoting critical reflection. The author contends that the integration of theoretical frameworks with reflexive practice empowers educators to navigate and respond to the complexities of transformation within their teaching. She illustrates how the PGDip (HE) has equipped her to translate disciplinary expertise into meaningful learning experiences that actively engage students and prepare them to respond to the needs and challenges of the broader South African society.

In his chapter on a Mathematical Programming course, Atemkeng reflects on how the PGDip (HE) has influenced his approach to curriculum development. Drawing on Vygotsky's Zone of Proximal Development (ZPD), he applies this framework to enhance mathematical programming instruction. He demonstrates how student feedback prompted a re-evaluation of his course design and pedagogical strategies, particularly in addressing misalignments within the curriculum.

Part IV: Postgraduate Supervision and Development

The two chapters in this section highlight the value of the PGDip (HE) in enhancing the quality of the supervisor-student relationship within postgraduate supervisory contexts. They reveal that certain supervisory approaches are more effective than others in engaging with the intellectual demands of supervision and in supporting the processes that facilitate these tasks. discussing supervision responsibilities and student support needs

Graham and Masson bridge the domains of clinical and research supervision by extending the concept of the "internal supervisor" to postgraduate research contexts. Drawing on literature from supervision pedagogy, clinical supervision, and higher education, they demonstrate how insights from the helping professions can be aligned with relational models of research supervision to enrich the postgraduate supervisory relationship. By adapting the notion of the "internal supervisor" to this context, the authors offer novel perspectives on strengthening reflective supervision capacity within the PGDip (HE) programme.

The chapter on supervision by Fru, Augustine and Fru argues that while the current PGDip (HE) programme offers foundational principles and practices in teaching and supervision, it lacks sufficient emphasis on disciplinary-specific approaches and contexts. The recommendation for discipline-specific pedagogical training in STEM supervision arises from an analysis of challenges unique to science disciplines supported by concrete examples of barriers encountered in STEM postgraduate supervision. A specialised PGDip (HE) tailored for science supervisors would support their professional growth by developing pedagogical

competence and enhancing their capacity to mentor and teach effectively throughout the postgraduate supervision journey.

Part V: Institutional Collaboration and Implementation

The chapter by Tshuma explores the experiences of facilitators of a collaborative inter-institutional PGDip (HE) offered as part of a regional collaboration agreement between three universities in the Western Cape region of South Africa. It analyses the notion of collaborative agency in interinstitutional programme facilitation, where the role of critically reflective teaching in enhancing the quality of lecturers' professional development and teaching practice is considered. It draws on Raelin's framework to understand how facilitators negotiated the collaboration through various dialogic processes.

Conclusion

This final chapter presents a critical and social realist analysis of what this volume offers to an understanding of the influence of a formal programme like the PGDip (HE), as a mechanism for strengthening academics' roles as teachers of their disciplines in contemporary higher education. Vorster and Naidoo examine the structures of the PGDip and the main ideas, concepts and theories studied in PGDips and suggest the ways in which the pedagogical processes of the programme enable them to meet their aims of contributing to the professional learning of academics. They also consider institutional structural and cultural conditions as well as those on the systems level that influence the capacity of PGDips to shape academics' identities as teachers in higher education. Finally, they explore some of the absences evident in PGDips based on the preceding chapters and their own critical reflections and consider a way forward for this formal staff development programme.

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Part I

Theoretical Foundations and Reflective Practice

Chapter 1

Theorising the pedagogies of PGDips (HE) in the Global South

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Introduction

Academic roles in contemporary higher education are complex and multi-dimensional and have shifted over time to align with the purposes of higher education and with how universities are governed in contemporary society. As has traditionally been the case, academics are knowledge producers (researchers), and disseminators of knowledge (teachers); they also serve the university through participation in governance and administrative structures such as departmental, faculty, and institutional committees and take on roles as administrators, managers, and academic leaders. Community engagement was

added to the academic role as part of higher education's remit to contribute to transforming South African society (DoE, 1997). It can be integrated with the teaching role through service-learning and with the research role through what is known as engaged research. Academics also play a role in professional bodies linked to their disciplines or professions in the case of those who are involved in professional programmes like medicine, law, nursing and teaching.

The PGDip in Higher Education is a professional programme aimed at enhancing academics' roles as teachers in higher education. While there have been many advocates for the professionalisation of teaching, it was only in the early 2000s that the first PGDips were offered (Leibowitz et al., 2015). The National Framework for Enhancing Academics as University Teachers, signed by the then minister of higher education in November of 2018, recognises the importance of opportunities to develop academics as scholarly teachers who adopt a professional approach to teaching (DoE, 2018:3). PGDips provide opportunities for academics to engage in formal studies to build knowledge of key aspects of teaching and learning to enable them to devise context-appropriate teaching, learning and assessment strategies that meet the learning needs of diverse students at different stages of their academic studies.

The Diploma is aimed at the knowledge field of educational and higher education studies and the practice of academics as teachers (Shay, 2012; Liebowitz et al., 2017). The design of the Diploma recognises that teaching, like research, is an intellectual endeavour that should be informed by ideas, concepts and theories that enable academics to make sense of what "good" teaching and learning means for their disciplinary and institutional contexts. Therefore, the Diploma offers opportunities for academics to familiarise themselves with the theory and practice of teaching and learning in higher education studies, and with research into teaching and learning.

There have always been good teachers who have intuitively practised in ways that are appropriate for their disciplines and that advance student learning; however, there is ample evidence to suggest that new academics learn to teach through trial and

error. As argued by Rusznyak (2024), it is possible to learn to become a good teacher. This process is assisted by real-time feedback in the form of students' body language and solicited and unsolicited oral and written feedback by students and peers. Some participate in teaching development activities where they are introduced to research-based principles and theories of teaching and learning. Principled knowledge about teaching and learning takes account of the complexity that supports curriculum design and teaching, learning and assessment in higher education that is not often recognised in common-sense notions about teaching.

The higher education context for which the Diploma prepares academics has become progressively more complex over the decades because of globalisation, the effects of neoliberal policies and the shifts in the country's education system following the change from apartheid to democracy. The ever-burgeoning knowledge economy and ongoing technological advancements require high numbers of highly skilled professionals. These developments have been the main drivers of the massification of higher education world-wide. In South Africa, massification was also driven by the need to democratise higher education by providing access to the section of the black population that was previously denied entry, mainly those from working-class families. Between 1993 and 2020, the size of the student population in the country more than doubled from 473,000 to 1,094,808. Good teaching should be responsive to the national and institutional higher education contexts and to the real learning needs of students (Moll, 2004; Scott, 2009). In considering whether and how to respond to an ever-growing list of imperatives, academics need access to powerful knowledge about teaching and learning.

While South Africa has one of the largest higher education systems in Africa, with a gross enrolment rate (GER) of just above 20%, it lags behind many other countries in terms of participation of the full spectrum of those eligible to gain access. As is the case internationally, the number of university students in South Africa has been increasing, while the per capita investment of governments in universities has been declining with deleterious effects. For example, in this country, tenured positions have

declined significantly while the number of academics on contract across the system has risen to 65%; and the teacher-student ratio has increased by more than 50% between 2003 and 2020 (Essop, 2020) from 20.5:1 to 31:1. Universities are thus forced to achieve more with less, and teaching and learning have to take place in resource-constrained environments.

PGDips are designed to prepare academics to teach in the demanding context sketched above and in a system that still experiences the effects of the apartheid-era differentiation along the lines of race, language, and geographic area. One of these effects is the persistently weaker performance of black and coloured students compared to that of white and Indian students. Internationally, educational outcomes for lower-income groups tend to be worse than for middle-class or rich students as, generally, the latter are exposed to child-rearing and schooling practices congruent with the educational requirements of universities (Boughey & McKenna, 2021).

In South Africa, a university degree is associated with better employment prospects, as the per capita income of those with degrees is significantly higher than for non-degreed people. The unemployment rate for those with degrees is also lower than for those without a university education. In a country where it is critical to build the black middle-class, a degree is key to gaining access to relatively well-paying jobs, and the economy is in dire need of appropriately qualified people to fill the many available high-skill jobs, higher education cannot afford to continue to fail the majority.

Since the basic education system is still largely inadequate, it is the role of universities to ensure that students gain the knowledge, skills and practices needed to achieve success. As noted by Clarence (2021:2):

> Whether you have many years of experience or are new to teaching and lecturing in a university, whether you are tenured or working on contract, whether you have ten students or 500 students, you have the same moral and ethical responsibility: to do the best you can to

> enable the greatest number of your students to achieve meaningful success.

Teaching in ways that meet the real learning needs of students is thus a social justice imperative (Scott, 2009; Clarence, 2021; Czernowitz & Cronin, 2023). There are many reasons why young people struggle to be successful students. Schools should prepare pupils for multiple post-school employment and educational pathways, and not primarily for university study. In South Africa, it is widely acknowledged that many state schools do not provide students with the foundational knowledge, skills, literacies, and reading and writing practices required for university study. Ellery (2017) notes that for many students, university represents what she terms a code-clash in terms of their understanding of what learning means. For example, at school, learners engage with low volumes of work at a slow pace with frequent repetition of key ideas, concepts, and procedures. The curriculum content is often formulaic and highly teacher-directed, leading to learners approaching their studies in relatively passive ways. The amount of independent reading and writing required is minimal. This is in sharp contrast to the expectations for university study, where students are introduced to novel disciplines that require engagement with high volumes of complex knowledge, new ways of learning as well as the ability to work independently.

Ellery (2017, 2018) argues that students must develop disciplinary, learning and life literacies. *Disciplinary literacies* include ways of thinking, speaking, writing and being in the discipline; *learning literacies* are about what is needed to be a successful learner at university, including taking good notes, preparing for class, consolidating work after class, and so on (Middendorf & Pace, 2004; Meyer & Land, 2005); and *life literacies* are about taking care of one's health and wellness, ensuring adequate sleep, managing one's finances, etc. Most academics see their role as teaching the knowledge and skills of the discipline and the expectation is that students will develop learning and life literacies independently. Some students "crack the code" of the literacy demands of the disciplines. However, for many black and coloured students the so-called articulation gap (Scott,

2009) between school and university is already large, and there is evidence that students benefit when disciplinary literacies are made explicit, and they are provided with opportunities to practise and acquire these literacies. PGDips (HE) emphasise the importance of facilitating student learning in ways that bring forth core ideas and practices in the disciplines (Middendorf & Pace, 2004; Meyer & Land, 2005).

The #FeesMustFall and #RhodesMustFall student protests of 2015 and 2016 were the result, amongst other things, of the high cost of higher education. They were also an expression of black students' sense of alienation from institutional contexts, particularly those of historically white universities. This alienation emerges from the academic difficulties that students experience, and the psychological toll taken by learning and living that requires them to become different kinds of people. Furthermore, even though universities attract students who speak many languages and hail from diverse cultural backgrounds, the language of learning and teaching is English, and institutional cultures generally privilege Western traditions. Until very recently, national resources have not been provided to develop indigenous African languages as academic languages and many academics cannot speak an African language.

The knowledge base of most academic disciplines is predominantly Western and textbooks of many disciplines are produced in and espouse theories and use examples from the Global North. Student and academic activists have been calling for the decolonisation of institutions and disciplines. This means that academics are called upon to revise curricula, including teaching, learning, and assessment methods so that they are more congruent with the life-worlds of South African students. Expanding the "archive" (Mbembe, 2015) on which curricula are based needs time and dedication to the decolonisation project, and given the multiplicity of demands on academics' time and energy, few are making the time to contribute to this effort.

The coronavirus disease 2019 (COVID-19) pandemic has made evident the extent of the divide between middle-class urban-based students and those from working-class and rural backgrounds in terms of the extent to which living conditions are

conducive to studying as well as the extent of the digital divide. While it is the case that the current generation of students has more access to and are adept at using digital technologies, this cannot be accepted without question. Furthermore, in cases where students can be regarded as so-called digital natives, a consequence of access to digital technologies has resulted in many students struggling to read long texts and consequently their ability to write extended academic texts may be under-developed. Knowledge of appropriate pedagogical theory and a commitment to transformative education in universities in the Global South are necessary to enable pedagogically sound responses to these disruptions.

The rapid emergence and advancement of large language model generative artificial intelligence (Gen AI) adds to the challenges that teachers face in higher education. For some students in higher education, because they believe that a degree will provide them access to well-paying employment, Gen AI seems to offer them a way of "completing" some of the most challenging tasks without much effort. Academics and academic leaders in higher education are grappling with the implications of Gen AI for teaching, learning and assessment. An additional issue for all concerned with teaching and learning is how to work with students so that they can use AI as a resource to support their learning rather than as a tool to escape the intellectual labour necessary to learn.

PGDips offer participants the resources to shape their practice in ways that are aligned to ideas, concepts and theories that are congruent with changing educational contexts and the real learning needs of their students (Scott, 2009). The next section will show how PGDips offer participants the opportunity to systematically engage with these ideas to enable the development of and reflection on transformative practice.

The role of knowledge, theory, and theorising in facilitating reflective practice for academic staff in higher education

In this section, we argue that knowledge, theory, and theorising are indispensable in fostering reflective practice amongst higher

education academics. These elements equip lecturers to respond effectively to the challenges of contemporary teaching, ensuring that they design and offer inclusive, relevant and innovative learning experiences for student success.

Teaching in higher education is a dynamic, multifaceted and contested endeavour, far removed from the oversimplified perception of teaching involving knowledge transfer from an expert (lecturers) to students. Academics must navigate the complexities of designing learning experiences, making informed decisions, and articulating their pedagogical choices. This process requires reflective practice supported by robust engagement with knowledge, theory, and theorising. The growing diversity of students, technological advancements, and evolving global, national and institutional priorities discussed above make critical reflection even more important for academic staff.

Learning to teach as becoming a reflective teacher

The belief that good teaching is an innate ability persists, even in higher education. This myth often positions academics as "natural" educators, relying solely on disciplinary expertise to achieve teaching effectiveness. However, research in higher education challenges this notion, emphasising that teaching is not a spontaneous or intuitive practice but a learned and refined skill. Rusznyak (2024), in her inaugural lecture, asserts that teaching is extraordinary and becoming a teacher involves learning a specialised practice with a knowledge base that evolves through continuous learning, reflection and transformation of practice over time. Although her assertion relates to the development of teachers in schools, this is also true for teaching in higher education. Ashwin (2017), writing about teaching in higher education, makes a similar point in his critique of the myth of the "inspirational teacher," arguing that effective teaching requires systematic planning, critical reflection, and evidence-based strategies. Teaching, therefore, is not a series of charismatic performances but a deliberate, reflective, and scholarly practice of learning to teach (Leibowitz et al., 2017).

A key aspect of learning to teach is the need to be reflective. Reflective teaching involves more than thinking about what works

and what does not. Reflective teaching involves "systematically re-evaluating our teaching experiences in order to improve our teaching practices" (Ashwin et al., 2020:vii). Brookfield (2017) is more explicit in his discussion of critically reflective teaching, arguing that teachers draw on four different lenses to examine their practice: the teachers' personal experience, the students' perspective, the perspective of peers and engagement with knowledge and theories in education. To this one may add values and ethics (Schwandt, 2005), emotions (Zembylas, 2014) and reflection as a way of being. While it is important to acknowledge the importance of all dimensions, the focus here is on knowledge and theorising.

Ashwin et al. (2020:x-xi, emphasis in original) make four important points about reflective teaching which are worth quoting in full:

> The first is that it *is* possible to identify teaching strategies which are more effective than others in most circumstances. Teachers in higher education therefore have to be able to develop, improve, promote and defend their expertise by marshalling evidence and by embedding inquiry and evaluation within their day-to-day practices. Second, all evidence has to be interpreted - and we do this by 'making sense'. In other words, as well as information about effective strategies we need to be able to discern the underlying principles of learning and teaching to which specific findings relate - we need to *understand* what is going on in this complex aspect of our academic lives. Third, we need to draw on this understanding to change our practices so that reflection is more than simply thinking about teaching. Finally, that our work as reflective teachers in higher education is connected to the future of our societies and to the life chances of students with whom we work. Therefore, our lives and sense of the good society are implicated in this work.

This notion of reflective teaching suggests that it must be informed by knowledge of teaching and learning, that it entails some systematic research, involves critical engagement

with knowledge in relation to context and that it is about transformation which will have a positive impact on students and more importantly on society. In the next section, we delve into knowledge that reflective teachers engage with.

Knowledge and theory

Teachers in higher education are often required to develop reflective teaching portfolios for confirmation of appointment or promotion. These portfolios should include a teaching philosophy and an account of their practice that is linked to their philosophy. This requirement is often met with frustration about the need to engage with educational knowledge or theory and assertions about being a discipline specialist and not a teacher. However, the discussion of reflective practice in the previous section emphasises the importance of engagement with knowledge and theory on teaching and learning to transform discipline knowledge into knowledge that can be taught, what Bernstein (2000) refers to as pedagogising of knowledge. This involves asking important questions about what we teach, how we teach, and how we account for the decisions that we make. These are not easy questions to address and according to Bernstein (2000), the process of pedagogising knowledge involves struggles over whose interests are served.

Teachers in higher education draw on different bodies of knowledge to provide students with access to their disciplines and professions. Broadly speaking, teachers need to be experts in their disciplines, and they need knowledge of how to design learning experiences to teach disciplinary knowledge and make it accessible to their students. Shulman (1987) offers a more relevant and nuanced account of what knowledge teachers should draw on that considers student diversity and the complexities of teaching and learning in higher education. His concept of Pedagogical Content Knowledge (PCK) stresses the importance of blending disciplinary expertise with pedagogical understanding to meet diverse student needs. According to Shulman (1987:9), to achieve PCK:

> Teachers must not only be capable of defining for students the accepted truths in a domain. They must also able to explain why a particular proposition is deemed warranted, why it is worth knowing and how it relates to other propositions, within the discipline and without; both in theory and in practice

Teachers need to guide students and help them to apply and critically engage with knowledge to foster deep learning (Clegg, 2009) and to achieve this they need to be experts in their disciplines *and* be familiar with teaching and learning knowledge that enables them to make decisions on what to teach, the pedagogical strategies that are most appropriate for the context and help them to address the *why* question. An awareness of the context which includes institutional policies, cultural dynamics and societal trends, amongst others, is also important. Teaching and learning do not occur in a vacuum and Rowlands' (2000) model of learning to teach involves becoming familiar with the interplay of the personal context of the teacher's personal experience, the shared context of colleagues and students and the public context of educational theory. These three contexts act together to provide resources to learn how to teach (Ashwin et al., 2020) and according to Brookfield (2017:83), this helps to build a "critical rationale" for or approach to teaching which is transformative, theoretically informed and contextually relevant.

Educational theory and theorising

> Everyone who can think, can ultimately also theorise; and the project of theorising therefore is inherently democratic (Kant [1784] 1970).

Kant's idea emphasises the universality and accessibility of reason. His framing of theorising as an *activity* conveys the important idea that if everyone has the capacity to theorise, and therefore no one group should dictate to another; it also highlights the value of diverse voices. This notion of theorising is aligned with the argument presented here that theorising is important for critical reflection and transformation.

Changes in the world of work, and the rapid evolution of technology in combination with increased social, economic and political inequities make teaching and learning in South Africa and globally, complex and challenging. These changes introduce anxiety and excitement into teaching and learning, requiring teachers to be adaptable and responsive to the changing contextual and student needs. To achieve this, teachers can draw on knowledge and theories that are publicly available to address teaching problems as well as everyday practices from an informed knowledge-based position. Educational knowledge provides teachers with "a language" to explain and, if necessary, justify the decisions that they make about teaching and learning (Ashwin et al., 2020). It also provides teachers with a language to *think* about their teaching that goes beyond the practice, fostering intellectual curiosity and systematic research which could result in developing new ideas. Winberg et al. (2023) argue that engagement with theoretical frameworks is crucial for fostering criticality - a fusion of thinking, being, and acting critically. This critical stance enables academics to address power dynamics, challenge epistemological hierarchies, and create transformative learning environments. Through engaging with educational theory, academic staff become part of a public conversation which could result in questions about the applicability of theory to new contexts, fostering more innovative and novel ideas. This is well-captured by Caillé and Vandenberghe (2020:29):

> Although we admire well-crafted systematic theories, we think that theory is most productive not when it gives the right answers (and even less when it gives a priori answers) but when it poses the right questions; to organize questions in such a way that one can give good responses to empirical questions, that is the task of a good theory. It unsettles, provokes, throws new light on old responses and raises new questions.

One of the strengths of higher education is that it draws on theories from a range of disciplines such as psychology, sociology and philosophy (Ashwin et al., 2020). This enables academics to apply theories that they believe will be useful to help them

teach their students in different ways and that help them to understand disciplinary knowledges and practices. In proposing this, we suggest that engaging in the PGDip can help academics to make better sense of the complexity of teaching and learning by helping them to understand the teaching and learning problems that they encounter from multiple perspectives. Ashwin (2017) argues that theorising involves simplification. The ability to simplify is necessary given that the social world is complex and emergent, making it impossible to be known fully except through the application of simplified concepts and theories. Addressing educational problems involves a process of examining the different perspectives or theories and deciding which of them are most useful to help to solve the problem being addressed. To make this decision, academics need a good understanding of the theories and their assumptions about the social world. Having said this, it is important to note that even though a theory can be useful in highlighting concerns, it cannot be a panacea for all concerns in the social world. Different theoretical lenses highlight different aspects of the world while excluding others. Ashwin (2017) suggests that teachers can move between different theories to select the one that is most suitable to help them to explain their practice. Theorising goes beyond understanding theory; it involves selecting and applying abstract concepts to highlight particular aspects and interpret teaching experiences, critically reflecting on these and generating new insights. Engaging with theory in this way transforms reflective practice into a scholarly endeavour.

Role of PGDips

Formal programmes on teaching and learning in higher education, like the PGDip, provide structured opportunities for academics to integrate knowledge, theory and theorising into their teaching practices. These programmes bridge the gap between theoretical insights and practical application, enabling educators to navigate the complexities of higher education. PGDip (HE) programmes emphasise the interplay of educational knowledge and practice. Participants engage deeply with theoretical frameworks, linking them to real-world challenges in the classroom. This process fosters reflective and adaptive teaching, equipping academics

to respond effectively to diverse student needs and institutional priorities. By grounding teaching in evidence and theory, PGDip programmes promote scholarly teaching that is reflective, innovative, and impactful. Graduates of these programmes often contribute to the scholarship of teaching and learning (SoTL), advancing pedagogical knowledge and practices within their disciplines. The following section demonstrates, through an examination of chapters in the book, how theories and concepts play themselves out as participants engage in the programme.

Teaching in the PGDip context: embedding theory and pedagogical principles

In mass higher education contexts, the teacher's role is often backgrounded in policy documents about pedagogy and assessment and teachers' involvement in implementing teaching and learning activities is downplayed (Horrod, 2023). Horrod (2023) suggests that teachers and teaching are often portrayed in pejorative ways that undermine the importance of teacher specialisation or expertise. The PGDip addresses this tendency to sideline teaching by engaging explicitly with pedagogical principles and values and using a range of contemporary global and local higher education scholarship to inform teaching practice. Chapters written by PGDip facilitators and alumni in this volume are all supported by theoretical frameworks and pedagogical strategies gleaned from the various courses.

PGDip participants and alumni are encouraged to research their own teaching practices and develop identities as teachers of their disciplines alongside their researcher identities. The chapter in this volume by West, for instance, explores the concept of semantics as a dimension of Legitimation Code Theory (LCT) to demonstrate the shift in the researcher's gaze "from a disciplinary expert to that of a teacher of the discipline". Two chapters draw explicitly on Archer's theory of morphogenesis. The first by De Klerk et al., uses Archer's theory to track the "agential and identity shifts" experienced by one graduate of a PGDip, while the second, by Adams, showcases how the professional academic identities of a number of PGDip graduates were "shaped by the interplay between structural, cultural and agential enablements

and constraints" within the PGDip (HE) as well as within institutional and departmental contexts. Furthermore, Uys et al. describe how they have used Shulman's (1987) knowledge base categories as a lens to describe the kinds of teacher-education-specific knowledge learnt on the PGDip in their university. They argue that this framework "allowed us to evaluate how the PGDip has shaped us as professional educators in our disciplines by surfacing the knowledge competencies" needed by teachers in higher education.

The planning of PGDip teaching and assessment requires significant conversations (Olsson & Roxå, 2013) about pedagogical competence amongst course designers and facilitators about teaching and assessment challenges. Examples of these are how to engage participants in meaningful reading and writing in preparation for tutorials using reading response questions, how to enact the "flipped classroom" (Talbert & Bergmann, 2017), how to achieve a balance between content dissemination and active engagement and how to implement alternative assessment-for-learning practices in line with university policies and expectations. The PGDip pedagogy relies on local case studies that are empirical and reflexive. Many of the course texts focus specifically on exemplars from the Global South that call for contextually relevant, transformative teaching at universities. There is consideration of PGDip participants' knowledge and understanding of knowledge-making processes in their disciplines and the varied roles that they play in teaching and assessing students. The chapters in this volume by Campbell and Atemkeng demonstrate how educational knowledge can inform curriculum, including teaching and assessment practices in undergraduate and postgraduate classes.

In course planning processes, there is an attempt to give concrete meaning to processes of decolonising the curriculum and to promote diversity and inclusivity. Courses are supported by a critique of the prevailing student deficit model and the recognition that stand-alone generic programmes and interventions do not address the dynamics of the changing demographics at the university (Boughey & McKenna, 2021). The course pedagogy aims to help lecturers to find ways of working in their institutional

crevices such that they satisfy institutional demands, while at the same time widening those pockets of freedom (Jansen, 2024). The end goal of PGDips is to facilitate a shift in thinking where academics see their teaching practice as opportunities for solutions to teaching-related problems and scholarship.

Modelling teaching practice for learning-centredness

The modelling of good teaching practice in the PGDip has emerged strongly as a key pedagogical strategy. The course facilitators collectively explore ways of explicitly enhancing the congruence of learning outcomes, pedagogical strategies and assessment practices and explicitly emphasise reflective practice when designing aligned curricula and tasks. Significantly, teaching on the PGDip moves away from a focus on the performance of individual teachers to context-specific practices of teaching and learning (Boud & Brew, 2016). Facilitators design contextualised embodied activities that are built from practice as learning "located in settings of application". Leibowitz et al. (2017:201) point out the implications of a practice approach for learning to teach as "including all aspects that comprise practices, including time, space, artefacts, and opportunities for people to learn from one another, and seeing the responsibility to learn to teach, as distributed". The focus is therefore on creating an enabling environment for teaching and learning rather than prescribing ways of acting. Although the PGDip offers staff development in a formal class setting which involves scholarly and reflective reading and writing, it encourages a practice orientation where lecturers can learn by doing and interacting with others who teach within and across disciplines.

There is a strong focus on modelling teaching and assessment concepts and processes for understanding rather than for dissemination and acquisition (Ashwin et al., 2015). The centrality of a dialogical approach is highlighted, showing how the knowledge project is premised on critical engagement and the iterative process of constantly appraising ideas. Value is placed on participation and interaction as participants identify key pedagogical challenges in their disciplines and exchange ideas

and strategies with colleagues on the course. Facilitators respond to participants' divergent ideas and give new insights on topics and issues that might not have been considered. Padayachee et al. point out in their chapter that PGDip facilitators are required to "model their own reflective practices of curriculum negotiation by involving participants optimally".

Identity transitions

The teaching environment in the PGDip enables participants to move out of their disciplinary silos into a sharing space that helps them to re-conceptualise their identities as educators in the university. The shift from being a disciplinary expert to being a teacher in a discipline is captured in many chapters in this book on PGDips in Southern Africa. The chapter by Mashifana et al. highlights the limitations of subject matter expertise alone in enacting sound engineering education. The authors, lecturers in Chemical Engineering, reflect on the positive impact of the PGDip (HE) in nurturing their "holistic pedagogical effectiveness". They identify the pedagogy of care as the theory that helped them to become reflective practitioners focused on improving the quality of learning for their engineering students. A similar auto-ethnographic study by West uses Legitimation Code Theory (LCT) to investigate "the development of a disciplinary expert's gaze towards education". Drawing on Archer's theory (2004), De Klerk et al. track the journey of one PGDip (HE) alumnus to show the "temporal agential and professional identity shifts" that occurred as a result of participating in a PGDip. In a similar vein, the chapter by 'M'amosa 'Mateboho Evodia et al. explores the factors that gave rise to the "evolution of teacher identities within the context of the Postgraduate Diploma in Higher Education Programme at the National University of Lesotho".

Disciplinary teaching and learning

Over the years, PGDip course designers and facilitators have sought to ensure that course participants emerge from conversations in class ready to tackle teaching and learning challenges in their disciplines in a context of massification and resource constraints. PGDip participants are given opportunities

to develop an in-depth understanding of pedagogical approaches and to show evidence of shifts in their professional, pedagogical, and personal practice. They are presented with various frameworks like *decoding the disciplines* (Middendorf & Pace, 2004), constructive alignment and congruence (Biggs & Tang, 2011; Hounsell & Hounsell, 2007) and a tiered assessment plan for balancing low-stakes and high-stakes assessments (O'Neill,, 2023). Campbell and Atemkeng consider challenges such as the need to achieve constructive alignment in their courses as well as some of the attendant challenges with achieving it in practice. PGDip participants enrich the programme by offering useful paradigms and concepts derived from their own teaching contexts such as the "internal supervisor" used in the helping professions described in this volume. In their chapter, Graham and Masson provide insights into strengthening reflective supervision capacity in the PGDip by showing how the "internal research supervisor" can enhance the quality of the supervision process "in a more sensitive, complex, and theoretically informed manner". They argue that supervisors should learn to reflect on how to create "an individualized and developmental environment" for each student.

Creating a space for mutual sharing and discussion has enabled participants and alumni to reflect deeply on the disciplinary nature of teaching and learning and on how best to enact educational principles and practices in their teaching contexts. Uys et al. point out in their chapter that a key strength of the programme is its multi-disciplinary approach as participants "learn with and from diverse academics". It is unsurprising that so many of the chapters in this volume bring the nature of disciplines into the discussion of teaching and learning. There are chapters that focus specifically on the formulation of discipline-based PGDips in specialised areas of supervision and research. For example, Fru et al., in their reflection on PGDip (HE) supervision courses, highlight the limited focus on postgraduate pedagogy within the science disciplines. They argue for a "specialist PGDip course targeting the science postgraduate supervisor, supported by principles from humanities-based curricula" to enable contextually relevant approaches for science supervision. This would enhance the learning of specific forms of thinking required in their field of study.

Reflective pedagogical practice

Reflective teaching practice is a key characteristic that supports teaching in the PGDips. It requires a rethinking of deeply entrenched teaching practices and a paradigm shift away from long-held assumptions on the part of course facilitators and recognises first, that PGDip participants are not always proficient at "doing reflection" and second, that reflective practice is not cultivated or valued in some disciplinary contexts. The goal of instilling critically reflective practice has been integrated explicitly into the course pedagogy and assessment in most PGDips. Drawing on reflection scholars (Mezirow, 1981; Schön, 1987; Ashwin et al., 2015, 2020), facilitators have used thinking strategies, incisive questions and prompts to enable teaching staff to reflect on and re-conceptualise their course design, teaching and assessment practices. In some courses, participants are given questions to interrogate and carefully examine a particular teaching event or critical experience. Several chapters in this volume involve a deeply reflexive process of examining shifts in teaching identities and in re-thinking many of their assumptions about teaching and learning in their teaching contexts. In the chapter by Tshuma, course facilitators reflect on a collaborative PGDip showing how co-constructed activities can enable levels of deeper reflection compared to individual reflexivity.

The range of disruptions described in the context section of this chapter has given rise to new forms of reflexivity in responding to the world of ongoing innovations in digital technology. During these times, lecturers are required to make judgements on and interpret the demands of external requirements (Ashwin et al., 2015:52). Many lecturers have become more open to the transformative possibilities of pedagogically informed teaching and assessment by engaging critically in discussions about online and blended teaching approaches. They might recognise, for instance, the value of embedding reading and writing strategies in large classes where most students require academic literacy support to engage meaningfully with theories, concepts and processes. Resilient pedagogical practices (Thurston et al., 2021) have come to the fore for promoting constant adaptation and flexibility during disruptive times. PGDips create the space to raise

questions and debate the sustainability of resilient pedagogical approaches in the context of massification and neo-liberalism in higher education.

Learning-focused assessment practices

One of the major recent developments in higher education is the recognition of the central role that assessment plays in student learning. Collaborative innovations during the COVID-19 pandemic prompted the reformulation of programmatic and transparent learning-oriented strategies (Dison & Padayachee, 2022). Assessment modules are offered in all PGDip qualifications, but there is a common approach across courses to reformulating assessment tasks and promoting student engagement in line with an *assessment for learning* paradigm (Carless, 2015). *Assessment for and as learning* emphasise self-awareness and the process of learning, as opposed to focusing merely on its outcomes (Bloxham & Boyd, 2007). The process of working with authentic assessment tasks has enabled participants to apply assessment concepts, principles and frameworks in their own disciplinary contexts and to address the powerful culture of summative assessment that favours assessment for accountability. Diversifying assessment away from a reliance on the examination has become a contentious issue in universities and has been resisted with the rise of generative artificial intelligence. PGDip courses draw on scholars like Dawson (2023) to present an alternative position for rethinking anti-cheating approaches and to challenge perceptions of "trustworthy" traditional exams.

Flexible assessments have been integrated into PGDip courses to demonstrate the value of assessment choices and to centre issues of trust and responsibility-sharing (O'Neill, 2023). Based on practice-based approaches to assessment for learning, PGDips (HE) problematise traditional markers of success and rigid marking practices and propose strategies for forging strong student-lecturer partnerships. Effective and varied teacher feedback is regarded as a key lever that can be modelled to shift the nature of learning (Hattie, 2015) as students develop an understanding of quality, are better able to apply feedback, and become more autonomous. The intention of incorporating

authentic tasks is for participants to rethink their teaching and assessment purposes away from the emphasis on methods that promote a high-stakes, "assessment for marks" culture. West's chapter is based on his experience of participating in an authentic assessment task in the PGDip that required active engagement with assessment challenges in disciplinary contexts.

Evaluating teaching

Teaching on the PGDip does not always lend itself to summative evaluation processes with smaller class sizes, but facilitators have implemented several formative evaluation and reflective strategies to elicit feedback and inform their reflective judgement. Through this process they have identified student and teaching-related areas that can be strengthened, and they are prompted to think deeply about what they are trying to achieve and what assumptions and values support their teaching and assessment practices. Traditional forms of evaluation often yield limited feedback on the impact of the courses in achieving transformative shifts in perspective and praxis. Atemkeng's chapter shows how he used evaluation data to inform curriculum design in a programming course in Mathematics. Padayachee, Dison and Ganas in this volume, as PGDip course designers and facilitators, explain the difficulties in demonstrating the impact of professional learning programmes. They propose the "3P Evaluation Framework" "as a mechanism to capture and illustrate the wide-ranging impact of the PGDip on teaching practices, agency, and advocacy, as well as transitions in academic identity".

Concluding notes

This edited collection, written by PGDip facilitators and alumni, recognises the value of scholarly and transformative approaches to academic practice in higher education. The analysis of different aspects of contextually relevant professional learning programmes highlights the complexity of translating professional expertise into accessible and appropriate learning experiences for students. The book showcases the critical reflections of academics who participated in PGDip programmes and who are re-imagining new ideas for engaging meaningfully with students in diverse

learning modes and modalities. Student learning is at the heart of these contemplations as the chapters in the book offer a rich account of strategies and approaches for creating an enabling environment for student engagement and for all students to have an equitable chance to succeed.

The chapter has argued for the importance of postgraduate diplomas in higher education in systematically helping academics to become reflective scholarly teachers in a constantly changing and complex higher education system. Given the importance of the PGDips in higher education, designing curricula presents unique challenges attributable to the multidisciplinary nature of higher education studies. Course designers must carefully articulate the knowledge and skills that they aim to impart and model the practices that they advocate. This approach ensures that participants gain meaningful access to educational knowledge and its practical applications.

The chapters in this book present possibilities for rethinking and redesigning teaching and assessment strategies to promote diversity and inclusivity. Engagement with the Scholarship of Teaching and Learning (SoTL) is a key learning outcome of many of the PGDips, and is a process through which participants develop agency as critically reflective teachers. The articles in the book bear testimony to this.

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Chapter 2

The transformative influence of a PGDipE (HE): A case of agential morphogenesis

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Introduction

> I went in thinking students are going to question who I am, which is very personal and difficult to deal with and my response has to be 'I am your teacher. You can reject

> everything else about me but by the end of this course you need to have learnt something because I have made it so damn difficult for you not to learn about it'.

The above statement provides a momentary glimpse into a PGDipE(HE) (hereafter, the PGDip) graduate's personal and emotive journey in becoming a university teacher. The conviction and confidence of "because I have made it so damn difficult for you not to learn" is what attracted us to this individual's case and the observed transformative possibilities of the professional learning of academics as teachers.

The South African higher education context has focused increasing attention on the professional learning of academics as university teachers in the last decade (e.g. Leibowitz et al., 2017; DHET, 2018; Benvenuti et al., 2022a). A large study of eight South African public universities conducted between 2011 and 2016 recommended "that a policy on professional learning regarding the teaching role be written" (Leibowitz et al., 2017:15), which happened the following year (see: DHET, 2018). Leibowitz et al. (2017) tied this recommendation to some of the core tenets set out for higher education in the country, such as addressing the learning needs and aspirations of individuals and contributing to the prosperity and economic growth of society (Leibowitz et al., 2017), amongst others. While such studies make immensely valuable macro-level contributions to the literature about the professionalisation of teaching, there is merit in exploring the experiences and contributions to be gained from individual university teachers at a micro level as is demonstrated from the quote above. An analysis of agential change at the micro level can provide insight into how and why a PGDip can contribute to the professionalisation of teaching in higher education, but also provide insight into why it may not always succeed. This chapter aims to make such a contribution to the literature on enhancing university teaching in South Africa.

To achieve this, the authors examine the temporal agential and professional identity shifts that occurred for one alumnus (Linda) as a direct consequence of participating in a PGDip. Margaret Archer's (1995, 1996, 2000) work on agency is used to

enable and guide this examination. The chapter interrogates the agential and professional identity shifts that Linda experienced, in comparison to other alumni whose shift in agency appears less demonstrable (see Benvenuti et al., 2022a). Making meaning of these shifts is important, as Archer (2002:19) explains that agency denotes:

> … someone who has the properties and powers to monitor their own life, to mediate structural and cultural properties of society, and thus to contribute to societal reproduction or transformation.

If one ties this potential to mediate and transform back to the core tenets of higher education shared earlier, it becomes evident that individuals (as much as collectives) have the potential to advance higher education and its goals, gaining insight into why some realise this potential is the core aim of this chapter.

PGDips in their various forms are intended to contribute to the professionalisation of teaching in higher education, which in turn should contribute towards transformation of the sector to advance student success. The University of the Witwatersrand (Wits) is a research-intensive public university in South Africa that launched its PGDip in 2015. Since then, more than 120 alumni have graduated, with cohorts from Wits and Walter Sisulu (WSU) universities now enrolling for the qualification annually. The programme runs part-time over two years and consists of three core courses and one elective. Authentic assessment and reflective practice support the PGDip curriculum considerations, thereby encouraging Linda to be introspective in their own practice (Benvenuti et al., 2022b).

A social realist view of agency

The notion of agency arises often in higher education literature, usually in relation to student agency (e.g. Case, 2015; Williams, 2012; Nudelman, 2021), the complexities of higher education and how different forms of agency are entangled within it (e.g. Williams, 2012; Leibowitz et al., 2017; Boughey & McKenna, 2021; Nudelman, 2021). It also considers the transformation of agency

and agential capacity as a means of social advancement (Case, 2015). Case (2015:843), for example, asserts that:

> [i]n the arena of higher education, we are centrally focused on the morphogenesis of student agency; we aim for students to leave higher education with different knowledge and capacity for action than that with which they entered.

The implication is that students exit university and enter society with the capacity and knowledge to engage with societal problems actively and expertly, ultimately aiming to solve those problems - thus, transforming society for the better. Similarly, we might expect alumni of a PGDip to have developed agency in their teaching roles. Not only can teacher professionalisation promote confidence in the teacher's own professional outlook (Ödalen et al., 2019), but it also enables better teaching, which is crucial in challenging contexts such as those found in South Africa. The country's higher education sector faces a range of complexities (Boughey & McKenna, 2021), including social, political, and economic challenges (Leibowitz et al., 2017). The PGDip emphasises these complexities and contestations in relation to teaching and curriculum, which means that Linda was given the tools needed to navigate and transcend challenging teaching and learning environments. Understanding these tensions provides the university teacher with more nuanced insights into the challenges faced by students, with the aim of bringing about quality teaching, which has been proven to be crucial to ensuring student success (Mangum, 2017).

Much of the work on agency has its roots in sociological theory and theorising (e.g. Pickering, 1993; Archer, 1996; Emirbayer & Mische, 1998; Archer, 2002; Shapiro, 2005). Emirbayer and Mische (1998) highlight many of the complexities and ambiguities associated with the concept, before offering their own sociological definition (Emirbayer & Mische, 1998:970) and arguments pertaining to it. In this chapter though, we draw particularly on the extensive contributions to the theorising of agency offered by critical realist Margaret Archer, whose broader work on social realism is often used in educational contexts (e.g.

Williams, 2012; Case, 2015; Leibowitz et al., 2017; Boughey & McKenna, 2021).

From a social realist perspective, one of the affordances of Archer's approach is that it separates agency from structure and culture, thus circumventing a clamping together of all three (Archer, 1996:87), which is known as central conflation in sociological terms (Boughey & McKenna, 2021:23). This "theoretical separation of the parts and the people" (Boughey & McKenna, 2021:23) is what Archer calls *analytical dualism* (Archer, 1995:15, 1995:165-194). It allows one to make meaning of the ways in which agency emerges and changes over time in relation to structure and/or culture (and their interaction). The separation of parts and people is an important distinction and central to the argument that we make in this chapter, where we track the temporal agential shifts experienced by Linda.

In social realist terms, agency encompasses "the domain of human action and interaction" (Case, 2015:843). Archer separates agency into primary agency and corporate agency (Boughey & McKenna, 2021). She explains that primary agents can reflect on their status and make choices in response to external forces. Archer asserts that everyone is a primary agent, but not everyone may or need become a corporate agent. Corporate agents, through engagement with others, have the potential to drive social change (Archer, 2020; Case, 2015). Williams (2012:309) explains that:

> Corporate Agents shape the context for all agents, although not always as anyone wants. Primary Agents live within this context, but their actions and responses to society's changes, change the situation for Corporate Agents as well.

Corporate agents, with whom primary agents interact, may therefore support the emergence of professional identity. In turn, a primary agent may influence their surrounding structures and cultures, and may be an intrinsically active agent (Williams, 2012:309) but may choose not to take part in the "systemic organisation and reorganisation" (Brock et al., 2017:25) of such cultures or structures, therefore not becoming a corporate agent. In this chapter, we focus in particular on the primary agential

shifts experienced by Linda, thus reserving an exploration of corporate agency for another time. Nevertheless, we may refer to corporate agency in relation to primary agency from time to time in the discussion section. To track Linda's primary agential shifts over time, we use a tool offered by Archer (1995), which she calls the morphogenetic framework.

Archer's morphogenetic framework

Archer's (1995) morphogenetic framework provides a tool with which to track change or stasis over time. The morphogenetic framework consists of four temporal periods making up three distinct phases (see Figure 2.1).

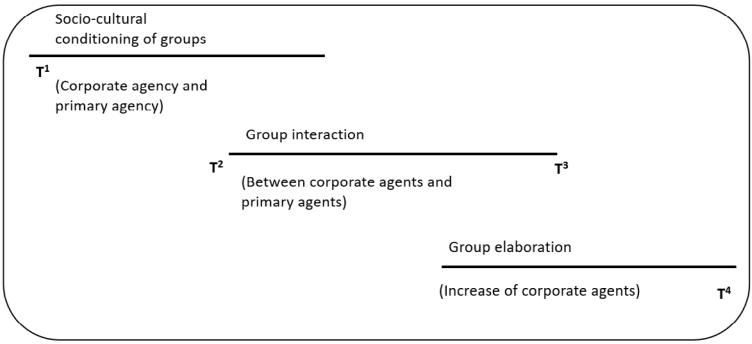

Figure 2.1: Visual representation of Archer's (1995:264) morphogenetic framework related to agency.

The first phase (T^1) considers the agent within their already-established context and background (Case et al., 2017:280). Archer refers to this as the conditioning phase. In this chapter, our T^1 considers the prevailing conditions of Linda in the period leading up to the start of the PGDip. **The second phase** (T^2 – T^3) documents how the primary agent socially interacts with corporate agents and other primary agents during the period under investigation; referred to as the social interaction phase (Case et al., 2017:280). Our T2 - T3 considers how Linda navigates the structured coursework component of the PGDip over an 18-month period, where structure, culture, and agency interact. **The third phase** (T^3 - T^4), which Archer terms elaboration, reviews

the last six months of Linda's PGDip experience. Unlike the first 18 months that are carefully structured and driven by course work, in this phase Linda is given the freedom to research a topic of interest in the research course (an elective) of the programme. Here we consider what, if any, agential changes took place because of the social interactions that occurred during phase 2 (Case et al., 2017:280). It is worth noting that such personal morphogenesis is an ongoing and continual process (Brock et al., 2017:32), with this study taking a snapshot of one morphogenetic cycle in Linda's life. Further, the focus of Archer's (2000) full morphogenetic model is to make meaning of the emergence of personal and social identity (Case, 2015:849) and the positioning of professional identity within this.

Personal identity, social identity and professional identity

The literature addresses two broad aspects of an individual's identity; personal identity (PI) (e.g., a person's own perception of themselves) and social identity (SI) (e.g., external perceptions of the individual by the world at large, in different contexts) (Archer, 2005; Beech, 2011; Kreber, 2010). Professional identity (PFI) can then be viewed as a part of one's SI (Quinn, 2006; Kreber, 2010), as will be explained below.

Archer (2000) explains the morphogenesis of agency as involving personal and social dimensions of identity (see Figure 2.2). She describes this as:

> ... the sense in which the mature emergent person continually re-inspects the 'I', the 'me', the 'we', and the 'you', which have been part of his or her personal morphogenesis, and then applies his or her autonomous personal powers to pursue their replication or transformation. In the process they actively contribute to their own ongoing personal development ... (Archer, 2002:19).

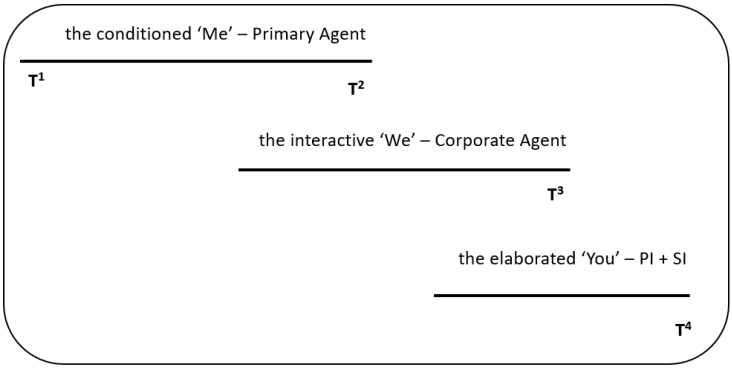

Figure 2.2: "The emergence of personal and social identity" as per Archer (2000:296).

As an individual (with a pre-conditioned existent PI) interacts and engages in the world around them, they are constantly adapting, changing, and reconstructing that PI in light of the external social influences with which they are faced. Such constant reconstruction is influenced from two directions: internal and external. Internal influences made up of personal motivations and dialogues within the self occurs actively through iterations of reflection and reflective practice. External influences arise from dialogues with others and interaction with the structures and cultures around the individual. These internal and external dialogues develop the individual's PI (Beech, 2011).

In turn, what the individual chooses to show the world in how they interact, as well as how the world views them, constitutes the emergence of their SI. In other words, "... what people commit themselves to in society is the key to their social identity ..." (Archer, 2000:83). Hence, for purposes of this chapter, professional identity (PFI) is viewed as being part of SI (Quinn, 2006:51), which Kreber extends into the occupational context of academia (2010:172-173). This affords the ability to examine university-teacher identity as separate from a broader academic identity, which can be multi-dimensional and fragmented, as explained by Kreber (2010:173). When focusing on the teacher identity for an academic, it is important to view such an identity as dynamic and changing, depending on the level of agency an individual is willing to give to their teacher identity. Academics

need to split their time and focus between often competing and equally demanding aspects of the broader academic identity (inter alia research, supervision, and academic citizenship). It is by using agency within their professional and social settings that an academic actively and explicitly hones and shapes their teacher identity. As Beech describes:

> For Ybema, Keenoy, Oswick, Beverungen, Ellis and Sabelis (2009) this is a version of the agency-structure dialectic in action, that is, the process through which the individual agent constitutes and is constituted by their social setting and the discourses available to them and those around them (Beech, 2011:286).

Fiol (2002), as cited by Beech (2011), demonstrates the dynamics between a before and an after identity when one actively puts effort into the development of such an identity. Often this active shaping of one's identity can be viewed as the "dialogue in which the inner self-identity is influenced by the outer social identity" (Watson, 2009; Beech, 2011:286). This chapter highlights how Linda's personal agency to better their own teaching, and the social interactions and dialogues held in the PGDip, have led to a profound and established university teacher PFI shift.

We illustrate the interconnectedness of SI, PI and PFI in Figure 2.3. The areas of intersection are for illustrative purposes only as the degrees of overlap are unique to each individual. The central premise is that the development of all three identities is, in one way or another, intertwined.

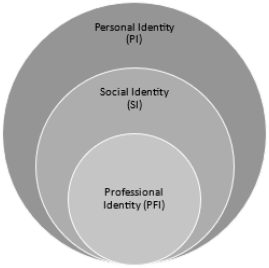

Figure 2.3: The interconnectedness of personal identity (PI), social identity (SI) and professional identity (PFI)

Methodology and data

This chapter reports on a case study of Linda, exploring their personal agential morphogenesis as a result of completing the PGDip programme. The case study is nested within a larger study in which alumni were initially canvassed through an online questionnaire and follow-up focus groups. Linda emerged as an interesting case as they appeared to exhibit particularly noteworthy agential morphogenesis as well as a strong shift in identity.

Case studies provide an opportunity to examine cases of specific interest, enabling a more detailed understanding of specific phenomena or situations (Babbie, 2013:338). While this specific case may be different to others we might have chosen to examine, Stake (1995:3) would refer to it as an intrinsic case that has value in its "particularity and complexity". It provides an opportunity to engage deeply with one case, thus affording the possibility to gain micro-level insights through identifying and examining activity within the specific context. The intention with a case study is not to generalise but to deepen understanding. This is achieved through deliberately employing thick description, in which sufficient depth and context is provided, allowing readers to determine transferability to contexts with which they are familiar (Lincoln & Guba, 1986; Rule & John, 2011).

The case is informed by data that was collected in numerous ways[1]. The full set of data, comprising questionnaire [Q], focus group [FQ] and interview [I], was analysed using Archer's morphogenetic framework. Up to this point, Linda was deliberately excluded from discussions and analytical work to ensure credibility of the research process and study. They were then invited to engage with our analysis and interpretation, with the view to garner more nuanced insights. We anticipated that this would allow us to move beyond the interpretation of data by researchers, to a more in-depth analysis of findings (Probst, 2016), thus, giving the case study unique dimensions.

1 Ethical clearance for this study was obtained through the institutional Human Research Ethics Committee (Non-Medical) (protocol number: H21/06/02), prior to the commencement of data collection.

The involvement of the case subject as participant researcher, albeit only towards the end of the process, provided a means through which to achieve authenticity of perspective (Lincoln & Guba, 1986). By allowing Linda to verify interpretation of the data, researcher bias could also be minimised (Maxwell, 2005). This is commonly employed in ensuring the trustworthiness of qualitative research (Merriam, 2011). This collection of data via multiple approaches and engagement with the data over an extended period of time supports credibility in qualitative research (Lincoln & Guba, 1986; Patton, 2002; Maxwell, 2005).

Findings and discussion

Archer (1982:468) allows for the morphogenetic framework to be adapted to the situation under review and allows for "breaking up the flows [of the Ts] into intervals determined by the problem in hand". Based on this premise and drawing on the preceding sections, the discussion that follows traces Linda's agential morphogenesis and the development of their PFI as a university teacher throughout the PGDip. In Figure 2.4, the agential morphogenetic dimensions of Figure 2.1 and the emergence of PFI introduced in Figure 2.2 are integrated to provide a framework that guides our analysis and discussion of the data.

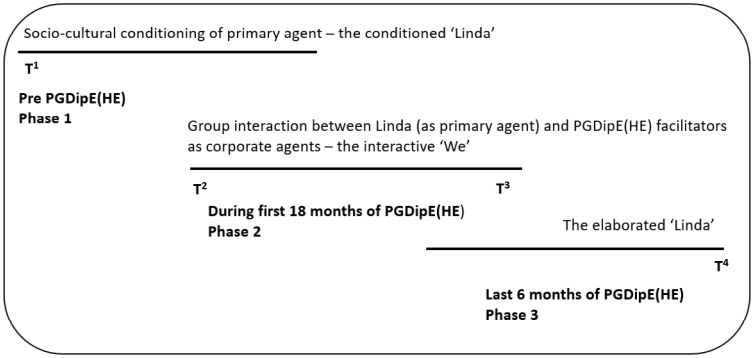

Figure 2.4: Integrated depiction of Linda's agential morphogenesis and emergent professional university teacher identity.

Phase 1 (T^1): The conditioned me

Linda, a white English-speaking South African, received their PhD in 2015 and immediately commenced with the first of two post-Doctoral research positions. In 2016, Linda enrolled for select components of the University of South Africa (Unisa) Postgraduate Certificate in Education (PGCE) to explore interests in teaching[2], before moving onto their second post-Doctoral position. Linda started working at Wits on contract at the level of Associate Lecturer in January 2018, before being made permanent at the level of Lecturer in November 2019. During this time, Linda voluntarily completed a few short teaching and learning training courses through their involvement in the Wits Early Career Academic Development programme (ECAD), before enrolling for a PGDipE(HE) in January 2019. We view these milestones as taking place during the T1 phase of the morphogenetic cycle, prior to Linda registering for the PGDip (see Figure 2.5).

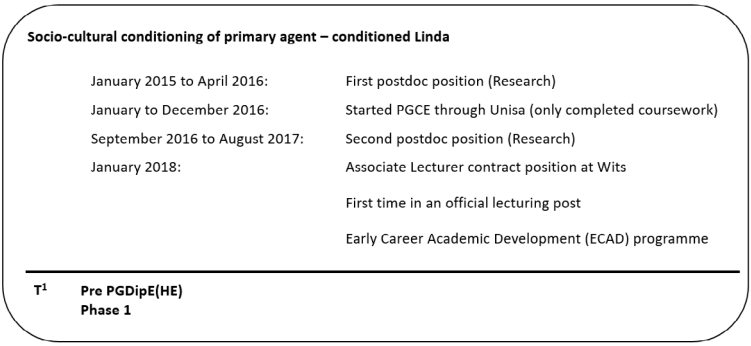

Figure 2.5: Linda's timeline at Phase 1 (T^1)

Initially, (as an early career academic) Linda's identity had largely been that of a researcher (through Master's, PhD, and post-Doctoral programmes). However, we argue that a peripheral interest in teaching was already evident in Linda's T1, for example their enrolment in the Unisa PGCE prior to receiving their Associate Lecturer post. It was only after receiving an Associate Lecturer fixed-term contract that Linda was first required to teach. They observe that they:

2 The Unisa PGCE was not completed.

> really loved [...] teaching and [it] made me actually think that this is something, yeah, that's when my first active decision to be an academic happened. [I]

Even at this early stage in the morphogenetic cycle, we observed the conditioned Linda presenting with an interest in teaching. Linda draws on their primary agency to continue to seek out professional learning opportunities linked to teaching, which (as shown in the quote above) is tied to their drive to become an academic.

Once at Wits and while still appointed at the level of Associate Lecturer, Linda chooses to do teaching and learning courses as part of the ECAD programme, through the university's Centre for Learning, Teaching and Development (CLTD):

> I am interested in higher education and, as a new lecturer, was looking for training. I had previously done online courses and workshops. [Q]

This active "seeking out" of teaching courses addresses the way in which Linda embraces the identity of an academic not only in the realm of research, but also in teaching. It also emphasises strong primary agency in terms of exploring opportunities to improve their chosen career. Strategically, they were already thinking of applying for a full-time post versus only being on contract, and these courses formed part of that strategy:

> I think just having firstly, a really good impression of what the CLTD was doing [i.e., ECAD programme], that's one of the reasons why I took the PGDip, but it also exposed me to the really interesting side of teaching and not ... you know, a bit more of theory and thinking about teaching [sic]. Not just how to do it. [...] But then strategically, I was also on a contract position, [...] of how to make myself [as] employable as possible. Especially on an international level where a lot of [...] departments are now requiring some kind of teaching training.

In addition to reiterating Linda's interest in teaching and their strategic intent to secure long-term employment, the quote above highlights Linda's awareness of the international move in higher education towards the professionalisation of university teaching.

Moreover, we can already see at T^1 (in the pre-conditioned phase) that Linda demonstrates strong primary agency linked to their interest in becoming a university teacher. The short bursts of social interactions with others passionate about teaching that occurred in the CLTD and ECAD spaces, can be viewed as catalysts to Linda's teacher identity formation (Kreber, 2010:172). They tentatively start immersing themself in the process of socialisation into the teaching arena. This presents as the first shift in Linda's PI, which appears to be evolving to accommodate the emergent university-teacher dimension. We observe Linda viewing teaching as a major part of being an academic, as they begin to consider academia as a viable career path:

> [T]eaching has made a big difference for me. A lot of my hesitations of being an academic [...] is the literal ivory tower. You sort of disengage from the world. [...] teaching is the engagement that we get with the world. [...] So, for me teaching was... I think I was itching to do something entirely not theoretical, and teaching has given me that opportunity. [I]

We posit that, even at this early stage in the morphogenetic cycle, Linda begins to think of themself as a teacher in addition to being a researcher. Our findings, similar to Leibowitz et al. (2012), indicate that intrinsic motivations are the primary driving force behind taking the active step to focus on teaching. Linda presents with strong primary agency at the start of the morphogenetic cycle tracked in this chapter, and an interest in teaching and in growing their identity as a university teacher.

Phase 2 (T^2 – T^3): The interactive we

In this phase we observe Linda interacting with facilitators, peers, and their own students. Archer (1995) explains that group interaction occurs between corporate agents (i.e., PGDip

facilitators) and primary agents (i.e., PGDip participants). In Linda's case, it is this engagement with others towards a common purpose that helps them acknowledge and develop their university teacher identity. These social interactions began in year one and continued into year two of the PGDip (see Figure 2.6).

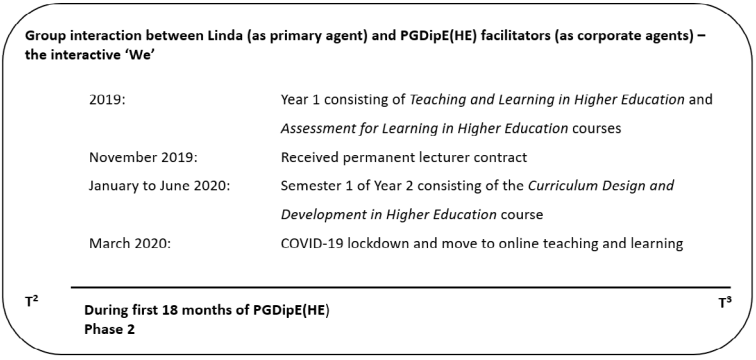

Figure 2.6: Social interaction throughout the four courses of the PGDip (T^2 – T^3).

The PGDip helped to build Linda's confidence as a teacher by equipping them with the knowledge and skills needed to succeed, thereby strengthening their agency and enabling them to make changes within their own practice:

> … the PGDip has definitely framed how I think about my courses as coherent wholes, where alignment in all forms is my standard approach. [Q]
>
> I thoroughly enjoyed the PGDip. I found it intellectually engaging but also practically relevant, where I was forced to implement things directly into my own teaching as part of the programme. [Q]

From these quotes it emerges that the PGDip served as a containing structure that supported Linda's interaction with others engaged in a shared undertaking. While Linda remains a primary agent, they interact with other primary agents (i.e., peers) and corporate agents (i.e., facilitators of the PGDip) as per Figure 2.4. This signals another shift in their PI, as they begin

to make changes to their practice and the way that they think about teaching.

The second year of the PGDip overlays with that of the COVID-19 pandemic and the challenges associated with a sudden move to online learning:

> I was halfway through when we went into lockdown, and the camaraderie amongst my class at the time was unexpectedly helpful in coming to grips with our changing situations - a proper community of practice in action [...] The PGDip has been especially invaluable with coming to grips with online teaching, but I have no doubt that I'd have the same opinion even if the pandemic hadn't happened. [Q]

The small community of practice that had formed within the cohort allowed the group to "come to grips" with the pandemic and to adapt to teaching online. Their weekly meetings emerged as a valuable support mechanism, demonstrating that the social interaction within the PGDip moves beyond just interaction with the facilitators and extends to interactions with peers. Together, they were able to develop a sense of agency for the then-unknown complexities of online teaching.

Furthermore, Linda demonstrates strong primary agency in how they perceive the PGDip as having equipped them to deal with the challenges posed by the pandemic:

> Off the back of the knowledge and skills I had already gained through the PGDip, I have found the move online to be well within my grasp. I haven't just been trying to keep my head above water but have been trying to capitalise on the platforms available to design effective pedagogy. [Q]

A particularly important shift that we have observed in Linda's PI, occurred during the *Curriculum* course in Semester 1, 2020 (see Figure 2.6). A condition of Linda's permanent appointment in November 2019 (see Figure 2.5), was the teaching of a particularly

challenging course in Semester 2, 2020, which led to internal turmoil on how to approach this course:

> The course [...] was actually a particularly challenging course in terms of the politically charged nature of the content and my positionality as a white lecturer. As someone who struggles with conflict, I was anticipating and dreading pushback from students, which did in fact happen. However, I approached the course by focusing on the pedagogic elements, where the *Curriculum* course was particularly useful, and ultimately was able to deal emotionally with the pushback because I was confident in my pedagogical role, even if not in anything else. [Q]

We view this as Linda grappling with internal dialogue as their PI evolves (Beech, 2011). They imagine systematically how they will be perceived, how their positionality as the lecturer might form part of a "hidden curriculum" that could alienate students, and what that will mean for their teaching and for student learning. The PGDip brings awareness of the social, cultural, and economic hardships faced by students in South African higher education and provides tools for teachers to use in response to their students' needs. Encouragingly, the PGDip appears to have given Linda the confidence and agency to transcend such contextual challenges. The *Curriculum Design and Development in Higher Education* course in particular, emerges as most beneficial in navigating the turmoil. Linda observes:

> ... that *Curriculum* course really solidified how I was approaching it, in such a way that I could now teach a course that I believe that I should not be teaching at all. [FG]

This feeling of empowerment in Linda's use of agency has a strong effect on their identity creation as a white South African teacher, despite knowing that they may receive politically motivated pushback from students. In summary, the external dialogue with facilitators and peers contained within the PGDip, has enabled and influenced Linda's internal dialogue, thus strengthening the

coming together of their PI and SI (Archer, 2000). Linda "actively contributes to their own ongoing personal development" (Brock et al., 2017:32), thus demonstrating active primary agency as they shift towards the elaborated "You" (see Figure 2.2) and embracing a strong teacher PFI.

Phase 3 (T^3 - T^4): Agential elaboration

Linda's PGDip journey culminates in the final semester of the programme as demonstrated in Figure 2.7.

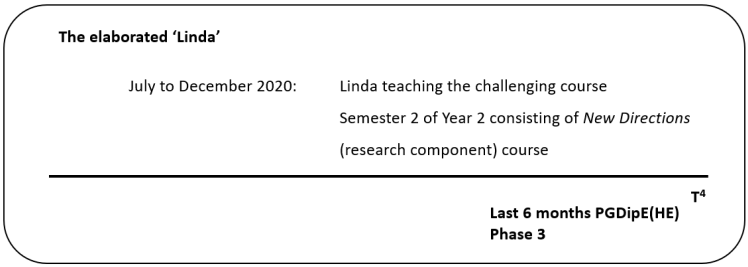

Figure 2.7: A snapshot of Linda at the end of this morphogenetic cycle.

As Linda approaches T^4 of the morphogenetic cycle (see Figures 2.6 and 2.7), they have reached the point where the challenging course mentioned earlier is being taught. Linda explains:

> I put into place a number of things that the [PGDip)] programme had made me think about, from progression of content to structure [...] to assessment. For instance, I changed my assessment structure quite drastically to what is usually used in my discipline and adopted some techniques from a Writing Intensive approach. I wouldn't have been able to manage the course without the help of my tutor because the workload was onerous, but overall, it's one of my most successful courses, both in terms of student engagement and student achievement. [Q]

We observe Linda's confidence in their ability to have made pedagogical and assessment choices to deliver a course which they initially felt they should not be teaching but now deems successful.

Student feedback and interaction also play an important part in the strengthening of Linda's PFI (Van Lankveld et al., 2017:331), which in turn bolsters their SI. Positive student feedback assists in strengthening their agency and teacher identity formation:

> ... it was good feedback which I think was just so wonderful to get. [...] So, it was how do I then gain trust, such as being their lecturer [...] And one of the students in there, in one of their early assignments was quite belligerent, saying 'who the hell are you?'. By the end of the class, by the end of the course, his final essay, his exam essay, he was referencing one of my papers [...] So, that for me was: forget the formal evaluation, I managed to win over a student who was actually not prepared to take me seriously as a lecturer. [I]

Beech (2011:286) reminds the reader that "... social identity consists of projections of others towards the self, projections of the self towards others, and *reactions to received projections* [emphasis added]." We argue that students' reactions to Linda's teacher identity, however diverse these may have been, elicit a positive response from Linda, thus strengthening or validating this new dimension to their SI, and by extension, to their PFI. This addresses reflection in which Linda "considers the views of others" (Beech, 2011:290) and how those views are internalised by the self in the culminating of a strong teacher PFI:

> ... and for me that is what I have absolutely no doubt about is that I am the teacher here. So, I can own that and the curriculum ... [I]

The PGDip gave Linda the power to be a confident teacher with a strong PFI within a socially, culturally, and politically charged classroom. As demonstrated by their opening quote "you [the students] can reject everything else about me", Linda nonetheless felt well-equipped to teach their students "because I have made it so damn difficult for you not to learn about it".

Linda also acknowledges the role of the PGDip in helping them to achieve a strengthened PFI as a university teacher. Linda asserts that:

> ... the PGDip has been invaluable in developing my teaching practice, which is not something that one is just born with [...] I am a competent educator. I am confident in my role and well equipped to take on new challenges. It's worth noting that my confidence in the role has enabled me to tackle things that I might otherwise have been overwhelmed by. [Q]

We view this as evidence of agential elaboration at the end of the morphogenetic cycle tracked in this chapter, as Linda emerges as a confident, scholarly university teacher at T^4. This is in agreement with Archer's (2000:11) assertion that "[s]trict social identity is achieved by assuming a role(s) and personifying it, by investing oneself in it and executing it in a singular manner." We argue that Linda's interest in and passion for teaching has led to the development and emergence of a strong teacher identity which is attuned to the needs of students. Linda has embraced their PFI and consciously organises their classroom practices according to what they learned throughout the PGDip, thus personifying the role of a scholarly university teacher and highlighting student success.

At the same time, Linda retains fluidity between their teaching and research identities (Beech, 2011:286), as they demonstrate an awareness of the currency of promotion within a research-focused university. Nevertheless, they still find time to invest the requisite emotional effort to pursue their passion for teaching within the research-intensive context of the university. When asked directly whether they see themself as a teacher or a researcher, they state, "maybe I just waver between the two" [I], which echoes Archer's (2000:12) observation that "[t]he self, in solidarity, must determine whether and how to project forward its existing social identity, according to the priority which it is assigned within the overall personal identity". We contend that even though Linda is fully aware that academia requires teaching and research and is comfortable straddling both aspects, they are

able to deliberately prioritise the teaching identity within their personal identity.

While much of the movement tracked through the cycle focused on Linda's PI growth, it is at this point that we observe Linda's evolved SI emerging, as they have built the confidence to show the world what they have learned. By confidently and successfully executing the challenging course, Linda asserts their scholarly teacher SI, and by extension, their scholarly teacher PFI. Ultimately, we observe an elaborated Linda at the end of the morphogenetic cycle.

Conclusion and further research

In this chapter we have tracked the agential and identity shifts experienced by one graduate of a PGDip. The conditioned Linda at T^1, although exhibiting strong primary agency and an interest in teaching, has not yet acquired the scholarly-teacher confidence or PFI that we observe at T^4. The PGDip emerges as an enabling structure that affords Linda opportunities to interact with peers and facilitators, thus creating a safe space to explore their emerging identity as a scholarly teacher. This is corroborated in the literature, which shows that being part of a staff development programme strengthens teacher identity (van Lankveld et al., 2017:330). Linda's PFI was honed through the social interactions with corporate agents and peers within the PGDip, thus reaffirming the literature which advocates that identity-building takes place in a socio-cultural setting (van Lankveld et al., 2017:326; Beech, 2011).

Towards the end of the two-year PGDip, we see Linda enact confidence and practise what they have learned throughout the programme, when they develop and teach the challenging course that they had initially thought they should not be teaching. As Linda describes in the quote at the beginning of the paper, "You [the students] can reject everything else about me but by the end of this course you need to have learnt something because I have made it so damn difficult for you not to learn about it." We posit that Linda's morphogenesis during this particular morphogenetic cycle offers a case of one novice university teacher who morphs into a scholarly university teacher. The professionalisation of their

teaching practice can in turn enable student success by making it "so damn difficult" for the students not to learn. Making meaning of the actions that Linda took, the enabling structures that they encountered, and the changes that they have undergone, could assist others within the South African higher education sector to realise similar shifts from novice to professional university teacher - or in the case of academic developers, create the opportunities for others to do so. Yet the study is not without its limitations.

While the focus in this chapter has been on Linda's agential and identity morphogenesis, the analysis remains confined to a single case. The authors have certainly observed that for other participants in the study, the experience may have been quite different. Further explorations could document more cases to develop a range of examples of how PGDips enable or constrain the agency of those who enrol for them, which in turn could help inform how university teacher professionalisation is realised. Congruently, conducting additional morphogenetic analyses to document the experiences of cases post-completion of a PGDip would also be useful. Our data appears to suggest that the progress and shifts experienced during their studies may, for a variety of reasons, not be sustained (or may become more difficult to sustain) once candidates have graduated. Finally, this chapter touched only briefly on the notion of corporate agency, another complex dimension of Archer's work. In subsequent work, whether nested within this study or as part of other research, potential connections between the PGDip as a container for university teacher advancement and the emergence of corporate agency across micro, meso and macro levels, could be explored. Such an investigation could offer valuable insight into the ways in which corporate agency may be harnessed to enhance university teaching and, by extension, student success. Insights of this nature can be particularly valuable in contexts where a culture of research continues to dominate over teaching and learning, thus allowing opportunities for meaningful shifts in the way that teaching is perceived and valued within higher education contexts.

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Chapter 3

Professional academic identity development: The significance of the agency, structural-cultural nexus

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Professional academic Identity formation: Setting the scene

I locate my discussion in discourses on academic development (AD)[1] theorising lecturers' (faculty's) participation in professional development[2] initiatives and the formation of their professional identities as teachers in higher education. As a vignette, my discussion reports on a snapshot of the data from a more extensive qualitative case study exploring the interplay of the structural, cultural and agential conditioning mechanisms (see below for a detailed explanation) in the emergence of lecturers' professional academic identity. This vignette explores one lecturer's (Mike's)[3]

1 In international higher education contexts, AD is known as Educational Development (ED). The terms Academic Development (AD) and Educational Development (ED) are used interchangeably in the literature.

2 Though some scholars distinguish between the terms "professional development" and "professional learning" (Van Schalkwyk et al., 2015), I have chosen to use the former term throughout the chapter given its general used in the South African and international higher education context.

3 Upholding confidentiality and anonymity, I use pseudonyms to protect the identity of my research participants. Unless indicated

mediation of prevalent social contexts to account for the formation of his professional academic identity. For consistency,[4] I use the term professional academic identity to refer to lecturers' identities as teachers in higher education.

Worldwide, AD practitioners like myself conceptualise, coordinate and facilitate professional development initiatives to support lecturers' teaching in diverse learning and teaching contexts. My exploration of the conditions that may obstruct (constrain) or promote (enable)[5] lecturers' professional academic identity development contributes to research on AD practice and policy beyond the scope of my research site. For example, awareness of the enabling and constraining conditions for professional academic identity development ideally positions AD practitioners to support lecturers in navigating contextual constraints as they participate in their professional development and, ultimately, professional academic identity development. Such awareness is essential for strategic planning and decision-making concerning professional development initiatives within institutions. The central argument of this chapter is that agency (viz., lecturers' capacity to act autonomously and make decisions) is an integral part of the structural-cultural nexus. However, despite its significance for professional academic identity development, agency is insufficient.

Context matters, or does it?

Several empirical studies show that research-intensive universities as workplaces influence lecturers' interest in and commitment to quality teaching and professional academic development (e.g. Benvenuti et al., 2022; Jawitz & Perez, 2016; Leibowitz, Bozalek, Garraway, Herman, Jawitz, Muhuro, Ndebele, Quinn, Van Schalkwyk, Vorster & Winberg, 2017; Petersen, 2016; Leibowitz et al., 2014; Quinn, 2006). Pedagogical training to

otherwise, the quotations within the text are used verbatim.

4 These varied understandings of professional academic identity present multiple terms such as social identity, academic identity, professional identity and teacher identity to refer to the professional academic identity of lecturers.

5 In Archerian terms, these mechanisms are respectively known as constraints and enablements (Archer, 2000).

support learning and teaching through professional development is essential since many lecturers, despite being discipline experts, still need formal training as teachers when entering academia. Moreover, lecturers' teaching role often tends to be secondary to their role as researchers or discipline experts (Bitzer & de Jager, 2016; Nevgi & Löfström, 2015). Given these and other contextual realities such as the worldwide and national crisis related to student participation, throughput and success in higher education (Atherton, 2022; Baume, 2016; Kilfoil, 2021; Ramrathan, 2016; Scott et al., 2007), the distinct link between professional academic identity formation, lecturers' confidence, and motivation to contribute effectively towards learning and teaching, and their willingness to participate in professional development initiatives are central to this discussion (Bitzer & de Jager, 2016; Ödalen et al., 2018).

The nexus between professional academic identity and teaching excellence

Cognisance of the nexus between professional academic identity and teaching excellence is essential as the former may influence the quality of the content lecturers teach and how they teach (Leibowitz et al., 2017). Professional identity, therefore, plays an essential role in lecturers' capacity to help to improve the crisis in higher education mentioned earlier. My understanding of teaching excellence is in line with scholars' view of teaching performed by teachers who, as critically reflective practitioners, use scholarly, informed and contextually relevant pedagogies to create optimal conditions for meaningful learning for their students (Behari-Leak & McKenna, 2017; Lueddeke, 2003; Vorster & Quinn, 2012).

Structure, culture and agency: A brief glimpse

I used Margaret Archer's (1996) Social Realism as a theoretical lens and analytical tool to explore how Mike's professional academic identity as a teacher was shaped by the interplay between structural, cultural and agential enablements and constraints within a professional development course such as the Postgraduate Diploma in Higher Education (PGDip HE)

(hereafter, Diploma)[6], his academic department, and the broader Rhodes University and higher education context. The domains of structure, culture and agency are not separate entities and do not act independently (Archer, 2000; 2003). These concepts extend Critical Realist Roy Bhaskar's (2008) construct of the social world into the "parts" (consisting of structures and cultures) and the "people" (referring to individuals' agency). In Social Realism's stratified understanding of humans, individuals are known as actors able to occupy powerful social roles in society, and groups of individuals able to change the material structures or the ideational culture of their social contexts are known as agents (Archer, 2000; 2003).

Structures within academia are institutional policies, roles and designated positions with properties and powers such as Vice-Chancellor (VC), Deputy Vice-Chancellor (DVC), Director of Learning and Teaching, Faculty Dean or Academic Development Practitioners. Although strong social actors occupy these roles and execute powers, the roles and actors are independent of each other since each social actor may exercise their role in unique ways (Boughey & McKenna, 2021). Cultural conditions within academia include concepts, theories, beliefs, and ideas about learning and teaching and professional academic identity development expressed through dominant discourses. Agency refers to Mike's capacity to act autonomously, purposefully and make decisions concerning his teaching practice and professional development (Archer, 2000; 2003; Elder-Vass, 2010; Giddens, 1984). As demonstrated in my discussion, the influence of agency and contextual social and cultural conditions has significant implications for the formation of lecturers' professional academic identity.

Exploring hidden conditioning mechanisms

Social Realism enabled me to explore the emergence (or non-emergence) of social events and experiences, such as the formation of Mike's professional academic identity resulting from

6 The Diploma is registered as a 120-credit honours-level course on the Higher Education Qualifications Sub-Framework (HEQSF) (CHERTL, 2020).

the interplay of structural, cultural and agential mechanisms over time (Archer, 1996). As an underlabourer, Critical Realism offers a differentiated, structured and stratified view of the social world consisting of more than what we observe through our senses such as underlying, unobservable mechanisms found in three overlapping strata of reality known as the *real*, the *actual* and the *empirical* (Bhaskar, 2008). Mike's engagement in the Diploma is located at the level of the *actual*, which is a hidden dimension shaping his direct or indirect observations and experiences of the Diploma (an event), his academic department and the wider university and higher education context. A deeper potentiality with causal powers known as the *real* exists, which can be natural or physical objects (such as the environment or buildings) or social forms of organisations (such as bureaucracies) (Sayer, 2000).

Empirical manifestations such as Mike's participation in the Diploma or his professional academic identity only occur if and when the causal powers or generative mechanisms of the *real* are activated (Bhaskar, 2015). However, since these empirical manifestations may not always be visible in the *empirical* and the *actual* sphere (Elder-Vass, 2010), I used abduction and retroduction to explore the causal powers at the level of the *real* which may have given rise to them (Danermark et al., 2002). Abduction involves using theory to understand empirical data, and retroduction involves moving from empirical data, such as Mike's reflective accounts about his experiences in his academic department, to infer the conditions that may have led to the emergence of these experiences and his professional academic identity as a teacher in higher education. Retroductive reasoning also involves finding out what should exist in the different social structures (Boughey & McKenna, 2021; Danermark et al., 2002) to influence the formation of Mike's professional academic identity. In addition, judgemental rationality allows researchers to evaluate and compare the explanatory power of the theoretical concepts that they work with. Researchers can thus select the concepts which most accurately help them to explain the effect of causal mechanisms at the level of the *real* (Hu, 2018). In other words, judgemental rationality allowed me to theorise about what the world must be like at a research-intensive university to enable

the formation of lecturers' professional academic identities as teachers.

Analytical dualism and the morphogenetic cycle: intransitive conditioning mechanisms and judgemental rationality

I used Archer's (1995) methodological framework, the morphogenetic/morphostatic cycle, to determine whether I could attribute the shifts in Mike's professional academic identity development as a teacher to structure, culture, or agency. Emergence and analytical dualism are essential concepts in the morphogenetic/morphostatic cycle (Archer, 1995). The stratified depth ontology of analytical dualism allowed me to analyse structure, culture and agency separately before examining their interplay. Analytical dualism thus enabled me to explore how, over time, the interplay between the intertwined, intransitive, unobservable and relatively enduring properties of mechanisms conditioned the emergence of experiences and social phenomena (Archer, 1995, 2000). Here, I refer to the conditioning influence of the structural emergent properties (SEPs), cultural emergent properties (CEPs) and Mike's personal emergent properties (PEPs), viz, his agency on his participation in professional development initiatives and his professional academic identity development.

Thus, history and context are essential in Archer's (1995) morphogenetic cycles, which consist of three chronological or temporal phases: the first phase is known as T1, where T denotes time; the interaction phase is known as T2-T3; and the elaboration phase known as T4 (Archer, 1995; Behari-Leak, 2015). T1 constitutes the period before 2005 before Mike enrolled in the Diploma. In this conditioning phase, existing SEPS and CEPS in the institutional and higher education contexts have already shaped the historical context that he entered into. Interrogating the sociocultural (S-C) interaction during T2-T3 (2005-2006, the period of social interaction in the Diploma) enabled me to explore whether and how Mike, through mediation, exercised his agency to respond to conditions within the cultural system presenting enablements or constraints to his vested interests or personal

project (Archer, 1995; 2007; Luckett, 2012). Mike's personal project was the course of action that he intentionally engaged in in his social role as a teacher. This project stemmed from his ultimate concerns, viz. those "internal goods" that he cared about and mattered most to him as a teacher (Archer, 2007:7; Boughey & McKenna, 2021). Mike's ultimate concerns related to the practical order since his participation in the Diploma indicated his interest in and commitment to becoming and being a particular kind of teacher in his discipline.

In the final temporal stage, known as T4 (the period after Mike participated in the Diploma), the outcomes of Mike's sociocultural interaction culminated in either morphogenesis (transformation) or morphostasis (reproduction) of structure, culture or agency (Behari-Leak 2015:74-75; Danermark et al., 2002) and Mike's professional academic identity. As an explanatory methodology, analytical dualism guided me in avoiding upward conflation, where I accorded more importance to Mike's agency in bringing about structural and cultural conditions within his academic context, or downward conflation, where structure and culture within these contexts deterministically defined his agency (Archer, 2000; Boughey & Mckenna, 2021; Danermark et al., 2002; Sayer, 2000).

Deepening my analysis with situational logics

Situational logics are the unique positioning of SEPs and CEPs that set up prior differential power relations within Mike's social contexts. These situational logics shaped the practical situations, daily experiences and events within the Diploma, Mike's academic department, the broader university and higher education context that he encountered and, despite having a free will, predisposed him to act in certain ways (Archer, 2007). In Table 3.1, I use a simplified version of Archer's (1995) situational logics adopted from Luckett (2012:341) to present the potential situational logics in the four configurations of structures and cultures. Situational logics describe the types of pressures or opportunities that people face depending on the kind of existing relationships and structures already in place in society.

Although these types of pressures or opportunities conditioned the social context for Mike, he could draw on his reflexivity to respond to or mediate the structural and cultural mechanisms and the situational logics. Reflexivity refers to his internal conversation with himself in which he continuously and critically reflected upon his circumstances and made decisions based on what mattered most to him (Archer, 1995; 2000; 2003; 2007) as a teacher in higher education.

Table 3.1: Situational logics in the domain of culture or structure (Luckett, 2012:341)

	Contradictions		**Complementarities**	
	Necessary	Contingent	Necessary	Contingent
Situational logic	correction	elimination	protection	opportunism

In the structural domain, potential situational logics result from the type of relations between different parts of the structural system. In the domain of culture, potential situational logics result from the relations between ideas (Archer, 1995; 1996). When the SEPs and CEPs are mostly aligned and compatible, they are complementary and mutually reinforce each other. In other words, in necessary complementary relations, different parts of society, viz., the SEPs and CEPs, depend on each other and work best when they cooperate to mutually reinforce vested (material) interests (Archer, 1995; Case, 2013). As shown in my study, the relations between the Diploma and lecturers who participated in this professional development initiative were necessary and complementary because these initiatives were only meaningful because of their uptake by lecturers (Adams, 2024). Similarly, when the SEPs and CEPs do not need each other to exist but can benefit from working together, people are encouraged to form alliances or partnerships. The synergy between the material resources and positions (SEPs) and agents' ideas and beliefs (CEPs) results in compatible, complementary situational logics, which create the potential for social reproduction (morphostasis) (Archer, 1995).

In contrast, when the SEPs and CEPs are not aligned but are mostly incompatible and contradictory, the structures and culture create tension because they conflict. Likewise, contradictory ideas (configurations of cultural interests) may lead to constraining necessary contradictions between mechanisms (Archer, 1996). For example, because of their engagements in the Diploma, lecturers' initial resistance and ideas about the importance of teaching and learning and professional development most likely had to change to address contradictions. As can be deduced from the information shown in Table 3.1, a correction of ideas is the most likely outcome. On the other hand, incompatible, contingent contradictions between mechanisms (configurations of structural interests) will require that something be removed (Archer, 1995; Case, 2013; Muthama, 2018). For example, if the institutional context threatened or undermined the traditional standards of the Diploma, the likely outcome would be elimination. In other words, this elimination could lead to the proponents of teaching and learning and professional development and those who oppose or do not prioritise teaching and learning and professional development experiencing "a situational logic of polarisation" (Luckett, 2012:344). Thus, competitive (contingent) contradictions (configurations of cultural interests) in which the situational logic of elimination of one set of ideas is created, result in morphogenesis (Archer, 1995; Luckett, 2012) of the status quo. Notwithstanding, as I will show in my discussion, holistic institutional approaches and practices indicate that there is much in the cultural context at Rhodes University that values teaching.

Identifying whether the cultural and structural conditioning mechanisms were complementary or contradictory, was a helpful first step in analysing the cultural and structural conditioning that influenced Mike's decisions about whether and how he should respond to prevalent enablements or constraints. It is large interest groups instead of individual agents who engage in the potential four types of strategic action (correction, elimination, protection and opportunism) shown in Table 3.1 (Archer, 1995; Behari-Leak, 2015:70; Kotta et al., 2014: 516). Situational logics were thus helpful in analysing how Rhodes University as a research-intensive institution and the broader higher education context conditioned Mike's socio-cultural interaction

in general (Archer, 1995; Behari-Leak, 2015; Kotta et al., 2014; Vorster, 2010). Methodologically, the situational conditioning of complementarities and contradictions enabled me to analyse how the cultural and structural context shaped Mike's professional academic identity formation.

Our understanding of reality may not be absolute, given that agents and their choices are fallible, and the interplay between structure or culture is more complex than simply being either contradictory or complementary (Archer, 1995). Therefore, in this vignette, I applied the situational logics to the data in a light manner to explain rather than give direct conclusions about the influence of the various situational logics on the formation of Mike's professional academic identity (Cruickshank, 2003; Moyo, 2018).

Research design tools in crafting a vignette

This vignette consisting of verbatim input includes data sources generated between 2019 and 2021, such as the extant literature, institutional documents related to learning and teaching, a survey questionnaire, a semi-structured and focus group interview and Mike's teaching portfolio submitted for summative assessment in the Diploma. A qualitative research design involving case study research allowed me to search for generative mechanisms to provide causal explanations related to explanatory questions of *how* and *why* when I engaged with the ideas, perceptions, experiences, and social practices of my research participants (Alvesson, 2003; Yin, 2003).

Rhodes University: its significance as a research site

I purposefully chose Rhodes University as my site of inquiry to understand whether and how its differentiation as a research-intensive institution conditioned the interplay between structure, culture and agency and, in doing so, enabled or constrained the professional academic identity formation of lecturers at this institution. Characteristic of a research-led institution research is core to the academic project at the University (Muthama, 2018). Thus, unsurprisingly, Rhodes has consistently been amongst the top universities in the country for highest research output per

capita[7] (Rhodes University, 2019b). Being a research-intensive institution had significant implications for learning and teaching and lecturers' participation in the Diploma, mainly because national structures (e.g., policy directives stipulating funding formulas for research), institutional structures (e.g., university policies on personal promotion), and culture (e.g., dominant discourses) prioritised research over teaching. Perceptions that there are more rewards for research than teaching may influence lecturers' commitment to teaching or the extent to which they seek opportunities to develop their teaching (Jawitz & Perez, 2016; Muthama, 2018; Petersen, 2016). However, as shown by Mike's remark below, despite being a research-intensive institution, there is a strong, competing culture of valuing teaching at Rhodes University:

> Well, I think there are kind of two discourses. I mean, there's the official discourse, let's call it the CHERTL[8] discourse that teaching is valued and that your promotion documents and other things like that are valuable, but if you just catch dissatisfied academics over a beer, then they will always emphasise how much their research should be, some of them can be actively dismissive of their teaching, but they will always say, "You need research to be promoted." I don't think it is actually so true in the way they want to put it.

Conceptual framework: Agency, reflexivity and professional academic identity formation

Reflexivity,[9] viz., Mike's internal conversation and deliberation with himself, was essential to exercising his agency and

7 The Department of Higher Education and Training (DHET) calculates accredited research output per capita as the annual research output of higher education institutions in relation to their University Councils' costs per academic staff member (Rhodes University, 2019b).

8 Mike refers to the Centre for Higher Education Research, Teaching and Learning (CHERTL) at Rhodes University.

9 These modes are communicative, autonomous, meta-reflexives and fractured. Each of them results in different outcomes because research participants verbalise their internal thoughts in a different

shaping his professional academic identity (Archer, 2003; 2007; Giddens, 1984). As reflexivity is fluid and not fixed, Mike may have used different modes of reflexivity in different situations (Archer, 2003; 2007). However, throughout the data generation process, his most dominant mode of reflexivity demonstrated a sophisticated level of self-discipline, independence, and self-reliance on his abilities to identify the best course of action to establish satisfying, sustainable practices to bring his personal project to fruition (Archer, 2007).

As shown in the vignette below, Mike expressed his agency by adopting a personal project, which was borne out of his interest in learning (more) about a particular aspect related to his teaching and becoming a particular kind of teacher in his discipline. However, through teaching and his interactions within the Diploma and his academic department to bring his intended project to fruition, the structural and cultural mechanisms were activated. Depending on whether and how he exercised his agency, these structural and cultural mechanisms thus either constrained or enabled the formation of his professional academic identity as a teacher. His commitment to his project and his professional standing as a discipline expert accorded him certain powers that enabled him to reflexively mediate constraining conditions to establish satisfying, sustainable practices to make his project a reality (Archer, 2007; Boughey & McKenna, 2021). Therefore, it is through prioritising his concerns that his professional academic identity as a teacher was shaped.

Personal and professional academic identity formation

Archer's (2000) analytical dualism helped to distinguish between four strata of identity development: the self, the person, the social agent and the social actor. This distinction implies that people have different layers of agency, with personal abilities and characteristics, such as confidence, commitment, self-understanding and decision-making ability (PEPs), that develop through experiences at different levels of society (e.g. family

manner and respond differently to prevalent structural and cultural constraints and enablements (Archer, 2003).

life, school, spirituality and the workplace) (Archer, 2000). Our sense of self is the foundation for our personal and social identity as agents and actors. Our sense of self and social identity, also called professional academic identity, are intertwined and emerge simultaneously (Archer, 2000; Behari-Leak, 2015). Thus, our professional academic identity develops in relation to our personal identity and depends on whether we have already developed a continuous sense of self (Archer, 2000; McAlpine et al., 2014). This continuous sense of self refers to our understanding of who we are as individuals and who we are in relation to other people. In Mike's case, his social self emerged as he involuntarily engaged in a society with unequal material resources. He reflected on his experiences and deliberately made choices about his future and role in society and about whether to accept or reject society's roles and expectations. For example, despite his initial resistance demonstrated in the quote below, and the influence of structural (SEPs) and cultural (CEPs) powers, Mike's PEPs enabled him to become an academic and higher-education teacher:

> It's my personal character that I love teaching and that's something that I've come to understand over time, more and more in my 30's. Because I think my mom had said, when I was a kid, 'Oh, you'll be a great teacher one day.' And I always swore I will never become a teacher, because both my parents are teachers. I remember telling my mom, I said, 'I will never be, I would rather die and starve, than become a teacher. And, yet, here I am'.

The emergence of professional academic identity is relational (Archer, 2000) and, as in Mike's case, his choices and how he navigated social systems and cultural expectations within his personal, social and work contexts shaped his personal and professional academic identity. The aforementioned implies that an indicator of professional academic identity was when Mike had adopted his role as a teacher (through teaching) and invested himself in personifying what it meant to be a teacher in a particular context as he engaged in learning and teaching-related activities to support his students' learning. This indicator of Mike's professional academic identity links well with an interactionist

understanding of identity, suggesting that lecturers' teacherly identities emerge from their professional status and interactions with their colleagues and role players in academia. In addition, lecturers' teacherly identities emerge through how they interpret these experiences (Gee, 2000; Kaasila et al., 2021) and, I would add, internalise and embody such experiences.

Feeling like a fish out of water: Analysis of the Narrative of Mediation at T4 of the morphogenetic cycle

When enrolling in the Diploma, Mike was in his late twenties. At that time, he had already developed a mature and strong sense of self (personal identity), which is unique and personal (Archer, 2000). Structurally, Mike's sense of self was shaped by the social context that he was born into and his racial demarcation as a white[10], middle-class intellectual. Imbued with certain powers resulting from this involuntary placement in society (Archer, 1995), Mike's towering physique and outspoken assertiveness commanded attention (Archer, 2000) amongst his colleagues and students.

During T1, Mike involuntarily entered a social context where attendance and participation in the Diploma yielded anticipated results such as knowledge and practice-based competence about being a teacher in a research-intensive context such as Rhodes University. Unbeknown to Mike, during his engagement in the Diploma (T2-T3), and to achieve his personal project, he would have to mediate undercurrents underneath the seemingly calm and uneventful surface in the form of existing structural and cultural emergent properties within the Diploma, his academic department, Rhodes University, and the broader higher education context. These SEPs and CEPs, which uniquely shaped these contexts, materialised in the form of institutional policies and processes prioritising research on the one hand and supporting learning and teaching on the other hand. SEPs and CEPs in the form of heavy workloads, and resistance from colleagues also

10 Until the inception of a democratic government in 1994, South Africa was a racially segregated country with an inequitable distribution of resources for different racial groups.

shaped teaching and learning at the University. In contrast, as structural and cultural enablements, CHERTL (Centre for Higher Education Research, Teaching and Learning) and the Diploma influenced the learning and teaching context at the institution.

In some instances, he traversed the tranquil ebb and flow of waves when confronting enabling structural enablements such as CHERTL, who enacted its teaching support mandate for lecturers through offering various workshops, seminars, the scholarship of teaching and learning (SoTL)-based[11] writing retreats and other awareness and capacity-building initiatives such as curriculum development:

> Learning and teaching is supported by CHERTL, which is very visible in the faculties and the committees. So, you can't forget that CHERTL exists or at least, you know. And that really again kind of pushes the learning and teaching agenda.

In other instances, CEPs in the form of ambivalent interpretations of national and institutional policy directives felt like hitting a sandbank or rocky bottom. These ambivalent interpretations influencing the social context included established discourses about the benefits of focusing on research, as evidenced by most of the professors who accrued substantial social capital attributable to their research output. These discourses influenced lecturers' participation in professional development initiatives by lamenting learning and teaching as invisible, often unrewarded labour and additional work on top of an already over-burdened work schedule. Mike highlighted these anomalies when he reflected on whether the Diploma has influenced his career:

> It encouraged me to take my teaching seriously and gave me the tools that help me enjoy and find validation in my own teaching. This intersects with the Rhodes promotions

11 The term SoTL is accredited to Ernest L. Boyer who attempted to redefine the nature of academic practice or scholarly work in 1990. This redefinition of academic work involves transcending the divide between research and teaching and recognising that scholarly work is equivalent to the "traditional view of scholarship as disciplinary research" (Brew, 2006; Simmons & Poole, 2016:13).

> policies that explicitly reward teaching (much more than at other universities). I also published a paper on SoTL and will write more in the future which I have found incredibly rewarding, but at the expense of developing my research in my own discipline to some extent. So, while I have no regrets whatsoever about it, it probably has not made me more marketable elsewhere.

Mike's comment refers to the competing discourses about whether the personal promotion criteria at Rhodes University validated research or learning and teaching. These competing discourses resulted in a situational logic of constraining necessary contradictions. However, during his engagement in the Diploma, the socio-cultural interaction between Mike, his peers, the facilitators, and his colleagues influenced how he responded to the cultural system. Through collective action involving participating in institutional learning and teaching events, showcasing innovations in their teaching and through SoTL, viz., disseminating their research on their teaching in their disciplines, Mike and these role players endeavoured to change or correct these ideas by strategically doing what was within their sphere of influence despite the contradictory discourses.

Mike confidently expressed a strong sense of self when reflecting upon his appointment as a lecturer shortly after completing his Master's degree. He had already acquired substantial cultural and social capital on a personal and professional level, which included "material and non-material resources" such as ingrained habits, values, and skills in the form of a PhD in a highly specialised field (obtained in 2005) and dispositions and growing status as a researcher and discipline expert, which he acquired because of his involuntary placement within a particular social class within society (Bourdieu, 2000; Kloot, 2011:30; Norodien-Fataar, 2016:87). At that time, Mike had already demonstrated acumen as a scholar and leader in his field through his extensive research output and as the co-editor of four academic volumes in his discipline. Mike's cultural capital contributed to his positive self-esteem and afforded him high recognition within his disciplinary field and academia. These are

all indicators that Mike had already developed his sea legs as a discipline expert in academia.

Mike attached a high value to and prided himself on his performative competence in a highly specialised disciplinary field. When joining Rhodes University, he felt that his expertise was valued because, at that time, he was one of only two disciplinary experts in the country who knew how to conduct a "very technical", "precise", and "abstract" kind of analysis in his disciplinary sub-field. In the same way that Mike's internal acknowledgement and validation of his sense of self carried weight concerning his insights about his personal identity and accomplishments as a discipline expert, receiving external acknowledgement was essential. Such acknowledgement is a necessary "prerequisite" for lecturers' professional academic identity formation (Archer, 2000; Behari-Leak, 2015:377). This vignette provides support for research in which scholars identified a sense of appreciation, connectedness competence, commitment and the opportunity to advance in their careers as essential psychological processes in shaping lecturers' identities as teachers (Van Lankveld et al., 2017).

Mike's sense of self was thus validated and affirmed in the unique collegial context at Rhodes University. With fewer staff members than at bigger institutions, new academics like himself who could fulfil multiple roles in addition to their teaching duties, such as serving on senate committees and being members of task teams and working groups, were welcomed at the institution. For Mike, this recognition entailed being accepted into a collegial, intellectual community of practice whose scholarly footprint extended beyond the borders of the University.

Contrary to these positive experiences as a new academic, Mike had to mediate tension in the form of "dissonance" between his strong disciplinary identity and his identity formation as a teacher. This "dissonance" existed because "everything was completely different" from what he was used to as a student. These differences included disappointing learning experiences involving persons he regarded as role models:

> I was trained at universities where it was the big researcher that does everything. I've found some professors were much worse than other professors, just because they just didn't care. They would stand in the class and mutter to themselves. I mean it was absolutely shocking. So, I'd experienced that negative part of it and I always thought I don't want to be like that.

Mike's experiences also included differences in terms of his own experiences as a student, the increased student diversity and class sizes, and his own "assumptions about knowledge and learning":

> I never had any teaching background at all. I did not know what a learning outcome was, I did not know what a criterion was. I had no idea about assessment, other than, like, an intuitive idea of validity and reliability. I did not know what the CHE[12] was, or SAQA[13] or the NQF,[14] nothing - I knew none of that stuff. But, basically, my entire teaching was framed by what had happened to me when I had been a student. I thought that whatever my experiences are, they're just not applicable now.

As a distinguished achiever, Mike continuously strove to be good at what he does, and he thus drew on these insights to align his drive to succeed with intrinsic satisfaction derived from his teaching. As a result, frustrations associated with feeling inadequate were unfamiliar to him. Through reflexive deliberation, Mike strategically weighed his options about the best course of action to benefit his teaching. In a task-oriented manner, he exercised his PEPs by capitalising on the probationary requirement for new lecturers[15] and completing the full qualification (the Diploma) instead of only the Assessment course:

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12 Council on Higher Education (CHE)
13 South African Qualifications Authority (SAQA)
14 National Qualifications Framework (NQF)
15 New lecturers at Rhodes are encouraged to enrol for the Assessment course (now known as the Conversations about Teaching, Assessment and Learning, CATALyst course), which provides lecturers with a space to critically reflect on and enhance their curriculum, teaching, and assessment practices to meet the learning

> Oh, and plus all the institutions had kind of, like, merged and been reformulated, so I was like a fish out of water. And I thought, no, I want to know more about this environment and how I can teach in it. That's why I decided to do the whole [Diploma].

In this case, the compatible and complementary relationships between SEPs and CEPs resulted in a situational logic of protection. The internal relations between the systemic structures at Rhodes University, viz., institutional directives for new lecturers and the Diploma as a structural enablement influencing the learning and teaching context, were congruent and thus mutually reinforced each other. Likewise, in the domain of culture, a situational logic of necessary complementarities existed between the ideas promoted in institutional directives about teaching being taken seriously by the University and Mike's beliefs about the value of engagement in a professional development course. Supported by interest groups such as CHERTL colleagues and other strong social actors at the University such as the VC and DVC: Academic and Student Affairs who worked to protect these interests, these necessary complementarities thus resulted in a situational logic of opportunism as they predisposed Mike to attain his personal project through engaging in the Diploma:

> The Rhodes University promotion policy explicitly puts a big value on learning and teaching, and I support that move entirely. So, if you're going to work at this university and you don't value teaching, you're not going to get promoted. And so that meant that I was forced to take teaching and learning, seriously.

As demonstrated above, Mike purposefully enacted his private deliberations by recognising an opportunity to prioritise his concerns about his performative competence as a teacher. Bolstered by the institutional support for learning and teaching as reflected by cultural and structural conditioning mechanisms, Mike thus fine-tuned his personal project, demonstrating his

needs of their students. The Assessment course is equivalent to the Assessment of, for (and as) learning module in the Diploma.

commitment "to find out more about how higher education works and how it works in South Africa". These cultural and structural conditioning mechanisms were in the form of affirmative discourses conveyed through the guiding principles in the institution's mission statement and a suite of institutional policies related to learning and teaching. These affirmative discourses demonstrated the institution's commitment to creating a learning and teaching environment supported by scholarship and promoting excellence and innovation in learning and teaching.

However, Mike found himself swimming against the tide when his strong sense of self and his experiences within the Diploma sharpened his critical gaze about the misalignment between his personal project and the seemingly taken-for-granted practices in his department:

> I was new and hot and, you know, ready to go and I came from this intense disciplinary training and I just kind of [realised that] the department just accumulated a bunch of courses that were really not relevant. So, I kind of went in all hot-headed.

In his self-disciplined, self-motivated, and self-reliant, albeit "hot-headed" manner, Mike agentially responded to the situational logic of constraining contradictions existing because of incompatibilities between ideas and discourses reflected in institutional policies related to learning and teaching about scholarly informed pedagogical practices (Rhodes University 2019a) and the common-sense pedagogical practices within his academic department. Moreover, the disjuncture between his understanding of disciplinary knowledge and that of his academic department solidified his undertaking to pursue his project regardless of the potential ramifications to his career:

> Now you see where I'd been and where I'd been taught [his studies overseas] [my work] is a very narrow, formal, mathematical kind of [field], in fact it's insanely abstract … that's what I thought I was going to teach. And then they gave me a course on [something else] … And I turned

> around and said, 'I'm sorry, this is not [what I'm supposed to teach]'.

Through reflexive deliberations, which solidified his commitment to his personal project, he actively drew on the structural and cultural enablements within and associated with the Diploma to mediate the structural and cultural conditions within his academic department. These enablements came about because the Diploma represented a community of practice (CoP) (Wenger, 1998). Mike's participation in the CoP also shaped and validated his beliefs about his role in contributing to the purposes of higher education. His contribution to the CoP involved meaningful and mutual engagements and interaction with his peers and the facilitators through which they negotiated shared understandings about the synergy between their teaching philosophy (e.g., their beliefs, values, attitudes, and their roles as teachers in academia). Through participation, they built reciprocal relationships in which sharing information and generating and validating knowledge, insight and shared discourses about learning and teaching enabled members of the CoP to support and learn from each other (Roberts, 2007; Smith et al., 2017; Wenger, 1998).

Enablements deriving from Mike's participation in the Diploma also came about because of the facilitators who, through their scholarly work and contributions within the higher education professional community, were significant social actors who contributed to the cultural conditioning on learning and teaching and professional development at the international, national and institutional levels[16]. They were thus ideally placed to draw on the established and emerging discourses about learning and teaching and professional identity development to shape the ideational context within the Diploma. Through engagements and practices that emerged from the pedagogic discourse in the Diploma, the facilitators enculturated Mike and his peers into a community of teachers who demonstrated their concern for

16 The facilitators' life-long contribution to building the disciplinary field in higher education learning and teaching resulted in them receiving the 2018 CHE-HELTASA National Excellence in Teaching and Learning Award (HELTASA, 2018) (Higher Education Learning and Teaching Association of Southern Africa [HELTASA] 2018).

learning and teaching. These practices involved the facilitators emulating, promoting and regulating what taking up and enacting "discipline-specific pedagogic identities" as teachers entailed (Singh, 2002:577). Consisting of the "regulative discourse (RD)" and "the instructional discourse (lD)" (Bernstein, 2003; Singh, 2002:576), the pedagogic discourse describes the guidelines, procedures and principles which the facilitators used to convert "domain-specific, expert knowledge" (Singh, 2002:577) into a practice-based course such as the Diploma.

Within the Diploma, the instructional discourse refers to the facilitators' selection, sequencing, pacing and evaluation of content or knowledge to be included in the curriculum (Vorster & Quinn, 2012). The content of the Diploma was thus carefully selected to support lecturers in building a strong knowledge base of the field of learning and teaching in higher education so that they were able to design their course curricula and teach in ways that enabled students' access to their disciplinary discourses and associated practices (Vorster & Quinn, 2012; 2015). These practices involved supporting Mike and his peers to meet the outcomes of five modules: learning and teaching in higher education, curriculum development, assessment of, for (and as) learning, evaluation of teaching and courses and one elective module[17]:

Like most lecturers, Mike capitalised on these and other enabling mechanisms in the form of practical tools such as learning theories and constructive alignment to understand his practice and student learning and to bring about and advocate for much-needed shifts in his departmental curricula:

> We [his academic department] accumulated a bunch of courses that were really not relevant. You know, so there

17 The elective module, which is completed mainly through self-study, focuses on research in higher education on any area of their practice that lecturers would like to investigate. During the period under investigation, viz., between 2005 and 2017, examples of electives were: Design and implement eLearning, Design and implement experiential learning, Research Supervision in Higher Education, Leadership in Higher Education, Design and implement Service-Learning, Social inclusion in Higher Education (e.g., integrating HIV-AIDS, race and gender issues into the curriculum) and Decolonisation or Africanisation of Higher Education (CHERTL, n.d.).

> was just a bit of mish mash rather than "Let's develop the students' analytical ability in this area from first to third year." That was my feeling and so, because I didn't know better, because I was, like, way more confident than I had any right to be and I was, like, you know, raring to go, I *spat Bosberaad*, [18] I basically did a very stupid thing - I said, we must change all our courses like this. There's no continuity, there's no coherence.

As an enablement, the regulative discourse (RD) instilled the values that inform the curriculum that Mike as a teacher, was encouraged to personify in learning and teaching contexts. Apart from observing how the facilitators embodied these values, Mike also had opportunities to internalise how to adhere to the expectations and guidelines of the teaching profession and how to enact its appropriate disposition, conduct, character and manner (Singh, 2002; Vorster & Quinn, 2012; 2015). In addition, Mike's receptiveness to learning about how to support his students in gaining access to disciplinary knowledge and discourses was contingent on his ability to demonstrate affinity with the transformation-oriented perceptions of his role as a teacher and the role and purpose of higher education, viz., its benefits for students and society (Vorster, 2010; Singh, 2002). In higher education institutions worldwide, the increasing massification and resultant change in student demographics necessitated capacity-building of lecturers like Mike, who was able and eager to engage in "curriculum and pedagogic reforms" to contribute to all students' academic success (Boughey & McKenna, 2021; Vorster & Quinn, 2012:55):

> I'm very critical of Criterion Reference Assessment, because I think 99% of the time, I think it's done in a way that is actually not criterion referenced, but, you know, very norm referenced. So, I developed a rubric - which I still use for everything from second year right up to post-grad work.

18 These two words are unique to South Africa. The word *spat* is an Afrikaans colloquialism used for "said" or "shouted", and a *Bosberaad* is a term for a strategic meeting held away from the usual work context, such as at a game reserve.

> And that is something I gave to my department who uses that in various ways.

In addition, Mike engaged in various other curriculum development initiatives, which demonstrated his commitment to pursue his personal project in knowing more about teaching in his discipline and influencing pedagogic practices in his department in a scholarly manner:

> I tried changing the modality of what we did, so I created an online glossary. I've integrated research into the classroom, where part of the assignment is, they must go out and interview people with a questionnaire, and so then you actually create research - real research in the classroom, not as in create some toy project that I've invented for the sake of the learning experience but doing real stuff.

Through these initiatives, Mike articulated how he ascribed to and enacted his beliefs in the holistic purpose of education, which is not only to shape students' intellectual development but also to shape their personal, social, and moral development and, in doing so, prepare them to make a meaningful contribution to society as responsible and productive citizens (Vorster & Quinn, 2012). This orientation aligns with the main principle supporting the regulative discourse of the curriculum (Vorster, 2010) within the Diploma, which centres on what Biesta terms "the axiology of education" (Biesta, 2015:18; Vorster & Quinn, 2012). Mike's willingness and enthusiasm to innovate his practices provide support for research by Leibowitz et al. (2017), who found that some lecturers who engaged in professional development initiatives do not see teaching as a standalone activity but instead regard it as a core aspect of their various roles as researchers, academic administrators, managers, and participants in community engagement initiatives in academia.

Given its practice-based nature, the Diploma focused on supporting and developing lecturers' practices. Mike and his peers were thus encouraged to experiment in their teaching with the learning and teaching strategies introduced in the Diploma.

However, a lack of support in his academic department often curtailed Mike's excitement and commitment to adapting and applying these strategies. For instance, Mike had to strategically circumvent contextual constraints such as a heavy teaching load in pursuit of his personal project:

> I did not get a light teaching load; I had a full teaching load, a full supervision load, I was coordinator of the third years at that time. I pulled my weight just like anybody else. So, there were no allowances made, but, yeah, I attended in the time that was available and I published during that time, I wasn't a slacker.

Several studies have reported the realities of academic workloads as a constraint for lecturers' meaningful participation in professional development initiatives, and ultimately, their professional academic identity formation (Behari-Leak & Le Roux, 2018; Hassan, 2013; Leibowitz, 2016; Council on Higher Education [CHE], 2016). Although not explicitly mentioned by Mike, a heavy teaching load and large classes can be associated with increased administrative tasks. As identified in other studies and articulated by Mike, a heavy workload contributes to lecturers' inability to transfer, implement, or experiment with the practices introduced in professional programmes to their departmental contexts (Behari-Leak, 2015; Fanghanel, 2007). In contemporary higher education, there are constraints such as increasing demands on lecturers' time to conduct research, be involved in community engagement, and contribute to knowledge-building in their professional fields. These constraints may intensify the tension between conducting SoTL research as opposed to mainly disciplinary research.

Mike's engagement in his academic department personified an ongoing battle against multiple waves of resistance, wanting to crush his dreams and commitment to bring about changes in his teaching practices. Confident about his judgement and authority on this subject, he went about his work in a focused and disciplined manner to relentlessly mediate cultural constraints in the form of resistance from some of his colleagues. He thus

actively drew on his personal powers and properties in forging ahead to propose carefully thought-out plans:

> I am quite a stubborn guy; I can be quite forceful. So, I decided I was going to let my first years collect data so they can be inducted into the research creation process. We're going to use that data that they collect to write their essay topic. And, you know, some staff came to me and said, 'Oh, yeah, that's really very difficult, you know. Yeah, I don't think it's really very viable, you know'. And so, they expressed their doubts and I'm, like, 'Fine, I'm going to do it anyway'.

It seems that Mike's department valued his input in teaching matters, albeit "grudgingly" and in a conditional manner. This half-hearted approach to his proposed innovative practices could indicate that if new lecturers were not as assertive, outspoken, and steadfast in refusing the monotony of circling in a fishbowl of complacency, they might not be able to bring about changes in their curricula, let alone influence their colleagues' archaic beliefs and attitudes:

> There is a qualitative difference between staff who have done the Diploma and those (generally older now) who have not. When I arrived in my department, I was the ONLY one who had done it. I found that it gave me some theory and some metalanguage to talk with authority about my courses and also made me more open to innovation - I found colleagues who had not done the course were more "flying by the seat of their pants".

As shown in the literature, academic departments that explicitly value teaching positively shape lecturers' professional academic identity (Van Lankveld et al., 2017). Other cultural constraints such as territorial dispositions, fears of being undermined and beliefs, ideas and values about power and hierarchy usually held by older, more experienced lecturers may influence the extent to which lecturers like Mike may innovate in their practices and influence departmental practices that would translate into student success.

This resistance to changes in learning and teaching is similar to those found in studies involving the professional learning of experienced and new academics (Behari-Leak, 2015; McKenna & Boughey, 2014; Quinn, 2012; Vorster, 2010).

Mike's narrative about the qualitative difference between colleagues who have undertaken the Diploma and those who did not demonstrate his willingness to positively contribute to assuming responsibility, autonomy and control over the trajectory of learning and teaching within his department. The value that he ascribed to his performative competence as a teacher was evident in his description of himself as someone who does "not like to fail", "admit defeat," or be "the worst lecturer in the department". Furthermore, for Mike, being a discipline expert who "loves teaching" and being a "completely committed", albeit new teacher, and being "well-versed" in his disciplinary norms and values and accepted social practices were two sides of the same coin. He thus made purposeful, deliberate decisions about the best ways of inducting his students into the disciplinary identity of his subject.

Since the issue of transformed learning and teaching concerning departmental practices mapped directly onto Mike's ultimate concerns, he strategically aligned himself with like-minded colleagues who have also undertaken the Diploma. Confident about having reviewed feasible options available to him in achieving his ultimate concerns (Archer, 2013), and their likely outcomes, he garnered their support for the learning and teaching practices that he had in mind:

> I get an idea, I push with it. I try and get people on board. I identify my allies; I say, 'Oh, yeah,' you know, 'I can see this person, you know, has got the same idea.' I talk to them; we build a rapport. I talk to someone else and then they say, 'Well, I'm kind of okay with it but I've got these problems,' and I'd go, 'You know, you're right, maybe if we shift it around a bit like this that'll make a bit more sense.' And that's really important.

Although these corporate agents did not need each other to exist, viz. perform their duties as teachers, they benefited from working together to achieve a collective goal. Having engaged in professional development initiatives offered by CHERTL, they were able to capitalise on enabling mechanisms to transform from primary agents into Corporate Agents who articulated their needs and strategised accordingly (Archer, 1995; 2007). These enabling mechanisms were their combined resources in the form of educational discourses about learning and teaching and their network of peers. In Archerian terms, these corporate agents agentially responded to the contingent complementarities, which presented a situational logic of opportunism by extracting gains from institutional resources made available through CHERTL to enhance learning and teaching. Collectively, as corporate agents, they could endorse Mike's contributions and have informed discussions about teaching-related matters in their department. They could thus capitalise on their vested interests in influencing departmental learning and teaching matters.

The elaboration of Mike's agency and professional identity as a teacher can also be observed in how his continued enactment of the professional role as an academic (Billot, 2010) was visible within but also transcended his institutional context. His initial perception of feeling like "a fish out of water", which evolved into lasting footprints in the sand, viz., his ongoing contribution to the discourse and practices around teaching and learning within his department and at Rhodes University, demonstrate the formation of his professional academic identity as a teacher. Since he participated in the Diploma, he has become a strong social actor who strategically shaped the teaching and learning discourses and practices of his discipline and the University and his active participation and leadership roles in numerous CHERTL initiatives such as authoring a case study about using the institutional learning management system (LMS) to generate student feedback for course coordination. In addition, he actively and strategically shaped teaching and learning through his participation in the institutional language committee and other senior-level committees, such as the HoD forum and as an editorial team member of various academic journals.

Coming full circle

In this vignette, I explored one lecturer's mediation of the structural and cultural mechanisms constraining and enabling his personal project and, ultimately, shaping the formation of his professional academic identity as a teacher. Through reflexivity, Mike exercised his agency to act back on these conditioning mechanisms to realise his ultimate concern in becoming and being a particular kind of teacher at a research-intensive university. The implications of this vignette are profound for AD practices and academic leadership. They highlight the importance of knowledgeable and skilled academic developers who have the capacity and are committed to modelling good practice. The vignette also highlight the essential role of communities of practice emerging from professional development structures. In addition, the vignette signals the possibilities of academics' agential journey in becoming the kind of teacher that they envisaged and the significance of agency in shaping professional academic identity. Moreover, this study contributes to existing literature by identifying agency as an integral part of the structural-cultural nexus. Mike's response to the situational logics brought about by the interplay of enabling structural and cultural conditions within the Diploma and the University and constraining structural and cultural conditions within his academic department points towards the importance of creating enabling contexts for lecturers' professional academic identity development. These enabling contexts and conditions must be available throughout the University and not only at the policy level or within professional development programmes. In conclusion, understanding why and how to create supportive contexts within professional development initiatives and academic departments is crucial for all role players concerned with lecturers' professional development and ongoing support as teachers through policy development and practice-based initiatives.

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Part II

PGDip (HE) Implementation and Transformation

Chapter 4

A context-specific, reflexive framework for demonstrating the impact of a Postgraduate Diploma in Higher Education

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Introduction

Much emphasis has been placed on the need for reforms in higher education (HE) in recent years, in South Africa and globally. From internationalisation, massification and marketisation, to decolonisation, blended learning, and education for social justice, university academics have increasingly been faced with the need to adapt their teaching practices and respond to these challenges. However, these issues are not new, with several already

recognized and acknowledged in the crafting of the Education White Paper 3 on Higher Education in 1997 (DoE, 1997), which aimed to transform the higher education sector post-apartheid. Despite evidence of some transformative shifts in curricula and pedagogic practices (Badat, 2020), there has arguably been little tangible overall change over the past 25 years, although the coronavirus disease 2019 (COVID-19) pandemic did precipitate significant shifts in lecturers' conceptualisations of curricula and different modes of teaching.

Recognising the seriousness of the slow pace of change, and the implications for student success, the Department of Higher Education and Training (DHET) published the National Framework for Enhancing Academics as University Teachers (DHET, 2018). The premise of this framework is that the transformation of teaching and learning in higher education may be accelerated through greater capacitation of university academics as professional teachers who are able to recognise and respond appropriately to teaching and learning (T&L) challenges in contextually relevant ways. As pointed out in the foreword of this document by Naledi Pandor, the then-Minister of Education, "Academics are appointed primarily for their disciplinary expertise and research capacity and it is not reasonable to assume that they will automatically be well-equipped to carry out this task, the task in question being teaching in higher education" (DHET, 2018, p3). The National Framework thus recommends that this issue be addressed by the formalisation of ongoing professional learning for academic staff across the nation's 26 public higher education institutions.

The statement above, by the then-minister of higher education, supports our own observation that unless equipped with an understanding of how educational concepts and theories relate to disciplinary contexts and practices, and an appreciation of their role as teachers, academics tend to respond to these challenges by implementing poorly conceptualised teaching and learning strategies, with potentially adverse effect on student learning. This issue came to the fore over the past few years during major disruptions such as the #FeesMustFall protests and the COVID-19 pandemic, when many academics struggled to

adapt to the changing circumstances during emergency remote teaching and learning (Motala & Menon, 2020). More recently, it was noticed in the rush to return to "normal" (traditional) modes of teaching post the COVID-19 pandemic, and in response to the emergence of generative AI (artificial intelligence) in the T&L arena.

While most universities were already offering a wide range of informal professional learning opportunities such as workshops and short courses, a few South African universities such as Rhodes University had already begun to offer more formal professional learning opportunities in the form of postgraduate diplomas in the field of higher education, as early as 2000[1] (Quinn & Vorster, 2016). Our own institution similarly conceptualised a two-year part-time PGDip E(HE) programme in 2012, offering it for the first time in 2015 with an average of 18 students per cohort since then.

In line with the expected learning achievements for postgraduate diplomas outlined by the South African Qualifications Authority (SAQA), our in-house PGDip E(HE) (hereafter, the PGDip) qualification is practice-based and highly contextualised. The overarching intention of the programme is not only to professionalise the practice of teaching and learning in higher education, but to also empower academics to transform their practices. It has also been a key intention of the programme to challenge some of the entrenched norms and values that have been adhered to not because it is necessarily in the best interests of students, but because it has "always been done".

The outcomes are achieved through participation in three compulsory courses on key elements of teaching and learning, viz., Learning and Teaching in Higher Education, Assessment for Learning in Higher Education, and Curriculum Development in Higher Education, and two elective courses (viz., Supervision in Higher Education, and one focused on the scholarship of T&L named New Directions in Higher Education). The programme is voluntary, with participating academics applying and registering for it of their own volition. It should also be noted that some prior

1 Rhodes University started offering the PGDip for lecturers in 2000 and the PGDip for academic developers in 2011.

higher education teaching experience is an entry requirement. It is, therefore, not only a professional learning opportunity for novice academics but for those who have a range of prior experiences on which to reflect. Reflection and reflexivity are critical components that were intentionally and systematically built into the PGDip to elicit transformative shifts in perspectives on teaching and learning in higher education as well as professional practice. This forms part of the process of (re-)negotiating their identities as teachers in higher education (Benvenuti et al., 2022). The question for the authors of this paper, all of whom are facilitators on the programme, is the extent to which the pedagogical strategies have enabled reflexivity in the participants and have impacted positively on discipline-based teaching and learning practices.

The role of reflective practice

As facilitators on the PGDip programme, we have placed reflective practice at the core of our teaching, course design and assessment practices since the inception of the programme in 2015. The disruptions to our teaching during the #FeesMustFall protests in 2016 and 2017, and the COVID-19 pandemic (from 2020 to 2022) prompted us to reflect more deeply on our pedagogical approaches, and to adapt our teaching for different modes. Brown (2020), an assessment scholar who wrote about learning in Ireland during the COVID-19 pandemic, made the following comment: "The pandemic has given rise to an ongoing process of reflection on the learning affordances and constraints of ERT and an examination of the extent to which online teaching and assessment could enable engagement and learning." We argue, however, that regardless of the external pressures, reflection implies a deliberate process of focusing on shifts in thinking that lead to changed teaching practices. Our intention is to model critically reflective practice for the course participants and to provide them with the necessary knowledge and tools to develop and adopt a reflective approach to university teaching and learning (Ashwin et al., 2015) and to contribute to knowledge production through the scholarship of teaching and learning (SoTL) in higher education.

In this chapter, we consider the role of critically reflective teaching in enhancing the quality of lecturers' professional development and teaching practice. In a prior investigation of the nature of reflective practice as a core principle and practice in the course (Dison, 2016), we focused on the distinction between different forms of reflection: reflection on the subject content, reflection on practice and reflection on premises and assumptions (Mezirow, 2000). These forms of reflection enable participants to "systematically re-evaluate (their) teaching experiences in order to change (their) future teaching practices" (Ashwin et al., 2015). Models of critical reflection (Brookfield, 2017) have been integrated into the course to enable participants to support students effectively *and* to further equitable access, social justice and decolonisation. We have achieved this by giving students multiple opportunities in all the PGDip courses to reflect on higher education theory and concepts in relation to their personal experiences and the wider socio-political context. For example, weekly reading responses provide a set of guided questions that help participants to read the texts critically and to reflect on the implications for their teaching practice. We have increasingly paid more attention to the quality of reflective writing as participants are encouraged to engage actively with exemplars and rubrics of "effective" reflective writing embedded in the assessment tasks. These tasks explore the extent to which course participants have begun to think more deeply about what they are trying to achieve to make sense of their teaching experiences. Participants are required to make apparent their assumptions and the values supporting their teaching and assessment practices and reflect on the relevance of sustainable pedagogies, for example, giving students opportunities to evaluate the processes and outcomes of learning collaboratively. The reflective activities described above go some way towards assessing participants' use of the course concepts and processes to illuminate and transform their teaching approaches.

The varied reflective activities play a central role in assessing participants' use of the course concepts and processes to illuminate and transform their teaching approaches. We also recognise the usefulness of participants' critical reflections for informing our course design and teaching on the PGDip and

this ongoing reflection has boosted our professional expertise as course facilitators. However, while the goal of achieving transformative shifts in perspective and praxis through reflective practice may be a valuable one for course facilitators and participants, and infused in most formal professional learning programmes, demonstrating evidence of genuine transformation and subsequent impact is much more elusive, as discussed next.

Determining impact of professional learning opportunities

Sutherland and Hall (2018) point out that AD (academic development) programmes, especially grant-funded ones (which our programme originally was[2]), must be able to demonstrate "impact". They rightfully claim that "we should all aim to show that our work is meaningful, valuable, worth the time invested in it, and yes, impactful." (pg 69). Bamber and Stefani further highlight the need to demonstrate evidence of value and sustainability of impact (Bamber & Stefani, 2015). In most higher education contexts, value and impact are usually determined through analysis of pass rates and various student satisfaction evaluations conducted at the point of completion of the modules or at the end of the qualification. However, Kervin (2007), Wayne et al. (2008) as well as Opfer and Pedder (2011), caution that the link between professional development initiatives and student outcomes is not automatic, nor can it ever be directly correlated. Shifts in praxis as a result of engagement with professional learning are influenced by a multitude of interacting factors that cannot easily be separated. Similarly, Chalmers and Gardiner (2015a), and Sutherland and Hall (2018) highlight that evidence of the impact of academic development programmes is known to be challenging to demonstrate, and as a result, critical questions (including whether programme participation leads to shifts in praxis, and whether changes made as a result of participation are sustained), often remain unanswered (Sutherland & Hall, 2018).

Regarding our PGDip programme, demonstrating impact has been a persistent question for us. Furthermore, being initially

2 From 2015-2019, funding was available for the mentoring programme aligned with the PGDipE(HE).

primarily grant-funded, we were aware of our contractual obligation to provide evidence of causal influence and impact of the funded qualification. We have been able to address this to some extent through the course evaluation surveys and focus group evaluations, and the use of evaluative frameworks such the Academic Professional Development Effectiveness Framework (Chalmers & Gardiner, 2015b), through which we were able to glean some important insights into the experiences of participating academics of the different modules. However, while these evaluations yielded some notable insights on the different modules, as course coordinators, we have been cognisant of the fact that the wider impact of the programme on the identities of alumni and the impact on students of alumni and the wider university community, has been difficult to determine. Benvenuti et al. (2022) have addressed this gap in their research, by showing the impact of the PGDip on perceived agency as T&L advocates in a group of alumni. In particular, the study illustrates the lack of recognition that alumni feel that they receive in their own disciplinary contexts, and the fact that it is still very challenging to demonstrate, in a nuanced yet tangible way, the extent to which their participation in the PGDip programme transformed their T&L practice and impacted on their academic careers as well as their students. Participants spoke of improvements in their teaching evaluations (evidenced in peer and student feedback on their courses and their teaching as well as improved pass rates), scholarly outputs such as participation in conferences and peer-reviewed publications, greater activity and participation in various institutional and national T&L activities and communities of practice, as well as the adoption of advocacy roles. For some, however, there was still a sense of not being able to demonstrate the complex and multi-layered impact and influence of participation in the PGDip in their various disciplinary contexts. The result is frustration arising from the tension of being able to exercise their agency in some contexts while feeling seemingly constrained in others.

We, as course coordinators, have engaged in a similar process of reflection to that of the alumni on the impact of our engagement in the PGDip as AD practitioners. However, there remains the issue of the lack of an appropriate mechanism or

framework for reflecting on, and subsequently demonstrating, the impact and influence of formal professional learning such as the PGDip on professional practice in an integrated and meaningful way, that constrains our own ability to effect meaningful changes in T&L in our various roles and contexts. The outcome of this realisation is our conceptualisation of the "3P" framework, which offers a structured approach to reflecting on the PGDip programme in a way that would allow for the wide-ranging impact of the PGDip on teaching practices, agency and advocacy, as well as academic identity, to be evaluated and demonstrated.

The 3P Framework

At a basic level, the 3P framework provides a structured and integrated approach to reflection on the three dimensions of academic life most likely to be impacted by participation in the PGDip, viz., **P**ersonal growth and transformation, **P**rofessional recognition, and **P**edagogic practice, within the different contexts in which these facets of academia are likely to occur (i.e., within the discipline one is located and teaches in, institutional T&L activities and commitments, and participation in national and international (global) scholarly activities, including engagement in the scholarship of T&L) (Figure 4.1). These areas intersect (Figure 4.1), and are mutually reinforcing, gradually shaping academics' "teacher" identities, values and attitudes in the process.

Varied activities across the programme enable participants to critically reflect not only on their enhanced understanding of higher education pedagogies and practices, but also on their developing teacher identities and the implications thereof for their discipline-specific academic identities. Through the framework, participants can delve into the intersectionality of these three areas to enhance self-directed professional growth. This is similar to the model of science identity (Carlone & Johnson, 2007), in which the authors propose a model to describe the development of science identity in relation to the dimensions of developing competence, performance of scientific practices, and recognition as a scientist by one's self and others. Lecturers participating in the PGDip, however, already have well-developed disciplinary

identities, and engagement in the PGDip integrates and expands on this already-existing professional identity.

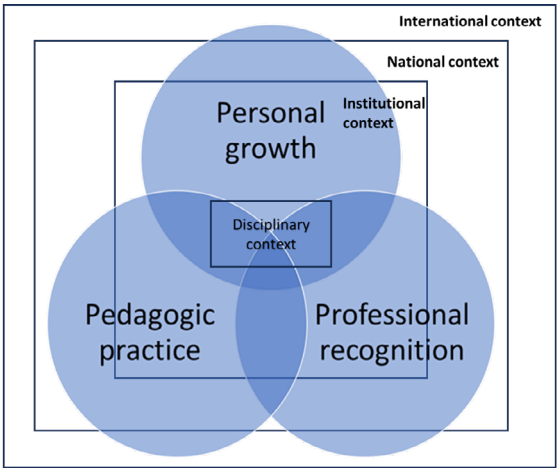

Figure 4.1: Area of academic teacher identity that may be influenced through participation in the PGDip

The integration of reflection on the different contexts in which these areas of professional identity can manifest also increases the scope and depth of reflection on practice, while also allowing for integration and coherence between research, learning and teaching, as well as academic citizenship activities. The framework is thus encompassing of all areas and all likely contexts of the academic role. The nested nature of the 3P framework (where each criterion can be reflected on in relation to other criteria vertically and horizontally), thus provides the opportunity to identify and reflect on the sites and nature of the various influences of the PGDip qualification, facilitated by the addition of prompt questions (Table 4.1).

Table 4.1: The 3 P framework for facilitating reflection on the impact of PGDip on Personal Growth, Pedagogic Practice and Professional Recognition

3 Ps Reflective and Reflexive Framework	Curricula Context (inclusive of learning, teaching and assessment)	Institutional Context	National Context	Global Context
Personal Growth				
Location of self in curricular processes	Is your voice, philosophical and ideological values reflected in your course curriculum selection, decision making processes and activities? How did your PGDip participation enable this?	Share how your voice, philosophical and ideological values find or do not find expression in School and Faculty committees and meetings? How did your PGDip participation strengthen this?	Describe your contributions at national T&L / HE conversations and initiatives? How has the PGDip participation enhanced this?	Describe your global T&L footprint? In what ways has the PGDip influenced your ability to add your voice to the global platform?
Decolonial being - disrupting taken for granted HE assumptions	What assumptions do you have about your students and your approaches to learning and teaching, assessment and curriculum practices? Did participation in the PGDip challenge these assumptions for you?	In what ways are you able to identify and challenge entrenched constraining institutional values and beliefs about students and about T&L?	In what ways are you contributing to national initiatives to transform higher education?	What assumptions about global T&L approaches and trends did the PGDip reveal to you? How has this shifted your thinking about T&L in your context?

3 Ps Reflective and Reflexive Framework	Curricula Context (inclusive of learning, teaching and assessment)	Institutional Context	National Context	Global Context
Working with underlying power dynamics and imbalances	Are you able to identify, mediate and negotiate the power imbalances with respect to engaging your students? In what ways did the participation in the PGDip equip you to identify and address any imbalances?	Are you able to identify, mediate and negotiate the power imbalances with colleagues and institutional managers? In what ways did the PGDip enhance your confidence to do this?	Have you gained more confidence to engage with "experts" at a national level? In what ways did the PGDip enhance your confidence to do this?	Have you gained more confidence to engage with "experts" at an international level? In what ways did the PGDip enhance your confidence to do this?
Identity shifts - navigating disruptions, discomforts and vulnerabilities	Has your view of yourself as an academic shifted because of participating in the PGDip? In what ways? How are you navigating this shift?	Have your interactions with colleagues changed because of shifts in your academic identity? How did the PGDip prepare you to navigate this shift?	Are you comfortable to engage as a T&L scholar in T&L spaces at national level? How did the PGDip prepare you for this?	Are you comfortable to engage as a T&L scholar in international T&L engagements? How did the PGDip prepare you for this?
Professional Recognition				
Networking	In what ways has your academic teacher network expanded institutionally, nationally and globally? How did the PGDip influence this expansion? What are some of the challenges in establishing and broadening your network?			
Mentoring and Coaching	Do you have an institution-based T&L mentor? Have you transitioned to a mentoring role in your discipline?			
Communities of Practice (CoPs)	In what ways do you feel a part of or not a part of a multidisciplinary HE Learning and Teaching community? Have any collaborations or further CoPs been initiated through this engagement?			

3 Ps Reflective and Reflexive Framework	Curricula Context (inclusive of learning, teaching and assessment)	Institutional Context	National Context	Global Context
Learning and Teaching organisations / committees	In what ways has your participation in the PGDip led to curriculum review and reconceptualisation?	Are you participating more actively in institutional teaching and learning committees, organisations, and/or communities of practice?	Are you more active in national T&L committees and organisations? What is your contribution to these?	Are you more active in international T&L committees and organisations? What is your contribution to these?
Pedagogic Practice				
Learning and teaching	How have your perceptions of T&L changed? What pedagogical changes have you made? What disciplinary theories, frameworks or models influence your pedagogical choices? How are you sharing your insights and knowledge of professional practice at different levels with others in your institution, nationally and internationally?			
Assessment and Curriculum practices	In what ways has your practice changed? What new challenges have arisen because of any changes made? What new insights and or approaches have you brought to your department' s curriculum practices? What are some of your unresolved or new questions or challenges in this area? What ideas/ strategies have you formulated for working this through?			
Scholarship practices Being a reflective and reflexive HE practitioner	In what ways have your scholarship practices been influenced? Are you involved in Scholarship of Teaching and Learning (SoTL) activities or research projects at institutional, national or international levels? How are you responding to the HE context, trends and challenges? e.g. position papers on blended learning. How are you influencing the HE context through teaching, research and academic citizenship roles?			

Personal growth

The area of personal growth offers an opportunity to consider how the PGDip influences participants' personal frames of reference, including their sense of "self" and sense of "fit", bearing in mind that participants, as mentioned, come from different disciplines, with different (and sometimes contradictory) academic discourses (disciplinary norms, dispositions, values, and attitudes) compared with the field of higher education. A PGDip alumnus' personal frame of reference is an indication of their socialisation process and draws attention to their cultural learning engagements manifested as social norms, dispositions, values and attitudes. Pataraia et al. (2014) speak of the long-term effects that these characteristics have when internalised. These authors draw attention to learner's intrinsic values (the process and content of learning); instrumental values (gaining credits, appreciation, vocational competencies); exchange values (value of an academic degree) and social values which meld and shape academic dispositions and identities. The 3P framework enables the identification of potential shifts in frames of reference and values by asking participants to reflect on how they see and locate themselves in the HE landscape and the learning and teaching processes that they experience as lifelong learners. They may for instance, be able to engage in more varied ways with the Discourse (Gee, 2000) of higher education after participating in the programme. In addition, they may also develop more nuanced perspectives and insights on the epistemologies of their own academic disciplines through their reflections, opening possibilities for addressing wider HE issues such as decoloniality and transformation of HE.

Reflections on decolonisation and decoloniality is a personal journey that often takes one beyond the boundaries of the concept of decolonisation, to a deeper, more critical exploration of taken-for-granted assumptions. An increasing use of decolonial discourse in HE enables reflective pauses to consider the self and transforming perspectives in relation to the academic roles within different academic contexts. These moments of grappling through challenging taken-for-granted assumptions about the self can lead to affirmations, self-validation and legitimacy of

self within a context that contributes to being a confident and transformative disciplinary professional and T&L practitioner. The opportunity could also provide an in-depth understanding of one's own authenticity and may trigger agentic decisions towards further personal and professional transformational action. The 3P framework and the prompt questions may facilitate such reflections, creating the opportunity for personal transformation which may lead to engagement in further research, scholarship, discussions in communities of practice or national and international conference participation, expanding the scope of influence of the PGDip beyond the personal to the professional, and from disciplinary contexts within specific institutions to impact at national and international levels, with possibilities for facilitating transformational change at all levels.

The personal realm may also relate to agency concerning decision-making and actions afforded via the role which one occupies, which, in turn, has a direct relation to power dynamics and identity. It is important to understand how the participant can use the Discourse gained through participation in the PGDip to identify, mediate and negotiate instances of encroaching power imbalances. Benvenuti et al. (2022), for instance, illustrate the tensions and discomfort experienced by participants as they shift from the role of disciplinary expert to the role of student (novice) in the new discipline of higher education. Yet as they work through the liminality and uncertainty of a different disciplinary Discourse, a new professional identity takes form, in which disciplinary expert and teacher of the discipline are merged. Indeed, the findings by Benvenuti et al. (2022) suggest that participation in the PGDip may lead to significant transformation in beliefs and views of T&L in higher education. Unfortunately, it is this new identity that may prove troublesome when participants re-enter their disciplinary spaces, where the embodiment of the shifts in thinking and the desire to effect changes may be met with structural and cultural constraints. Similar dissonance may occur if PGDip participants and alumni also begin to engage in the Scholarship of Teaching and Learning in a more focused way, through research on their teaching practices, shifting from researchers located in their original disciplines to researchers of the teaching of their disciplines. Such shifts may present unique

challenges which may have a permanent effect on participants' professional stance within the discipline and the HE sector as well. The 3P framework thus offers a means of effectively reflecting on and capturing such shifts, to provide identity grounding and perspective.

Professional

Of late, academics have been overwhelmed with not only an increase in workload but also increasing variations of what is expected to be completed. This links well to the words "Everyone Wants You to Do Everything" by Olsen and Buchanan (2017), who researched teacher educator's professional identity as an active process phenomenological self-construction within the flow of daily activities, past and present. Like their study, we too use a sociocultural lens that considers academic development (in our framework) as an ongoing process of becoming. The intention is to analyse the multiple sources and processes that constitute development as well as the contextual realities that provide resources for and constraints on this process of becoming (Olsen & Buchanan, 2017). Identity should not be reduced to biography or cultural membership but should rather focus on how individuals build complex identities over time through mediated interaction with others inside multifaceted social worlds (Gee, 2000).

The **3P framework locates** the formation of the self within a particular social, cultural, and temporal context enabling participants to (re) construct themselves within the flow of the practices of the context in which they are participating (Olsen & Buchanan, 2017). At the same time, they are able to see how they shape the context in which they participate. A focus on professional identity development opens the space for dialogue about the varied professional learning and identity transitions required to be effective academics. Engagement with the reflective provides the opportunity to see professional identity as socially constructed and constituted, dynamic and fluid, complex and multifaceted and is constantly formed and reformed (Avraamidou, 2014).

Connectivity, networking and social exchange within the PGDip and across the institution can generate further

professional learning (Pataraia et al., 2014). These aspects can be mapped via the framework to show relationality, mentoring and opportunities across networks. Thinking about professional socialisation, procedures, processes, arrangements and relations (Leibowitz, 2014) provides the opportunity to identify and work with enabling and constraining aspects related to one's professional engagement.

Strategic professional networking opportunities through the programme, like engaging with a programme mentor could provide experiences to enhance one's capacity for being an effective mentor and mentee. Disciplinary and multidisciplinary mentoring and coaching within and beyond the institution can be reflected on because of the mentoring relationships established through the programme. Cross-disciplinary engagement and collaboration afforded by the programme also present opportunities to initiate and be part of communities of practice that work towards enhancing HE as a public good. The framework can reveal possibilities for collaborating within and across disciplines intent on knowledge generation.

A shift towards a more scientific identity in HE, as proposed by Carlone and Johnson (2007), begins to emerge with increasing engagements with the scholarship of teaching and learning activities in the final course of the programme. There is a gradual shift from reflections on T&L to more research-informed contributions towards knowledge generation within HE through research, peer review and publications. Accounting for an increasing publication index can reveal relevant recognition and acknowledgement by peers and other experts within disciplinary and HE communities of practice.

Practice

While shifts in personal and professional identity are noteworthy, the primary aim of the PGDip E(HE) lies beyond performativity as learners on a programme but within a combination of roles while journeying through various courses and the programme as a whole. As coordinators and facilitators of the programme, our goal, first and foremost, is to achieve transformation in praxis, through critical engagement and reflection on the practice of

learning and teaching, assessments, curriculum development and the scholarship of teaching and learning in HE. This aim is shaped by participants' exploration of contextual and situational conditions as well as causal mechanisms influencing their teaching and students' learning. As discussed earlier, delving into reflexive practice also offers the opportunity for criticality through purposeful curriculum interactions that enhance the relationship between facilitators and participants as evolving HE practitioners. The potential also exists for systematic recording of critical T&L incidents, the shifts, decisions and actions taken in response, and personal reflections on emerging and evolving T&L issues. This recording can be used to compile a teaching portfolio, as required for the purposes of confirmation and promotion. Furthermore, the scholarship of T&L practices provides the platform to influence HE across disciplines and institutions nationally and globally. The PGDip starts with an individual focus on enhancing T&L praxis. Through an integration of personal reflection and collective reflexivity as HE practitioners, the PGDip platform morphs into opportunities for systemic T&L shifts that can enable social justice goals and the enhancing of student access and success.

The 3P framework as a mechanism for integrated reflection and transformation

As illustrated, the framework is designed as a flexible mechanism and an organising structure that promotes a culture of systematic reflection on and reflexivity of the self as a person, professional and practitioner. The structuring of the framework considers a stakeholder's agentic, socio-academic, cultural, societal and socio-political shifts that can be traced and further reflected on over a range of time periods before, during, immediately after and a long while after interaction on the programme. To this effect, the coordinators have instituted a PGDip Alumni Association offering participants a platform for further personal, professional and practice collaborations. The 3P framework can gain currency beyond the programme if formally used by programme coordinators and the alumni for individual or collaborative research purposes. It holds the possibility for further cyclical and

iterative processes of deconstructing and reconstructing one's thoughts, ideas, experiences, assumptions, dialogues, practices, structural, cultural and social realities by providing opportunities to gain more knowledge about the self and one's positioning within a myriad of social contexts.

The 3P framework follows Lonka et al.'s (2004) suggestions for multilevel consideration and context when trying to gauge influence. They consider a general orientation (the way that a student is orientated to the course and learning on the course); course-specific orientation (all aspects pertaining to the course) and situational orientation (a specific situation of the course or learning task that the student approaches). Although there may be overlaps between and interaction amongst the categories, the varying levels help to reflect on each experience based on the level's unique nature and composition (ibid, 2004). The 3P framework provides a structure for facilitating reflective and reflexive narratives via the multilevel prompts enabling an elaborated picture of the dynamic relationship between contexts and levels. This can help to understand and explain the impact and influence of participation from an evaluative and quality enhancement perspective. Rather than deterministic questionnaires, the expected descriptive critical narrative of the self, required for this framework, becomes a more validated self-report around programme impact and influences (Pataraia et al., 2014). These reports can be used for qualitative research purposes. The 3P framework holds the potential to generate reflective and reflexive data in varied formats besides text. Reflections through the framework can be captured as voice notes, sketches, hyperlinks and alternate forms of auto ethnographic expression. The structure of the framework allows for a more nuanced and self-expressive reflection on impact and influence of a programme when compared to the traditional institutional structuring of student evaluations which can be restrictive questions and a "tick box" exercise that de-centres teaching and learning experiences.

The reflexive and critical methodological approach adopted by the 3P framework has the potential to positively respond to HE's transformation imperatives. For instance, the 3P framework addresses the requirements of the Quality Assurance Framework

(QAF) recently introduced by the Council on Higher Education (CHE). The QAF is promoted as responsive, progressive and flexible, and like the 3P framework, can apply across institutional, national, global and programme level contexts. The 3P framework is aligned with national transformation and social justice imperatives with intentional focus on academics and their students becoming well-rounded civic citizens with dispositions, values and competencies that are personally, professionally and practically relevant. The framework thus provides a mechanism for demonstrating self-learning and personal growth not only for participants and their students. It presents the opportunity to transform institutions of learning into learning organisations (Senge, 1990), "where people continually expand their capacity to create the results that they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (ibid:3). Given the ongoing need for transformation in HE, especially in contexts of lingering social injustices, the goal of institutional learning and collective re-imagining is not just noble but arguably imperative.

Conclusion

The 3P framework holds the potential for all the programme's stakeholders to delve deeply and critically into their practice of reflection and reflexivity. Unlike most evaluation frameworks that tend to legitimate and reinforce existing practices, the 3P framework leaves room for an authentic account of an individual's growth and their journey of being experts in their disciplines to becoming reflexive and scholarly teachers of their disciplines, facilitated through participation in the PGDip programme.

In this chapter, we have demonstrated how critical reflexivity has become a regular course element and participants' perceptions and experiences are respected and incorporated in the ongoing reiterative course design of the programme. It is common practice for the facilitators to elicit ongoing feedback in formative and summative evaluation processes and to model their own reflective practices of curriculum negotiation by involving participants optimally. We argue that the modelling of

reflexive practice as a way of negotiating our tacit assumptions is perhaps one of the most powerful pedagogical approaches for eliciting participant engagement and shifts in praxis. Our approach to integrating reflective practice in the programme fits well with the 3P framework as a mechanism for integrating "evaluation" processes in a more systematic and systemic way. The comprehensive use of the 3P framework can shape personal shifts, with a potentially cascading influence on institutional transformation, change and innovation in higher educational, and societal reform. The framework's salient contribution is the potential to draw attention to an individual's commitment to educational transformation for more equitable higher education outcomes. Different applications of the framework may also enable institutions to identify the factors that are either enabling or constraining wider efforts to transform the HE sector, thus potentially serving as a lever for effecting changes. Structures need to be strengthened to build a critical mass of academics who value teaching as well as research and who are developing identities as teachers of their disciplines alongside their researcher identities. Through the PGDip programme and the application of the 3P framework in institutional evaluation processes, we may indeed reach the critical mass of reflective and reflexive practitioners needed to support ongoing efforts to transform higher education.

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Chapter 5

Reflections on a PGDip in Higher Education Studies at a South African university: An analysis using Shulman's knowledge categories

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Introduction

Academics in South Africa are appointed based on their disciplinary expertise and do not require any formal education in pedagogics (Ndebele, 2022). This results in academics not necessarily having appropriate pedagogical knowledge and pedagogical content knowledge (Shulman, 1987); they may also not have deep knowledge of teaching in the context of diversity (Northedge, 2003), a stance towards and approach to decoloniality (Lebelo et al., 2021) and in relation to academic and

student vulnerability (Behari-Leak et al., 2019). It is generally considered that a sound knowledge of theoretical content and research methods in the disciplines, such as those offered by advanced degrees, is no longer sufficient for academics in higher education institutions (HEI) (Aziz et al., 2010). Moreover, with the advent of the Internet and generative AI (artificial intelligence) - Gen AI (Smolansky et al., 2023), a predominant emphasis on disciplinary knowledge that can be easily sourced by Gen AI will devalue the role of the professional educator in higher education, if academics do not have a sophisticated understanding of how higher education can contribute to knowledge building and human flourishing and how the role of the higher education teacher contributes to those aims.

University educators can acquire teaching and learning competencies and skills in many ways, including through collaborative or inquiry-based learning, professional development (PD) courses, workshops, seminars, discipline-specific conferences on teaching and learning, as well as learning from colleagues or from formal teaching qualifications such as the PGDip in Higher Education Studies (HES) (hereafter, the PGDip) (Kerka, 2003; Oleson & Hora, 2014).

Kerka (2003) argues that it is difficult to prove whether academic development courses make a difference; however, there is general consensus that professional development for educators is linked to improved teaching and learning outcomes. Guskey (2002:46-47) has developed five questions to evaluate whether professional development for teachers makes a difference by asking (1) what were the participants' reactions, (2) what knowledge and skills did they acquire, (3) was the implementation supported by the organisation, (4) did participants effectively apply the new knowledge and skills, and (5) what was the impact on (their) students? We focus on Guskey's second question to evaluate our own knowledge and skills development in the PGDip, from the perspectives of the participants (the authors) of the programme. In particular, we explore the following three research questions:

- How has the PGDip shaped us as professional educators in our disciplines?

- What knowledge and skills were developed as part of the programme?
- How have the different modes of teaching and learning (online, face-to-face, hybrid) impacted our learning?

One of our first encounters in the PGDip was watching a short video clip played in class by the course convenor about Father Guido Sarducci's five-minute university (Novello, 2007). In this clip, Father Guido proposes a university degree based on the notion that, five years after taking a course, students only remember about 5% of what they learned. In effect, he only teaches the threshold concepts of a few courses in five minutes and then has a graduation ceremony with photographs, snacks and a certificate. This poignant clip caused us to reflect on what we as PGDip participants would likely remember from the course a year after completing it and likewise what our students might retain from our own courses.

We chose to evaluate our own critical reflections on the programme to gain insight into the knowledge and skills which we acquired through the PGDip. We applied Shulman's (1987) knowledge categories as a theoretical lens when reflecting on the different kinds of knowledge which we gained from the programme. We start by examining the research context followed by a reflection on the PGDip in South Africa, including the PGDip at UCT (University of Cape Town), on which this chapter is based.

Research context

According to the Universities South Africa (USAf) Strategic Framework, a key purpose of higher education in South Africa is to impact the social, economic and cultural well-being of the country and the diverse South African population that it serves (USAf, 2021). The successful achievement of this purpose depends on how academics teach and nurture students, how knowledge and skills are taught, how values and attitudes are imparted and how universities respond to the challenges of meeting the learning needs of students. Fundamentally, how academics have been professionally equipped to teach is paramount to the success of this mission.

The University of Cape Town was established in 1918 to serve predominantly white English-speaking students who came from the elite and middle classes (UCT, 2023). However, the institution is transforming the space and its offerings physically and culturally as a means to accommodate a wide diversity of students and staff from different backgrounds. Learning about the higher education history and landscape, reflecting on teaching and learning experiences as a way to transform ourselves and our professional practices are rarely touched on in disciplinary courses, but it is integral to the PGDip at UCT.

PGDip programmes in South Africa

Academic development is an important aspect of the professionalisation of higher education (Behari-Leak, 2017; Leibowitz et al., 2016; Nkonki et al., 2014). A formal offering such as a PGDip can bring together theoretical, contextual as well as practical aspects of teaching in higher education (Skead, 2018). It integrates who we are as academics with what we know and how we teach (Skead, 2018).

Leibowitz et al. (2016) conducted an extensive, multi-institutional study to inquire about the professionalisation of academics in South African universities. Using a social realist perspective, they found that academics can develop their agency if a conducive environment for professional learning exists. Professional learning opportunities enable participants to challenge their beliefs about teaching and learning, observe excellent teachers (as role-models), conduct critical conversations with colleagues, navigate the tensions between research and teaching, adopt good teaching practices and collaborate on scholarly research across institutions.

Many studies have shown that the disciplines wield great power over the academics (Henkel, 2005) and that it is critical to provide a safe space for academics to develop their own identities (and biographies) as educators, to come to grips with the intersectionality of their students' pedagogic needs and their own agency as critically reflective teachers. Moloi and Chitumva (2017) and Ndebele (2022) emphasise that PGDips not only offer participants general teaching and learning knowledge but also

examine the relationship between pedagogic knowledge and disciplinary knowledge. They should facilitate the development of professional teaching identities, by supporting participants to shape their teaching philosophies and highlighting the importance of critical reflection. PGDips focus on the social context of teaching and learning and what it means to teach in student-centred ways.

Theoretical perspective

Vorster and Quinn (2015) identified the different domains of knowledge that were introduced in an early PGDip and then used aspects of Legitimation Code Theory to analyse how this knowledge was re-contextualised in the curriculum. This study was mainly from the perspective of the designers of the PGDip. For this study, we were specifically interested in understanding what knowledge and skills we (as the participants) acquired as a result of the PGDip programme. To theorise this perspective, we use Shulman's (1987) knowledge categories, a widely used framework in education that allows for the classification of pedagogical knowledge (Roness & Smith 2010; Grossman et al., 2009; Cochran-Smith & Zeichner, 2005).

Shulman (1987) proposes seven knowledge categories. *Content knowledge* pertains to knowledge of a particular subject - its histories, theorists, concepts, topics, literature, philosophies and debates. *General pedagogical knowledge* refers to broad principles and strategies of classroom management and organisation and how to include and engage a diverse class of students in discussion. *Curriculum knowledge* is knowledge about an educational system, instructional materials, different courses and programmes in terms of level, outcomes and ways in which content can be structured and organised into different topics as part of a course or lesson. *Pedagogical content knowledge* is the combination of content knowledge and general pedagogical knowledge that enables the teacher to be an expert on teaching a particular subject. It includes knowledge on how to go about sequencing and teaching threshold concepts in a specific subject. *Knowledge of learners and their characteristics* is knowledge of students' learning needs, preferences, their

backgrounds and contexts, and include the languages students speak and where they come from. *Knowledge of educational contexts* is about knowledge of educational systems or structures of a particular school or higher education institution, educational and institutional policies, communities and cultures. The final category refers to the *knowledge of educational ends, purposes and values* and their philosophical and historical grounds. It includes knowledge about learning objectives and dispositions needed in a particular career field.

An additional knowledge category that was not part of Shulman's (1987) initial knowledge categories is referred to as the *technological pedagogical content knowledge* (TPACK) (Mishra & Koehler, 2006). TPACK refers to knowledge about tools or technologies and how to use and integrate them into the classroom to enhance teaching and learning activities. In the following section we explain our research design and discuss the use of Shulman's (1987) knowledge categories, including TPACK, as a basis to analyse our reflections.

Research design

This is a qualitative study that draws on the critical reflections of the authors on our experiences as students in a PGDip at UCT. UCT's offering from the Centre for Innovation in Learning and Teaching (CILT) is open to anyone who has an undergraduate degree and relevant teaching experience in higher education at the time of enrolment.

The PGDip at UCT has a strong emphasis on transformation and decolonial imperatives and emphasises the development of students' critical voice and reflexivity (Behari-Leak et al., 2019). It consists of three core modules and an elective. The modules were convened and taught by different educators. The core modules in the course are: Learning Theories in Higher Education (LTHE), Assessment in Higher Education, and Course and Curriculum Design. The electives are: South African Education in Context, Online Learning Design, and Researching Practice in Education. The number of students differed in each module of the UCT PGDip during our years of attendance:

- Learning Theories in Higher Education (LTHE): 13 students;

- Assessment in Higher Education: 14 students;
- Course and Curriculum Design: 16 students;
- Elective: Online Learning Design: 30 students (which all three of us chose).

We were the only three academics or students from UCT who enrolled in the PGDip during the period 2020 to 2021. Key details of the researchers pertinent to the study are summarised in Table 5.1:

Table 5.1: Key participant details

Participant	Discipline/ field	Teaching experience	Qualifications
Author 1	Information Systems	Senior lecturer for several undergraduate and postgraduate courses	Diploma in Datametrics, PGDip (IS), B.Com (Honours), Master's degree in Commerce, PhD, PGDip HES
Author 2	Higher Education	New lecturer in a postgraduate course, with university tutoring and school teaching experience.	BA (Media), Diploma in Islamic Studies, PGCE (Postgraduate certificate in Education), B.Ed (Honours), Master's degree in Education, PGDip HES
Author 3	Health Science	Guest lecturer and undergraduate Science programme facilitator	Diploma in Islamic Studies, BSc (with Honours), Master's degree in Science, PhD, PGDip HES

One of the main aims of the PGDip is the development of reflexive (reflective) educators (Dison, 2016). Fundamentally, the process of reflection (re-)evaluates experiences, beliefs and knowledge in light of new insights or evidence (Kember, 2001). Reflection can operate at different levels and during different stages of an experience or event and has different meanings depending on the stage and the level (Kember et al., 2008). Critical reflection

involves a change in belief and requires some time between the initial experience and the development of new insights (Kember, 2001:174).

For this chapter, we use the concepts of reflection-in-action, reflection-for-action and reflection-on-action to describe the different stages of our reflections (Munby, 1989; Schön, 1983; Stynes et al., 2018). Reflection-in-action describes our reflections during the course; we engaged in reflection-for-action in preparing for the course and our teaching and employed reflection-on-action for our reflection on our learning and teaching practice after the course. Reflection-on-action is useful for learning and theory building and is also used by Shulman (2013) to inform his knowledge categories where "reflection" and the "wisdom of practice" are incorporated (Munby, 1989: 32).

As participants of the course, we were provided with access to our course documents by the course convenors. Our data included our own evaluation of our course tasks, assignments, forum discussion posts on the learning management system, portfolios and personal reflections that we completed as part of the PGDip.

After the course was completed, we met to discuss our experiences of the course. We each drafted a critical reflection outlining our key learning experiences and insights gained over the two years which we then shared with each other. We dedicated approximately 60 minutes to critically reflect on each module, after which each of us shared our experiences and asked each other questions for clarity. Focus group reflection is a valid data collection instrument where there is no hierarchy between the researcher and the participants, i.e. the participants *are* the researchers (Stynes et al., 2018). These group reflections were recorded and transcribed using MS Teams and Otter.ai. Our focus group reflections were guided by questions based on Shulman's (1987) knowledge categories. These systematic reflections provided us with broad themes (Shulman, 1987) to explore in our analysis of our key learnings in each of the modules. Data from our initial discussion and the focus group transcripts were then analysed using a content analysis approach (Elo & Kyngäs, 2008). This entails coding data based on known themes, categories

and concepts as well as looking at new emerging themes (Elo & Kyngäs, 2008). The results of our analysis are discussed in the following section.

Findings and discussion

The findings broadly follow the core themes that were identified from the theoretical framework as formulated by Shulman (1987) including TPACK (Chai et al., 2013). In addition, there were new themes that we identified in the process of coding our data, that did not fit with Shulman's (1987) and the TPACK knowledge categories, which were added to our final conceptual model.

Content knowledge

Content knowledge includes all the knowledge that we have of our disciplinary subjects as well as what our students need to learn (Shulman, 1987). Additionally, we added content knowledge of the field of teaching and learning that we learned from the PGDip. Three aspects stood out for us in our reflections, namely: feeling knowledgeable about the discipline of HES, learning about decolonisation in South Africa, and gaining further insights into relevant theories and practices in HES.

Feeling knowledgeable, empowered and confident

Content knowledge in the PGDip relates to knowledge about higher education: its key theories, concepts, models, topics, histories, debates and so forth. We gained a better understanding of how to apply the various knowledge components to our own practices. Author 2 explains a newfound ability to take part in discussions about teaching and learning:

> In this module, I really became aware of the use of assessments...[and] in the same period, I had to deal with academics who also had questions about assessments and how this was possible to do online. I remember working on a postgraduate course, where the lecturer wanted the students to take the exam with the cameras on...and it was about surveillance. So fortunately, I was also doing assessments and I could give input on that...[through

> asking questions such as]...what are you trying to assess? What are you doing to the students by having the cameras on? So I could have that conversation. (Author 2)

Learning about these concepts in higher education gave us insight into how we design our own courses as well as learning a language to speak to colleagues about different teaching and learning processes in our disciplines. Author 1 experienced value in learning new vocabulary:

> The readings were guiding us towards having...insights around relevant theories and things that can help us in both assessing and designing assessment...So we've got a new vocabulary which we learned as part of this course... (Author 1)

This new vocabulary allowed us to introduce this new knowledge in our teaching practices and to engage with our colleagues in greater depth about the pedagogic aspects of our disciplines.

Pedagogical knowledge

General pedagogical knowledge refers to the strategies and principles that guide our classroom practice (Shulman, 1987). This aspect not only includes the explicit aspects of teaching, but also the more tacit ways of being as higher education teachers (Barnett, 2005).

Professionalism of lecturers

From our reflections, one aspect that stood out was the respect and professionalism of the lecturers on the PGDip. In the words of Author 2:

> This was the very first time that I was part of a course where there were three academics. And I thought... how is this going to play out in Zoom... because in the online session, it's not always easy to control who's speaking when, and people speak on top of each other. But that never happened... so it was really done professionally. And

> I thought that they must have made arrangements prior to the session, and spoke about who was going to cover what part, or who was going to answer what. So... for me... thinking about when I was a co-teacher with three others [afterwards], it was nice to have seen it first and then do it, especially in the online space. (Author 2)

This high-level of professionalism allowed us to observe and experience facilitation performed well so that we could replicate it in our own teaching.

Different teaching styles

We experienced different lecturer personalities and teaching styles throughout the PGDip. Some lecturers were more casual than others in their classes, which created a comfortable environment where we could be ourselves:

> He wasn't formal. But not completely informal. He was sitting on his couch... And his music during break time - he plays music, going back to earth and then people sit here. (Author 1)

> In the Learning Theories (LTHE) classes, I felt like a student, whereas in the other courses, I felt like a peer. It felt to me more as if it was peer to peer learning. (Author 3)

The different lecturer styles made us more comfortable with our own approaches to teaching. Furthermore, the lecturers used various teaching strategies to start conversations with us, as well as illustrating how to engage students using online tools. Examples from our reflections include:

> I felt that he was really approachable...and he always asked us, do you have any questions?...[he] was inviting us to associate... (Author 2)

> She asked us to draw how we saw teaching and how we saw learning. And that, I felt, was genius, was ... a good way for us to start conversations about our own schooling, how we

> understand teaching and learning, and to show that there's not one way of doing it. There's multiple ways, and that hit home. (Author 2)

Through this, we learnt that there is no set way of being. It also made us more comfortable with *who we are* as lecturers, rather than trying to imitate or take on a different persona of *who we are not*.

Responding to sensitive topics

Another key pedagogical learning was about how to respond to sensitive topics or hold a particular viewpoint because of one's background or race:

> There was someone who raised a sensitive question and I was curious on how she would answer that as a white person. And she was very professional about it. She didn't agree or disagree, you know, she left it open. So, I admired that, because sometimes we find ourselves in those situations as lecturers, [and] how would you respond to that [question] was a good example of that. (Author 2)

> ... And I think because they are modelling educators ... we are getting a sense of how an educator could or should behave in a particular situation. And that gives us... modelling knowledge, but [also] gives us insights into the kind of knowledge that we would need, which then would relate to pedagogical knowledge that we could apply in our own practices. (Author 1)

We also learnt how to prepare for the different modes of teaching and learning; and how things can be out of your control at times:

> A big part of the learning was also for us to experience the learning of the educator as we're going along. Because again, they were not prepared to go online. And if we're going to be looking at it in the different modes of teaching, that means that we actually had a better learning

> experience…we were also learning from our side so that we could then use that in our own teaching]. (Author 1)

Although the above example refers to technological pedagogical knowledge which is discussed later, it is important to reflect on how the lecturers on the course adapted to the challenges before them, and how we modelled our own responses in our own contexts after them.

Reflection and feedback activities

The participants on the course came from different disciplinary backgrounds that require different ways of teaching and learning. Since the PGDip is located in the social sciences field, we engaged in activities that were somewhat new to some of us. One such activity was the feedback provided on our reflections on course readings, on our learning on the course and on our teaching practices. The feedback on our reflections made us realise the value of reflection. We recognised that it was not just a "tick box" exercise; it was meaningful, especially when the feedback was given by a lecturer we respected:

> What I found interesting about the way of doing reflections was the fact that somebody was commenting on it… I got insightful comments from Lecturer B. And so I liked that aspect of how to use reflections because…[it is] useful for tracking your own personal growth from a student's perspective… (Author 3)

In some courses, reflection exercises were open for reading and commenting on by peers, which also presented opportunities for learning. The guiding questions that accompanied the reflections also played a role. In other courses the reflections tended to be more about the learning from the readings, whereas some tended to focus on the student's personal being. Having experienced different reflection exercises and how they were set up, we were inspired to use and adapt reflections in our own teaching contexts in different ways.

Pedagogical content knowledge

Through the multi-disciplinary nature of the programme, we learned things that were relevant to our own disciplines, from the facilitators and our peers. This allowed for a richer application of the theories and assignments to our own teaching contexts:

> I think it is [the] realisation...that the disciplines are different, and they have different ... styles and approaches to teaching, etc. Because ... I [was] striving towards a universal kind of teaching approach, like more a philosophy of teaching, you know, finding something that works...So, for me, the learning was that there are different styles has changed my teaching practice. (Author 1)

Much of the learning in the programme occurred because of the varied pedagogical approaches employed by the facilitators of the four courses, the inputs by fellow course participants, the guest lectures by participants from the previous year's courses as well as the constant self-reflection activities that we were engaged in.

Pedagogies of vulnerability and socially just teaching (Lebelo et al., 2021; Behari-Leak et al., 2019; Winberg et al., 2016) were further explored as part of the pedagogical content taught in the programme. For instance, in the LTHE module, decolonisation in the disciplines was purposefully discussed. In addition, students were required to share their views and what was happening in their own institutional contexts.

Curriculum knowledge

Curriculum knowledge, as defined by Shulman (1987), refers to knowledge of how our courses fit into programmes and qualifications and how to structure lessons in our own curricula.

Knowledge about designing curricula and courses

One of the curriculum knowledge areas that we learnt about was how designers think when designing curricula and courses. This provided us with key understandings of the kinds of decisions that are made during the design process and how course design can be of advantage or disadvantage students. Furthermore, it gave us

insight into how to approach curricula and course design in our own contexts:

> The biggest…learning…was the storyboarding, …the visual aspect of it. And I also liked the fact that it was very methodical in terms of giving you a very specific way to do this, and then you do the next step. …I found that very helpful. (Author 3)

Experiencing learning in the online course delivery mode further influenced the way that we approached the design of our own courses. We noticed that the relationship and communication between lecturer and students were somewhat compromised in the online mode compared to when we met each other in person. This experience presented us with an opportunity to consider how to go about teaching and learning in an online mode so that it does not feel awkward or unnatural. We also noted that relationship-building is important and needs to be factored in when designing courses and curricular activities.

Learners and their characteristics

Knowledge of learners and their characteristics entails knowing our students' learning needs and contexts (Shulman, 1987). We elaborate here on how a greater understanding of ourselves as students led to a greater understanding of our own students and their contexts.

Gaining a better understanding of our students and their structural locations

The PGDip and the period during which we were enrolled in it, made us more aware of our own students' learning needs and situations. For example, Author 2 noted:

> [I] think about how I can make assessment fair, thinking about the different backgrounds of the students and their experiences, and also thinking about the online ways of doing that, …knowing that students may have data cost issues, some might have different speeds of laptops or

> not even have a computer, and they might be using their phones...

The PGDip also prompted us to think more deeply about our own online courses:

> I needed to think...more deeply on how I would redesign that [my own IT] course for the online space...And being part of an online course that was being delivered during the pandemic, allowed me also to learn new tools, techniques and strategies, which I could then you use in my own course design. (Author 1)

This led us to think critically about the factors that students face and what approach may be needed to ameliorate their constraints.

Students' challenges viewed through our own experiences

Learning in emergency remote and online modes resulted in students experiencing isolation, being overwhelmed, and several other emotions that were unusual in the classroom environment. As students in the PGDip, we experienced our own personal challenges:

> I was going to deregister from the course, but [Lecturer B], ... encouraged me and said... we can assist, we will help you as far as possible, we will help you to finish the course, if that's what you'd like to do... (Author 3)

It is crucial for lecturers to be aware of and sympathetic to the various situations and emotions that students may be faced with during times of transition. Throughout the programme, we experienced how the lecturers demonstrated support and compassion in their own unique ways. This in turn made us more aware of the challenges that our students faced and how to support them in appropriate ways.

Educational contexts

Knowledge of educational contexts goes beyond the knowledge of our roles as educators in higher education; it is also about knowledge of institutional policies and practices (Shulman, 1987). Two particular aspects stood out for us about the context during emergency remote teaching (ERT), namely the course load and the decolonisation imperative in South African higher education.

Course load and pacing

The Online Learning Design course was the most taxing because of the high workload. It was an activity-rich course filled with readings and assessments that often required learning a new technology or software before using it. In addition, the online mode had intensified feelings of anxiety and exhaustion amongst the students. One of the participants describes the course as a "monster of a course," based on all the tasks involved.

This course was extended from the one-week full-time course in the face-to-face mode to a two-month course in the online space. This experience had thus made us cognisant of how we ourselves may be designing our courses in ways that times, credits and course activities are misaligned.

Decolonisation in the South African Higher Education context

Another key theme that stood out for us was the decolonisation of higher education; what it was, and why it was needed and how to go about it:

> And I liked the whole theme [in] LTHE about the dominant culture, about decolonisation, and how assessment carried on with that. And it was really interesting coming from a white man... I thought [Lecturer A] would not touch on it, but he did. The whole programme made us aware of how we can decolonise the curriculum, how we need to be as teachers, as lecturers. (Author 2)

> She spoke about decoloniality. That actually made me feel very uncomfortable because I remember thinking... I'm

> a person of colour, and decolonisation is supposed to be about previously disadvantaged people of colour, but I have always felt like I don't understand it... (Author 3)

In many ways, conversations about decolonisation made us more aware of the injustices, in the higher education context and in everyday life. It has also made us more critical and conscious of how we are in relation to our own contexts. These are not concepts that were widely discussed in our disciplines. And again, merely having these difficult conversations in the PGDip classroom allowed us to look beyond our primary disciplines to what has been on the horizon all along.

Educational ends

Knowledge of educational ends refers to knowledge of the purposes and values of education and how these relate to the coursework (Shulman, 1987). The programme changed our views on educational ends and to translate this idea into our coursework.

Changing our understandings of the purpose of education

A key theme that stood out for us was the value or purpose of education, particularly in relation to different types of assessments and their uses. We began to question our own understandings and how these had been formed. As author 3 notes:

> One of the things that really stood out and stayed with me was the notion of formative versus summative assessments. And because it was something that I was not familiar with, my understanding of assessment was always just 'it's the means to either passing or failing'. (Author 3)

As a result, our understanding shifted. We began to think and question the ways in which students' knowledge was being assessed and for what purposes:

> The other thing that stood out for me was the fact that there was a power dynamic, [I also questioned whether]

> we do things this way because it's always been done in this way? (Author 3)

Author 2 had a similar experience when learning about the use of assessment in gatekeeping which motivated her to contribute to the revision of her department's assessment policy. She notes:

> And gatekeeping - I was really shocked about how our systems are used to gate keep. Because I know that there are a lot of students that are very talented, have a lot of potential, but because maybe something happened in their life that they couldn't pass the exam... And [with] that mark, they can't get into university... And I... felt like I needed to do something, you know. And I know my department was working on assessment policy at that time. And I wanted to contribute in that way. (Author 2)

In this way, the insights from the PGDip helped us to change the way that we designed our courses.

TPACK knowledge

A new construct, added to Shulman's pedagogical content knowledge, is technological pedagogical content knowledge (TPACK) (Chai et al., 2013). TPACK examines how the lecturer integrates technological knowledge with content and pedagogical knowledge in their courses (Chai et al., 2013).

How to use new technologies in teaching and learning activities

People have different knowledge, skills and confidence when it comes to using technologies, particularly in their own courses. The activities and assignments in the PGDip often involved using digital tools and platforms that we were not familiar with. These included tools such as creating digital videos about our experiences, using applications like *Padlet*, *Jamboards* and *Miro* to brainstorm our ideas with others in an online mode:

> I'm not very comfortable using technology. And this was an online course. And the idea was that you use different technologies. And so, sort of integral to using technology is the fact that you need to learn the technology before you can say...make a digital story. You need to be able to make a video and you need to ... [know] about lighting... [and] editing a movie and putting in slides... so the technology part really stretched me. (Author 3)

Having to perform certain tasks in an online mode as well as experiencing it live, presented us with opportunities to become comfortable with technologies and simultaneously learn how to use them in our own teaching. However, there were differences in approaches when teaching with others in our own courses, particularly with lecturers who had not undertaken the PGDip. We often felt that we had to justify our actions or choices and at times needed to re-conform with what the course convenors wanted. Another barrier to using our newly acquired TPACK and skills was time constraints which prevented us from creatively and meaningfully incorporating these new tools in our teaching and learning activities.

Knowledge of the self as teacher

This category refers to the identity that the person forms as an educator in higher education as a result of changing their perspective from being a disciplinary expert to becoming an expert in teaching the discipline. For Tajfel and Turner (2019:283), this relates to one's self-image or self-identity that is "derived from the social categories to which he perceives himself as belonging." In our case, we required the break from our own disciplines to develop the requisite pedagogical knowledge through the PGDip.

Personal goals

There are different reasons why academics enrol in a PGDip. Author 3 wanted to learn strategies on how best to teach her specialist knowledge. Author 1, who had more than 10 years' teaching experience at various universities in South Africa, wanted acknowledgement of their expertise through a formal

qualification. Author 2, on the other hand, who had completed several postgraduate education qualifications from various universities in South Africa, enrolled to gain institutional recognition of her knowledge. However, the PGDip provided more than we wanted upon enrolling:

> Because I was doing my PhD and focusing on my teaching...I thought...it might be a good idea to do [the PGDip]. And there were also talks in the industry...[that]...it might become a requirement for educators to have a PGDip. (Author 1)

> I have a teaching background. I did a BA, PGCE, B.Ed Honours and my Master's in Education. So why I wanted to do the PGDip at UCT was...to have studied at UCT, because I always felt [out of place] amongst my colleagues and other people because I didn't study at prestigious universities like UCT. (Author 2)

For us, key reasons for embarking on the PGDip entailed exploring different career options at our university, gaining confidence and skills to enhance our teaching and working with students, to gain insights about the South African higher education context, to obtain a teaching qualification or for acknowledgement of our achievements as teachers.

Becoming comfortable with ourselves

In observing other lecturers in the PGDip, we in turn became more comfortable with our identities as lecturers:

> Just watching... like learning how to be, how to be with others, how to be when difficult questions are raised, how to still be respectful, and how to be yourself. I think that is what I take away from them [(lecturers)]. (Author 2)

Learning about the role of an educator in higher education shifted our understanding of ourselves in that we wanted to become the best educators that we could be. Author 3 shared her initial feelings about feeling like an imposter-type educator.

> I felt really, like I was sort of posing as an educator and wasn't really an educator. But what I found interesting was the exercise of who you are, and how you see educators. And you know, I think that is the first question we should ask … to think of an educator that inspired you or something like that. And that exercise was so powerful that it committed me to the PGDip. (Author 3)

In some ways, we all arrived at the notion that there was a certain type of individual that was suited to higher education. And being involved in the programme made us realise that we just needed to be ourselves; that there is no "ideal lecturer".

Multi-disciplinary knowledge

Multi-disciplinary knowledge (Lim & Richardson, 2022) refers to knowledge about other disciplines in the context of teaching and learning in higher education. This required us to go beyond our own fields to learn from participants from other disciplines.

Learning from others

Part of the richness of the PGDip at UCT is that it draws on a range of disciplines and allows students from diverse disciplinary fields as well as participants from other institutions to learn about how teaching and learning happens in different contexts, and how concepts, theories and tools are applied in those contexts:

> I also enjoyed the case studies where different academics were invited to share how they were applying certain topics or approaching course design. So, it was nice just to see something different and something real. (Author 2)

> I do remember Sergeant W from the defence force, you know, 'Attention!' and that kind of stuff and getting to grips with understanding from her view how she teaches military personnel certain things which is completely different to how we do [things] in academia… [It made me aware that] there isn't just one way to teach…. (Author 1)

Through the multi-disciplinary nature of the programme, we developed pedagogical content knowledge from the facilitators and our peers that was relevant to our own disciplines. This allowed for a richer application of the general educational theories and assignments to our own teaching contexts. It also resulted in a deeper and more relevant understanding of ourselves and our educational practices in context.

Revised Knowledge Categories

We found that some of the knowledge that we obtained and reflected upon did not fit Shulman's knowledge base categories. These are aspects such as knowledge about the self as teacher, multi-disciplinary knowledge and knowledge about the different modes of teaching and learning. We therefore suggest that two additional constructs should be included in Shulman's knowledge base categories; namely, *knowledge of the self as teacher* and *multi-disciplinary knowledge* and that *course delivery modes* be added to the TPACK category. This brings us to a revised depiction of Shulman's (1987) knowledge categories.

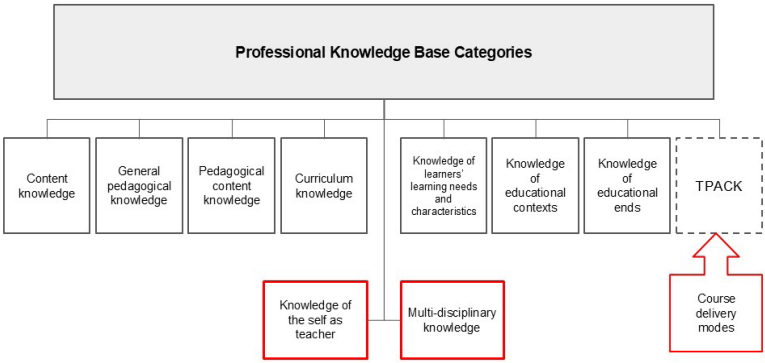

Figure 5.1: Revised Shulman's (1987) Knowledge Base Categories

We believe that knowledge of the self as teacher is an important knowledge category. This is because knowing who we are, our biases and ways of being in a social space, helps us to make more insightful decisions regarding our teaching practice, and to be

more conscious as teachers. There is no clear knowledge category in Shulman's (1987) knowledge categories where knowledge of the self as teacher would fit, besides the related construct of "knowledge of the learner and their characteristics." It is suggested that knowledge of the self as teacher is created as an additional construct considering the importance of a teacherly academic identity. This idea is in line with Beijaard et al.'s (2000) view that teacher identity is a critical knowledge component of teaching.

Multi-disciplinary knowledge (Lim & Richardson, 2022) refers to knowledge about other disciplines in the context of teaching and learning in higher education. This can include multi-disciplinary content knowledge, multi-disciplinary pedagogical knowledge as well as multi-disciplinary curriculum knowledge. We suggest that multi-disciplinary knowledge be added to Shulman's knowledge base categories or that the knowledge of educational contexts category be extended. This recommendation adds to the work of Behari-Leak (2017), who argues for the need to re-examine the (de-)colonial support of individual disciplines and simultaneously embrace the multi-disciplinary tensions inherent in the PGDip. This category does not imply in-depth content knowledge, but refers to knowledge of how learning theories and teaching decisions are applied in different disciplines.

We further recommend that the TPACK model (Chai et al., 2013) be expanded to include knowledge of *course delivery modes* and their affordances. We suggest that courses such as Online Learning Design continue to be offered in an online mode even in times where face-to-face or hybrid delivery is possible. In this manner, students on the PGDip can experience what it feels like to be a student in the online mode. This provides them with greater insight into what is needed for their own courses as well as a rich set of ideas on how to teach in the online mode. For the other courses in the PGDip, we suggest a hybrid format with a strong emphasis on face-to-face interactions. This is so that students and lecturers can learn about each other through physically seeing each other and being present in the same classroom, i.e., modelling behaviour as teacher and student, respectively.

Conclusion

In reflecting upon and analysing our learnings in the PGDip, Shulman's (1987) knowledge base categories allowed us to evaluate how the programme has shaped us as professional educators in our disciplines by highlighting the knowledge competencies that remained with us more than a year after we completed the programme.

The programme also professionalised the field of higher education teaching for us, giving us access to role models who exemplified different ways of being a teacher in higher education. Through the multi-disciplinary nature of the programme, we gained access to pedagogical content knowledge across disciplines that were not familiar to us. We also gained curriculum knowledge that contributed to our capacity to design our own curricula and courses.

Throughout the programme we gained a better understanding of our students and their challenges through our personal experiences of being students again. Our knowledge of educational contexts improved by better understanding our course loads as well as understanding decolonialisation in our own contexts. We also started to view the purposes of higher education in a different light. Most importantly, we learned to apply technology (TPACK) in our own teaching and learning activities.

We created relationships and a higher education network with our classmates and lecturers, whom we continue to consult on various topics, issues, and projects in higher education. In doing so, we realised the importance of knowing ourselves, including our personal goals and becoming more comfortable with our changing roles as educators.

Finally, we recommend that two additional constructs should be included in Shulman's (1987) knowledge base categories; namely, *knowledge of the self as teacher* and *multi-disciplinary knowledge* and that *course delivery modes* should be added to the TPACK (Chai et al., 2013) knowledge categories.

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Chapter 6

Evolving higher education teacher identities through the Postgraduate Diploma in Higher Education Programme at the National University of Lesotho

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Introduction

The right to education is one of the principles of state policy in Lesotho (Government of Lesotho, 1993). Education is vital to the full development of the human personality, a sense of dignity and strengthening respect for human rights and fundamental freedoms. Lesotho has undertaken to make education available

to all and has adopted policies that ensure that higher education is made equally accessible through the progressive introduction of free education, based on capacity, and by every appropriate means (Government of Lesotho, 1993). The Lesotho Council on Higher Education (LCHE) was established to regulate the higher education sub-sector. Amongst the LCHE's goals is improving teaching and learning in higher education. One of the LCHE's strategic objectives provides that all teachers in higher education institutions (HEIs) should have acquired a teaching qualification by 2030. The goal of the LCHE in this respect is to improve the quality of teaching and learning in higher education by developing expertise for teaching at this level. For example, policy objective 3.1.1 of the document seeks to build capacity and expertise amongst academic staff members employed by higher education providers to deliver a high-quality teaching and learning experience for their students (LCHE, 2013:9-10).

In response to this context, the National University of Lesotho (NUL) has created a strategic plan, which provides for the objective of teaching enhancement as well as the enhancement and strengthening of teaching and learning. "Teaching enhancement", as used here, refers to any formal pedagogical staff development or training provided to teachers in different ways and formats, such as continuous professional development (CPD) seminars, and workshops. Against this background the Postgraduate Diploma in Higher Education (PGDip) programme (hereafter, the PGDip) at the NUL was created to provide professional validation for HE practitioners, with a view to enhancing their academic practice in their specialised disciplines. A particular focus on the programme was enabling teachers to develop not just sound pedagogies but also professionalise their identity as teachers. However, there has been no formal evaluation of the PGDip yet, that aims to understand how teacher identities have evolved through the lens of the PGDip programme, in the context of the Lesotho higher education landscape. Thus, we have a gap in our knowledge of what higher education teachers think of the work that they are performing, and how they do take on and develop an identity as teachers. This gap needs to be filled, because teacher identity is a vital part of ongoing learning,

reflexive practice, and taking on new skills and experiences (Colbeck, 2008).

This chapter thus aims to examine evolving teacher identities developed through the PGDip programme within the context of the NUL. To this end, the study addresses four broad questions:

1. What kind of experiences in teaching in higher education (HE) did the participants have before engaging in the PGDip programme?
2. How did the participants' competencies as HE practitioners evolve through their engagement with the programme?
3. What characteristic features of teaching in the 21st century do participants think that they need?
4. How do participants characterise themselves as teachers?

The chapter aims to unravel the nuanced dynamics and multifaceted dimensions that contribute to the evolution of teacher identities, with a particular focus on the PGDip at the National University of Lesotho.

By investigating the teaching experiences of participants in HE before enrolling in the PGDip, the study aims to lay the groundwork for understanding the diverse backgrounds and perspectives that shape their journey. Secondly, the exploration of how participants' competencies as HE practitioners evolve throughout their engagement with the programme is intricately tied to the broader aim of unravelling the nuanced dynamics in teacher identity formation. Moving forward, the study endeavours to probe the characteristic features of the 21st century teacher that participants think that they need (and may currently lack). This not only addresses a specific aspect of the professional development that the PGDip offers participants but also aligns with the broader goal of comprehending the multifaceted dimensions influencing teacher identities. The aim reflected in the fourth research question, is to delve into the characteristic features that participants feel mark them out as teacher practitioners in HE.

This study employed a qualitative research approach. It utilised surveys and interviews to comprehensively explore the evolution of higher education teachers' professional identities

through their engagement in the PGDip. This combination allows for a more robust and nuanced understanding of the complex dynamics involved in this transformative process. This not only enhances the transparency of the research process but also positions the study within the broader scholarly discourse on teacher identity research. Drawing on the findings from this study, the chapter highlights the potential implications for educational practice, policy, and future research. It sets the stage for discussions on how insights gained from the investigation may contribute to the enhancement of teacher training programmes, institutional policies, and the overall quality of higher education in Lesotho and beyond. In essence, the study's aspirations intertwine with its research questions, forming a cohesive narrative that strives to uncover the intricate dynamics shaping teacher identities in the specific context of the PGDip at the National University of Lesotho.

The context: The PGDip programme at NUL

The PGDip is one of the higher education programmes that NUL offers, for professional development. HE, as a field of study, requires those who offer it to acquire relevant training so that they can understand the relevant discourses around teaching, learning, assessment and evaluation (Robinson & McMillan, 2006). Emerging imperatives impacting this field require epistemological shifts from positivistic and behaviouristic teacher-centred practices, which traditionally dominated teaching, learning and assessment, to constructivist, interpretivist and other student-centred practices, which allow space for engagement, interaction and conversation with and amongst students (Alam, 2016). The NUL PGDip's generic and applied competencies aim to cultivate participants with a set of beliefs, values, and commitments towards being a particular kind of HE practitioner (distinct from another professionals). HE practitioners must be professionally developed to better understand their role in the evolving HE landscape, locally (i.e., Lesotho) and more broadly (i.e., shifts in research, theory and so on across HE globally). Importantly, as indicated in the NUL PGDHE Student Guide, teachers need to understand and value African identity and cultural heritages,

within a global context, and display a commitment to promoting Indigenous Knowledge Systems (IKS). This means that our participants need to be provided with space to reflect upon critical underlying educational philosophies and on their own practices, within the contexts in which they teach (Sööt & Viskus, 2015). This will help them to become well-grounded and equipped in their roles as assessors, curriculum developers, researchers, and community engaged educators.

Thus, the NUL PGDip is designed to help participants to critically reflect on higher education discourses, philosophical perspectives relating to teaching, learning and assessment, epistemological sources of teaching, as well as policy imperatives in higher education, especially as they pertain to Lesotho's education system. The aim of the programme is that participants emerge from it with several competencies. Firstly, the ability for conceptual thinking, analysis and synthesis with the capacity to systematically analyse bodies of knowledge within a field, discipline or practice for practical application. The programme also empowers participants with skills to translate knowledge into practice, demonstrating an understanding of the complexities of selecting, applying or transferring procedures and techniques to unfamiliar problems in a specialised field, discipline or practice. Secondly, professionalism and ethical values based on critical reflection and the appropriateness of different ethical value systems to specific contexts. Professional identity involves self-knowledge in teaching-related situations, relationships developed within professional practice, feelings of belonging, and learning experiences. Its development is a constant learning process (Baxter, 2012). Once a participant has accepted and internalised expectations for a teaching role as part of their identity, that identity becomes a cognitive framework for interpreting new experiences (Colbeck, 2008:10). Thus, finally, the programme improves the capacity for critical evaluation and self-awareness, applying self-reflective and critical learning strategies to own professional and ongoing learning needs and those of others.

Additionally, critical competencies for a 21st century teacher in higher education must include being able to use appropriate educational technologies to create and deliver learning content

(Real Torres, 2021), and to assist in the assessment of student learning (Mostert & Snowball, 2013). The NUL-PGDip enhances the capacity of teachers to use innovative and appropriate technologies to effectively engage their students. Further, teacher practitioners need to be endowed with skills to interrogate the issues and factors affecting student learning in HE, so that they can better create effective learning environments for their students (Alam, 2016). Thus, PGDip participants are equipped with the knowledge, skills, and attitudes required for a) understanding how students learn; b) managing and monitoring student learning; c) planning/designing, implementing, reflecting on and reviewing the curriculum for a particular programme ; d) preparing appropriate learning materials and media for the students; e) creating and facilitating quality, meaningful and profound learning opportunities for students; f) assessing and monitoring the student's learning progress professionally and ethically, and assuring quality in all these processes (Postgraduate Diploma in Higher Education Student Guide, 2022).

Finally, in line with research that argues for space and time for critical reflection as a vital part of ongoing learning, and professional identity development (Sööt & Viskus, 2015), the PGDip looks at the value of the scholarship of teaching and learning, or SoTL. SoTL provides educators with opportunities to undertake research activities which include collecting, documenting, analysing, organising, critically evaluating and reporting on one's teaching. But importantly, it engages teachers with research on different aspects of teaching, learning and assessment practices, thus enabling them to conduct research on and solve identified problems in a changing higher or further education environment (Felten, 2013).

The PGDip at NUL is thus comprehensive and has been designed to respond to needs and competencies identified in research into effective higher education teaching by researchers working in a range of HE contexts, and to local policy and contextual imperatives and needs within Lesotho. In addition to gaining technical and conceptual teaching knowledge and competence, the programme enables a significant amount of

critical reflection with the aim of helping participants to develop their professional teacher identities.

Before we move on to consider whether and how the PGDip is succeeding, we must discuss how the field, and this chapter, defines professional identity in the higher education context.

Academic and teacher identity development in higher education

Definitions of academic identity in higher education are limited, with a relative paucity of research in this area (Clarke et al., 2014). The existing definitions explore concepts related to professional identity in general rather than academic identity in higher education. For example, Sachs (2001:153) states that professional identity refers to "a set of externally ascribed attributes that are used to differentiate one group from another... It provides a shared set of attributes, values, and so on that enable the differentiation of one group from another". Academic identity can be situated at the crossroads of individual life course experiences and higher education-specific contexts and thus understood as an increasingly plural identity.

Contemporary concepts of identity tend to take the view that it is a cumulative project involving a relationship between individuals and the social structures in which they are located (Delanty, 2008). It is thus viewed as something that is situated and contingent, involving interpretation and negotiation on the part of an individual; identities are thus seen as being multiple, overlapping, and provisional. These views corroborate the fact that there should not be any fixed frames of reference regarding teacher identity, as this does not do justice to the diversity and complexity of contemporary identities in higher education (Baxter, 2012). This is because some fundamental tensions and dynamics are involved in the lives of teachers in higher education. For instance, some academic staff can be involved in business-oriented activities such as consultancies and commissioned research. In contrast, others remain more focused on teaching and a "public service" orientation. Also, most professional staff are becoming more specialised in their expertise while at the same

time becoming involved in cross-boundary areas such as teaching and learning support (Whitchurch, 2009).

Therefore, there are dynamics within the university that create common purpose and tensions between diverse groupings of staff who may, in the past, have worked independently of each other. This phenomenon results in convergence and divergence between academic and professional identities and opens up spaces for new types of identity to emerge with associated activities. The latter includes collaborative work concerning appropriate content and delivery design, especially in this new era of various forms of virtual learning (Voogt et al., 2015).

Changes have impacted higher education systems, institutions, and structures worldwide at different rates and levels. While there are substantial cohorts of academic staff who continue to perform either teaching or research roles, there are those who combine administrative and teaching and research roles. According to Whitchurch (2009), the typology of "bounded," "cross-boundary," "unbounded," and "blended" identities have potential relevance for academic as well as for professional staff. "Bounded" academic staff are strongly influenced by the rules, opportunities, and recognition criteria of the institution where they work, whereas "boundaryless" staff take a more freewheeling approach and are less constrained by such factors. However, as some authors have argued, careers and identities are only sometimes synonymous. The relationship between them is often nuanced, complex, and even contested.

There is significant literature on changing academic identities. According to Clarke et al. (2013), research in higher education has concentrated on several areas, which include the values and collective identities of academic staff, their role in higher education governance, their norms and socialisation processes, and the impact of change in higher education on academic roles. While many authors advocate for the types of research methodology that should be used in such investigations, others are interested to know how academics come to possess the constructs and ideas that inform their professional identity. Discipline-based cultures are a key source of the identity and expertise of academic staff (Ballantyne & Grootenboer, 2012).

They include assumptions about what should be known and how tasks should be performed, standards for effective performance, publication patterns, professional interaction, and social and political status. However, changes in higher education have added further complexity to identity formation within higher education. Against this background, our study explored professional identity as a construct, the different ways in which professional identity should be viewed, the relationship between identity and professional socialisation in higher education, and the role played by networks and their impact on identity formation. The study also considered gender; midlife career academics; the emergence of mixed identities; and the development of new professional boundaries within higher education.

Developing a teacher's identity

Many scholars acknowledged that teacher identity is central to the teaching profession. Holland and Lachicotte (2007) argue that teachers who identify with their teaching role are emotionally attached to this role, and it informs their worldview. Akkerman and Meijer (2011) agree that when one becomes emotionally attached to the teacher role, that role becomes part of who that person is; it becomes an organising element in teachers' lives. Though teacher identity development is sometimes presented as unproblematic, most authors identify it as a struggle, as teachers must often give meaning to different, sometimes conflicting, perspectives (Beijaard et al., 2004). It is generally assumed that university teachers develop a teacher identity after a few years of being a teacher. This teacher identity is built on other identities, including those of a professional, an academic, a researcher, or an intellectual.

Over the last decade, the number of studies concerning teacher identity development in the university context has increased substantially. As Beijaard et al. (2004) articulated, developing a teacher identity is an ongoing process of interpretation and re-interpretation of whom one considers oneself to be and whom one would like to become. There are varied theoretical approaches to teacher identity; some stress the social and cultural nature of identity, whereas others focus on its

discursive and narrative nature. Most contemporary approaches, however, agree that identity is constructed in a social context and that rather than being stable and fixed, it is shifting and dynamic (Rodgers & Scott, 2008). Based on this view, our study adopted the social constructivist approach, which emphasises the social contexts of learning, and that knowledge is mutually built and constructed. In other words, human development is socially situated, and knowledge is constructed through interaction with others. This is in line with Wenger's (2011) theory of communities of practice (CoP), which is detailed in section four.

According to van Lankveld et al. (2016), some factors strengthen, while others constrain the development of teacher identity in the university context. The authors found that the immediate work environment, the broader context of higher education, interaction with students, and staff development activities each have a varying impact on teacher identity. Their findings show that contact with students and staff development programmes usually strengthen teacher identity. In contrast, the broader context of higher education generally has a constraining impact, and the immediate work environment can either strengthen or constrain.

In summary, teacher identity is dynamic and will continue to change throughout one's career. Knowing how much to "give" of yourself in the classroom is part of the challenge of establishing your own identity. Friesen and Besley (2013) explain that teachers who are more likely to have a well-formed sense of personal identity are more likely to be ready to form their professional identity. Teacher identity is individual with no right or wrong way to be, but it is essential for professional development to suit it, and personalised approaches are most effective.

Theoretical or conceptual framework

The study this chapter draws on adopted a sociocultural perspective, drawing on the notion of communities of practice (CoP) advocated by Wenger (2011), where groups of people who share a concern or passion for something interact regularly and learn how to do it better. Different CoPs (e.g., workforce, faith settings, sports teams, etc.) support different aspects of individual

communities of practice. Central to a CoP is the understanding that newcomers learn from more experienced practitioners. The three distinct yet interdependent elements that characterise a CoP are i) a shared domain of interest, ii) relationships that promote collective learning, and iii) interests and interactions generating a shared repertoire of resources and strategies for tackling recurrent problems. Wenger (2011) posits that novices and relative experts within a CoP are shaped by participation and interaction.

The CoP framework provides a lens through which to understand the evolution of HE teacher identity in the PGDip. This is so, because the shared domain of interest, relationships promoting collective learning, and the shared repertoire of resources and strategies, contribute to the shaping of individual identities within a dynamic and interconnected community. The first element of a CoP is the shared domain of interest. In the case of the PGDip, this shared domain is the realm of higher education teaching. HE teachers participating in this community are united by their interest in enhancing their teaching practices, staying current with educational trends and navigating the challenges specific to higher education. The second element involves relationships that promote collective learning. As individuals engage in the CoP, they interact regularly with fellow teachers, sharing experiences, insights, and challenges. Novice teachers, in particular, benefit from the wisdom of experienced practitioners, contributing to the collective knowledge of the community. This interaction fosters a sense of belonging and facilitates the exchange of ideas, ultimately influencing the development of individual teacher identities.

The third element is the development of a shared repertoire of resources and strategies. Through ongoing interactions, CoP members create a repository of knowledge, tools, and approaches that are collectively owned. This shared repertoire becomes a valuable resource for teachers within the PGDHE (Postgraduate Diploma in Higher Education), offering a set of effective strategies, best practices, and solutions to recurring problems in higher education teaching. Wenger (2011) emphasises that individuals and the CoP are shaped by participation. As HE teachers engage in the CoP, their identities evolve through active

involvement in shared practices, discussions, and collaborations. By participating in the CoP, novice teachers not only learn from experienced practitioners but also contribute to the collective identity of the community, thus influencing the ongoing peer learning between experienced and novice teachers participating in the programme.

Methodology

The study explored whether enrolment in the PGDip has brought about any shift in identities for programme participants as higher education teachers, with desired competencies to enable them to carry out institutional mandates while at the same time fulfilling HEI requirements relating to teaching and learning in higher education. The investigation sought to answer the following questions: i) What kind of experiences in teaching in higher education do the participants have before engaging in the PGDHE programme? ii) How did the participants' competencies as higher education practitioners evolve over their engagement with the programme? iii) What characteristic features of teaching in the 21st century do participants think that they need?, and iv) How do participants characterise themselves as teachers?

This section outlines the research design, data collection methods, and analytical tools utilised to explore and interpret the experiences of educators participating in the programme. This research employed a mixed-methods design, incorporating quantitative and qualitative research methods. It utilised an online survey and interviews, to comprehensively explore the evolution of higher education teachers' professional identities through their engagement in the PGDHE programme. The qualitative data obtained from the semi-structured interviews aimed to provide in-depth understanding and complement the quantitative findings. This combination allows for a more robust and nuanced understanding of the complex dynamics involved in this transformative process.

The survey items were divided into three categories, looking at participants' experiences of teaching before enrolling in the programme, their journey into becoming a professional higher education teacher, and their reflections on their learning and

understandings of teaching at the exit level of the programme. Participants were asked to rate their responses on a five-point Likert scale. Out of 22 programme participants, only 13 responses were received on the survey. Thus, we will represent their responses as whole numbers, rather than as percentages.

Semi-structured interviews with three purposefully selected respondents were also carried out to gain an in-depth understanding of views expressed in the survey. The selection was based on accessibility, taking into consideration the issues of time and expenses that would be spent in conducting the interviews. The focus of the interviews was on three questions: a) What impressions did they have regarding the relevance and responsiveness of the programme regarding their expectations from it? b) Are there any changes in the manner in which they have been conducting their teaching practice, resulting from engagement in the PGDip? and c) What factors contributed to the experienced changes?

Findings

The findings of this study are based on the data that was provided by the research participants regarding the evolution of their professional identities as higher education teachers through their enrolment in the PGDip programme. The participants provided information about their professional careers as higher education practitioners (teachers) from three different perspectives over time, before enrolling in the PGDip, as a professional higher education teacher in the making, and at the exit level, as discussed below.

Before enrolling in the programme

The focus here was on finding out the participants' views on their level of expertise in teaching in higher education, their subject matter knowledge, the extent to which they regarded themselves as teachers and what motivated them to enrol in the PGDip at NUL. As suggested by Beijaard et al. (2004), university teachers develop a teacher identity after a few years of being a teacher, and that teacher identity is built on other identities, including those of a professional, an academic, a researcher, or an intellectual.

It was important therefore to determine the relative level of participants' identity development at the point of entry into the programme. Research also indicates that the rate of development of professional identity is dependent on, amongst other factors, the reasons for the participants for enrolling in a professional development programme such as the PGDip (Baxter, 2012).

Regarding their expertise in teaching in higher education, eight of the 13 participants felt their level of expertise ranged from good to excellent, with only two considering themselves as excellent in teaching at this level. Meanwhile four participants regarded their level of expertise as fair, and only one participant thought that they were poor. Of the 13 responses, ten of the participants indicated that they were competent with their subject matter knowledge, two were not sure, and one felt that they were less competent with the content of the course(s) they taught. These results are consistent with the fact that academics are employed based on competence in their subject matter knowledge, and most do not have any teaching qualification, hence they are not necessarily competent in the delivery of content. In some cases, academics are assigned courses which they do not feel confident to teach because of staff shortages that may have arisen, sometimes from someone having left the institution. However, it was surprising that two of the participants believed that they were excellent in their teaching at this level, even before they could start on the programme, so why they enrolled in the programme remains a question. As to whether they had ever considered themselves as teachers, ten responded in the affirmative, and the remaining three participants said that they "hardly" or "never" regarded themselves as teachers. It may not be incorrect to believe that the participant who felt that they were poor in teaching at this level, is the same participant who "never" regarded themself as a teacher.

On the issue of what motivated them to enrol for the programme, most participants indicated that they felt the need to improve their teaching skills, particularly in the 21st century with its knowledge boom, and associated advancements in technology, and in particular, technology required for the enhancement of teaching and learning. There is also the fact that the LCHE is

beginning to require all academics in the higher education field to have obtained a PGDHE by the year 2030. One of the participants pointed out:

> ...the institution where I teach does not offer capacitation in teaching methodology and obvious lack pushed me to enrol in this course.

Another participant wanted to:

> ...improve on my teaching and training.

The following comment expresses a similar reason:

> ...to get the required skills in teaching in order to be proficient in my job.

This final comment highlights the importance of developing expertise as a teacher of a discipline:

> The motive behind this programme is to make sure that I qualify to be a teacher in higher education. To fulfil the need of being an informed teacher in higher education in the 21st century. Being just a practitioner in my field was not sufficient in my practices of teaching and learning. Therefore, I found a need to engage into this field to better and sufficiently fulfil its needs.

One of the interviewees reported that even though he was a teacher by profession, he felt that during his earlier professional training he had only been prepared to teach learners at high school level, as opposed to the young and mature adult students who he is interacting with at higher education level. The challenges that he is confronted with at this level, he asserted, forced him to seize the opportunity that came through the offering of the PGDip, to master knowledge and skills required for effective teaching, especially in this digital age.

Research indicates that teacher identity is directly associated with an academic's work commitment, job satisfaction

and motivation to become better in how they perform (Beijaard et al., 2004). Indeed, the advent of the coronavirus disease 2019 (COVID-19) brought new challenges and shook the education sector with everyone involved having to move from their comfort zones. Administrators, teachers and students all had to adopt new ways of functioning to survive or succeed in their respective territories. As indicated earlier, teachers who are more likely to have a well-formed sense of personal identity are more likely to be ready to form their professional identities (Friesen & Besley, 2013), hence their enrolment in the PGDip.

A professional HE teacher in the making

The focus of investigations in the next part of the study was to determine the extent to which participants understood what was expected of a teacher in higher education, and how they felt that they had acquired knowledge, skills and attitudes required of effective teaching in higher education. The aim was to determine the impact of the PGDip in the construction of professional teacher identities.

All participants reported that the programme was relevant to their lives as higher education teachers. Furthermore, all participants pointed out that the following teacher responsibilities were important aspects of the teacher's effective functioning in higher education:

1. Planning/designing, implementing, reflecting on and reviewing the curriculum for a particular programme and/or module.
2. Managing and monitoring student learning.
3. Preparing appropriate learning materials and media for the students.
4. Creating and facilitating quality, meaningful and deep learning opportunities for students.
5. Assessing and monitoring students' learning progress in a professional and ethical way and assuring quality all these processes.
6. Engaging in the Scholarship of Teaching and Learning to improve on own practice as a reflective practitioner and contribute to the field; and

7. Undertaking community outreach projects to enhance teaching, learning and research. (Note: one participant indicated uncertainty regarding the importance of engagement in community outreach projects).

According to the LCHE (2013) standards, teachers in higher education should indeed effectively carry out these functions, to enhance their efficiency in the sector. It is therefore encouraging that the programme participants regarded these responsibilities as important.

On reflecting on the content of the courses that are taught, all participants in the survey regarded curriculum design, teaching and learning, and e-learning as courses that were important in shaping them into the teachers that they wanted to become. Courses like Context in Higher Education, Scholarship of Teaching and Learning, and Quality Assurance were given an importance rating of 92.3% while Assessment was rated 84.3% in terms of importance. It is surprising that programme participants attached less importance to the course on assessment in constructing their identity as professional teachers, yet the role of assessment in enhancing teaching and learning cannot be overlooked. Contrary to the results from the survey, all participants who were interviewed regarded all courses as highly important in making them the competent and confident teachers they are becoming.

Another interesting aspect was participants' opinions regarding the contribution made by activities that they carried out during their study in shaping their professional identities. Here, all participants suggested that the learning activities that involved making presentations, writing individual assignments, reading responses and group assignments, contributed to shaping their identities as professional teachers in higher education, while their engagement in less formal reflective journalling and participation in discussion forums were favoured at 92.3% and tests at 84.6%.

The results reflected above are consistent with research which indicates that teacher identity is constructed in social contexts of learning and that knowledge is mutually built and constructed (van Lankveld et al., 2017; Rodgers & Scott, 2008). As also suggested by Wenger (2011), the in-service teachers

in this programme played a significant role in transforming the students to become better in what they do, as members of a community of practice. The composition of the group was diverse in terms of experience in teaching at higher education, with some being relatively new in the sector and others having significant experience. There were some members who had high school teaching qualifications, and those who were experts in their disciplines but had no teaching qualification. There were opportunities for information and knowledge sharing, where novices were learning from those with experience. All participants indicated that the support that they received from the programme facilitators and programme coordinator played a significant role in the development of their identities as higher education teachers. As a result, they actively participated and enjoyed their studies through the PGDip.

At the exit level of the programme

The focus of the investigation in this part of the study was on determining the extent to which participants felt that they had attained the programme outcomes. The targeted competencies and associated rates of attainment by participants are presented in Table 6.1, which indicates the various competencies associated with the programme learning outcomes, the number of participants who achieved each competency or attribute.

These results indicate that participants felt that they had attained the competencies expected for effective functioning as a teacher in higher education. Participants had earlier suggested that the competencies were key attributes for development of teachers in higher education. Since the PGDip consists of courses addressing the competencies depicted in the table, the results indicate that the programme participants were satisfied and hence confident in their abilities to perform the functions associated with these competencies. The level of their attainment of these competencies is in line with earlier studies that assert that teacher identity is directly associated with their work commitment, job satisfaction and motivation to become even better in what they do. The responses from section one of the survey also affirmed that the participants were committed to their

role as teachers, and were motivated to improve their knowledge, skills and competencies required for effective teaching in higher education. Professional teachers value their work and always seek to do their best for the benefit of their students. As pointed out earlier, Akkerman and Meijer (2011) note that when one becomes emotionally attached to the teacher role, that role becomes part of who that person is; it becomes an organising element in teachers' lives.

Table 6.1: Targeted competencies and rates of attainment by participants

Competency/attributes	Number of participants who achieved
Design and planning of learning activities;	13
Teaching and supporting student learning;	13
Assessment and giving feedback to students on their learning;	12
Developing effective learning environments, student support and guidance;	13
Using available technologies to enhance student learning;	13
Integration of scholarship, research and professional activities with teaching and in support of student learning	12

In their survey responses, participants asserted that the programme had attained its main objective, because they now feel competent and confident as higher education teachers. In seeking deeper understanding on this issue concerning the changes that participants experienced in carrying out their teaching roles and responsibilities, they pointed out through interviews, that as a result of their enrolment in the PGDip, they confidently make more informed contributions in forums on curriculum design and development and in the moderation of examinations in their departments. They also mentioned that they now feel empowered to create more engaging tasks during class sessions, thus

improving student interaction. This is expressed in the following comments from one of the participants:

> It is only now that I am proud to say I am a higher education practitioner. In fact, my students can testify that my interactions with them have changed for the good. I am so happy to have done this programme.

Similarly, another participant commented:

> At the moment, I am one of those who bring in suggestions in my department on how we can review and adapt our curriculum to meet the needs of the 21st century students,

and yet another pointed out:

> I now give my students tasks that are more engaging and that inspire them to think critically and be innovative.

Participants also mentioned that they emulate the conduct exhibited by the course facilitators in the programme, which affirms the assertion that professional identity is a product of all interactions within the immediate work environment, including emulating behaviours exhibited by the more experienced in the field (van Lankveld et al., 2017). Participants emphasised that the friendly, yet scholarly approach taken with their students, has drawn more participation from students in class activities, with students now being open and willing to share their opinions and ideas on the issues being dealt with in class, as seen in the following comment from one participant:

> Most (if not all) of my lecturers left a positive impact on my professional life, and after seeing how they make their classes lively and student-centred, I have made it a goal to be like them.

Another participant supported had the following to say:

> My students are already seeing the positive change in my interaction with them, and frankly I am really enjoying the new me. I now put my students at the centre of all the activities we do.

On comparing the responses at the exit level with those on the question on participants' levels of expertise before enrolling into the PGDip, participants indicated that there had been a greater shift in their development of competencies and confidence in teaching in higher education. Teacher identity development is indeed a process that works in stages and is influenced by various factors, where others inhibit, others promote its development.

On further interrogation on what factors supported development of their professional teacher identity, one participant had this to say:

> The competencies of the facilitators, the modules in the programmes. Time allocated for each module was thoroughly adhered to

and this was supported by another participant who commented:

> The programme in general was so practical and articulated the attributes of a competent HE teacher in this current era.

Research indicates that factors such as the existing curriculum, expectations from educational authorities and institutional culture influence construction of teacher identities (Akkerman & Meijer, (2011). Some participants asserted that the learning activities such as reflective journalling, and development of portfolios helped a lot as they were able to identify their strengths and limitations in time for proper action. They also suggested that the group interactions of the participants in programme, and diversity of background of the participants in the programme contributed significantly to their professional identity development. The opinions expressed here affirm earlier research findings that led to the assertion that professional identity can be

viewed as a product of socio-cultural interactions and reflective practice on the part of the practitioner (van Lankveld et al., 2017; Rodgers & Scott, 2008). Indeed, running the course as a Community of Practice (Wenger, 2011), benefited them a lot.

The participants in the study were working throughout the programme and this gave them an opportunity to try out some of the skills that they were learning as the PGDip course was happening. As one participant noted regarding their developing practice, their *"ability to engage with the students by adopting appropriate techniques and methods suitable for the modules I facilitate"* contributed to their identity development.

Previous research in this area indicates that teacher professional identity is shaped and negotiated through daily activities conducted in the context of an academic's work environment (Beijaard et al., 2004). One of the participants, however, indicated the following:

> From my early professional training as a teacher, I thought that teaching at this level was going to be easy as I would just apply the knowledge, skills and strategies I had acquired over time, however I found that working amongst colleagues who had no knowledge of teaching pedagogies changed my song, I fell into their ways of doing things, I got swallowed up into believing that I was now a lecturer and have to lecture to my students.

Teachers' historical background and experiences, including their pre-teaching identity, their beliefs and values may also constrain or support development of teacher professional identity. In another excerpt, the above participant realised that the newly adopted practice did not bear the kind of results that he was expecting from his students, and as he puts it, he had to "resort" to his "old ways of teaching". In response to this reflection he noted:

> [I] realised that I needed advice on how to teach better at this level. When the opportunity of enrolling in a

> programme such as this one came, I decided not to wait any longer, but to register immediately.

Regarding what participants regarded themselves as needing to be competent and confident HE teachers of the 21st century, the interviewees pointed out a need to consider inclusion of teaching practice engagement in the form of some attachment to higher education institutions, to provide those programme participants who were not directly involved in teaching to have an opportunity to assess their progress regarding the targeted skills development. They also noted a need for help with managing adult learners. Participants felt that they needed empowerment on how to handle adult or mature learners' needs. These concerns are genuine but may be solved through avenues other than expanding the content of the current programme.

These suggestions highlight the reflective engagement of practitioners as professionals who align themselves with lifelong learning as a way of quenching their thirst for more knowledge and development of further competencies, which in turn leads to further constructions of professional identities.

Conclusion

It is evident that development of teacher professional identities is an ongoing process. It involves transformation of character, beliefs and values for influencing practice in the workplace. Several factors may be attributed to the construction of an individual teacher's professional identity. These include factors arising from the individual teacher's personal aspirations and desires to do well in their practice, as well as those that may arise from their immediate work environment including influences from colleagues and support from people regarded as role models. The expectations from educational or institutional authorities, such as the LCHE in this case, may put pressure on academics to realise their limitations in relation to set standards, and compel practitioners to take positive measures to align themselves with the demands of their job. Enrolment and engagement in professional development initiatives such as the PGDip contributed significantly to development of professional

identities of participants. Evidence has shown that the nature of the content, quality of learning and teaching activities, the conduct exhibited by facilitators in the programme have positively influenced the construction of participants' identities as competent and confident teachers in higher education. The fact that the participants were studying while still engaged in their normal routine duties as academics, gave them the opportunity to immediately put into practise whatever excited and engaged them in their training. Through their reflective practice they were able to develop the targeted competencies while still under support and guidance of their facilitators. It therefore takes one's commitment to their job, recognition of one's limitations, willingness to improve and the enabling environment that the needed transformation on the part of a teacher can be realised. A practitioner's intrinsic motivation keeps them focused and maintains their perseverance until they achieve that which they desire, becoming the kind of practitioner that they want to be.

The study has identified a variety of motivations for enrolling in the PGDip, with a predominant focus on improving teaching skills and adapting to the demands of the 21st century higher education landscape. It highlights a critical need for professional development opportunities in teaching methodologies, especially in institutions where such training is lacking. While the study presents valuable insights into the evolution of higher education teachers' identities through the PGDip programme at NUL, it also prompts considerations for programme improvement and expansion. The findings suggest a positive impact but the small sample size and certain identified areas for enhancement should be addressed in future iterations of the programme. Continuous evaluation and responsiveness to the evolving needs of teachers will be crucial for the sustained success of professional development initiatives like the PGDip.

The findings emphasise the perceived relevance of specific courses, such as Curriculum Design, Teaching and Learning, and E-Learning. However, the lower importance attached to the Assessment course raises questions. This may signal a potential gap in understanding the integral role of assessment in effective teaching. The programme should ensure a more balanced

emphasis on all aspects of pedagogy. The high reported rates of competency attainment in various aspects of teaching and learning indicate the programme's effectiveness. This is a positive outcome, aligning with the broader goals of enhancing the capabilities of teachers in higher education. It would be valuable to explore how these competencies translate into actual teaching practices and student outcomes in future evaluations.

The acknowledgment of the significant role played by programme facilitators and coordinators in shaping participants' identities emphasises the importance of supportive learning environments. It suggests that a positive and encouraging educational climate enhances the effectiveness of professional development programmes. Participants' suggestions for improvements, such as including teaching practice engagement and addressing the management of adult or mature learners, indicate a recognition of the need for ongoing professional development. This aligns with the concept of lifelong learning and emphasises the importance of adaptability in the ever-evolving field of higher education. The participants' suggestion that they should be attached to higher education institutions for teaching practice is noteworthy. This aligns with the belief that practical experiences play a crucial role in identity development. Incorporating such experiences into the programme could provide a more holistic learning experience.

In conclusion, this investigation into participants' teaching experiences before joining the PGDip has served as a foundational step in evaluating and developing the programme at NUL, illuminating the diverse backgrounds and perspectives that mould teachers' ongoing educational journey. This groundwork has been essential in comprehending the intricate dynamics influencing teacher identities as they engage in the programme. As our study delved into how participants' competencies as higher education practitioners evolved over the course of the programme, a clear connection has emerged between the research questions and our broader aim of understanding the complexities in teacher identity formation. As we turn our attention to the implications of the study for the PGDip, it is evident that our findings offer valuable insights and raise considerations for programme

improvement and expansion. The identified motivations for enrolling in the PGDip highlight a critical need for ongoing professional development in teaching methodologies, particularly in institutions where such training is lacking.

However, the study also recognises the importance of addressing certain areas for enhancement, such as the small sample size used in the study, and the need for a more balanced emphasis on all aspects of pedagogy within the programme. Continuous evaluation and responsiveness to the evolving needs of higher education teachers emerge as crucial factors for the sustained success of professional development initiatives like the PGDip. The participants' suggestions for improvements, particularly the inclusion of teaching practice engagement, align with the concept of lifelong learning and emphasise the importance of adaptability in the ever-evolving field of higher education. In summary, our study not only adds depth to the understanding of teacher identity evolution but also offers practical insights and recommendations for refining and expanding professional development programmes in higher education.

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Chapter 7

Shifting gazes through a PGDip programme: A case study of transformation

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Introduction

In the past couple of decades, there has been a steady increase in the development and implementation, in South Africa and abroad, of formal programmes aimed at enhancing academics as university teachers. The Postgraduate Diploma in Higher Education (PGDipE HE) (hereafter, PGDip) is one such programme. The increase in student numbers coupled with the rising culture of performativity, as well as the increased drive for research output, have placed ever greater demands on academics and have precipitated a true "millennial storm" (Light & Cox, 2000). More than ever before, academics are becoming aware of their role as teachers of their discipline rather than pure discipline experts. This awareness increased during the global coronavirus disease 2019 (COVID-19) pandemic. University lecturers had to respond and adjust, triage-like, to a new reality of online teaching and assessment (Schultz & DeMers, 2020).

Over the years, there has been a growing body of research around how PGDip programmes have facilitated the development of academic practice (Leibowitz et al., 2016) provide academics with insights and skills to better design and develop curricula

(Quinn & Vorster, 2004) and foster a deeper sense of reflection (Dison, 2016). Although there have been attempts, within the South African context, to research the way that academic identity can be shaped through engagement in structured educational programmes (Benvenuti et al., 2022), the emphasis has mainly been on programmes aimed at academic development professionals (Quinn & Vorster, 2014; Skead, 2018). It is notable that there has been a relative absence, especially within the South African context, of research exploring the transformative potential of PGDip programmes through the personal experience of participating academics. Acknowledging the value of the individual's capacity for knowledge creation through "narrativized accounts [telling] the story of one's learning", the "living 'I'" in educational research (McNiff, 2008:325), can provide valuable insights into the transformative value of the PGDip.

In this chapter, I seek to address the transformative potential of PGDip programmes. The research presented in this chapter is autoethnographic in nature and grew out of the research of my transformative journey as an engineering academic engaged in the PGDip, offered at the University of the Witwatersrand between 2017 and 2018 (West, 2021). The value of the research presented in this chapter, is in the use of Legitimation Code Theory (LCT), and especially the dimension of Semantics to explore the development of a disciplinary expert's gaze towards education. The concept of gazes is examined as an integral aspect of LCT. The dimension of Semantics is explored as an analytical tool making explicit shifts in my written discourse, as a proxy for detecting shifts in my gaze from a disciplinary expert to that of a teacher of the discipline.

Disciplinary experts or teachers of the discipline?

In every practice there is always knowledge to be learnt and someone performing the knowing. This is the main premise of the Legitimation Code Theory. Practices differ in the degree to which knowledge, principles and procedures on the one hand, and attributes and dispositions of knowers within the practice on the other, are emphasised. Practices legitimate organising

principles that are not always empirically observable. These principles are conceptualised as codes. Codes allow one to "move beyond empirical appearances to explore the organising principles, dispositions, practices and contexts" (Maton, 2016:10). Importantly, they allow for distinctions or relations to be drawn between practices. Within practices, one can identify *epistemic relations* (ER) between "knowledge and its proclaimed object" and *social relations* (SR) between "knowledge and its subject, author or actor" (Maton, 2010:43-44). These relations address the question of *what* counts as legitimate knowledge within a practice and *who* can claim to be a legitimate knower or actor within said practice (Maton, 2014b:29).

It follows that in navigating any knowledge practice, one needs to become familiar with what counts as legitimate within it. To be able to recognise the specific organising principles and to successfully realise these in various ways: in the way in which one speaks, writes, thinks, acts. In other words, one starts acquiring a *gaze*, a way of orientating oneself towards the practice. The acquisition of a particular gaze depends as much on the attributes of the subject performing the knowing as it does on the type of interactions which the person has with significant others. These "others" are not limited to physical people. They can be bodies of knowledge and authors of seminal papers. The relative importance of the knower attributes and interactions with significant others yields a continuum of different gazes, ranging from a trained gaze where knower attributes and interactions are less valued through to a born gaze where knower attributes as well as relations with others are indispensable to becoming a legitimate participant in the practice. In Figure 7.1 one can see the different gazes placed along a continuum in relation to the strength of social relations of a particular practice.

Figure 7.1: Continuum of knower gazes as a function of social relations of a practice, adapted from Maton (2014b:95)

Engineers as disciplinary experts

Within the natural sciences, knowledge is created in a hierarchical way by systematically building onto and extending previous knowledge. Specific attributes of the person matter less. What matters more, is engagement with the mutually agreed-upon principles and procedures that support the practice. The field therefore is open to anyone as long as they interact directly with the practice and come to understand how its specific knowledge and procedures are structured.

Engineering is widely known as an applied natural science placing great emphasis on disciplinary knowledge drawn from the natural sciences. Engineering as a profession exists within society and responds to society's needs (Hanrahan, 2014). Engineering can be thought of as applied social science (Vesilind, 2001). Engineers have also been described as "artist/scientists" (Bonasso, 2001:22). The development of specialist engineering knowledge, however, emerges traditionally through engaging systematically with specialist knowledge drawn primarily from the natural sciences.

Design thinking is an integral part of being an engineer. It is an iterative process of enquiry supported by an ability to tolerate and manage ambiguity (Dym et al., 2005). Decision-making, big picture thinking and navigating the social aspects of being part of a team (2005:104) are central to design thinking. In order to develop a gaze towards engineering, the engagement with a hierarchically structured body of knowledge is of central importance, The personal attributes of the engineer (as the knower) as well as interactions with significant others are less important. Becoming an engineer is associated with the development of a *trained gaze* (Maton, 2014b:95) towards engineering.

Teachers of a discipline - the world of education

At first glance, education and engineering seem to share a set of common traits. There is a strong element of reliance on theoretical knowledge. This knowledge is also applied to varied and (sometimes) quite complex classroom contexts. Teaching involves a degree of problem-solving. The knowledge structure characteristic of education is, however, quite different from

engineering. It is not about simply being able to articulate theories and apply them in practice. Being able to draw distinctions and relationships *between* them is what matters more. There is a marked emphasis on learning through interactions with significant others. These "others" can be identified as the authors of seminal texts on education as well as other participants (teachers and students). One can argue that education is characterised predominantly by what is referred to as a *cultivated* gaze (Maton, 2014b:95).

Academics in most cases teach in the manner that they were taught themselves with command of their disciplinary knowledge as their only guide (Machingambi, 2020). Mastery of teaching has traditionally been developed indirectly, often through trial and error, through experience (Kahn, 2017). These thoughts echo the sentiments of McIntyre in his seminal debate with Dunne (McIntyre & Dunne, 2002) on education and teaching. McIntyre's position in this debate is that teaching is not a practice in its own right, being nothing more than a "set of skills and habits put to the service of a variety of practices" (2002:5). Teaching, in McIntyre's view, is simply a conduit that transmits the practice in question (Figure 7.2).

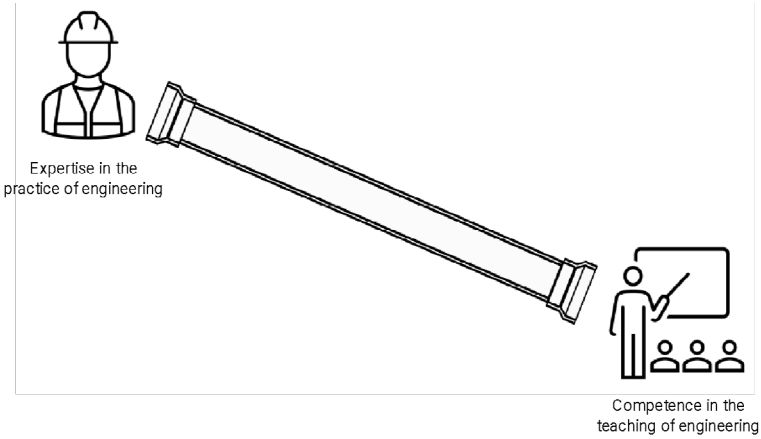

Figure 7.2: Teaching as a "conduit that transmits practice"

The implication of McIntyre's position is that teaching is viewed as devoid of any particular organising principles. Anyone

can teach, provided that they have sufficient command of their particular discipline. In contrast to this position, Dunne maintains, that teaching is and must be, considered a practice in its own right, with its own organising principles, its own history (2002:8). This is also a position famously held by Shulman (1987), who argued that it was necessary for teachers to have what he termed pedagogical content knowledge (PCK). Therefore, being a successful teacher in a specific discipline involves four main elements. First, as also asserted by McIntyre, is a strong understanding of the disciplinary content knowledge to be taught, as well as the ordering principles particular to the discipline. Second, a good teacher needs an understanding of the theoretical perspectives that support teaching: knowledge of learning theories and aspects of pedagogy, assessment and curriculum. Third, from a practical perspective, there is also the importance of engaging with the context-dependent aspects of classroom and student management. Finally, Schulman emphasises the importance of developing what he refers to as the ill-defined concept of a "wisdom of the practice". The importance of a significance of developing the personal attributes of a stance, a *gaze* towards education.

Within the context of my reflections, an important question emerges. What happens when engineering academics find themselves entering a different disciplinary context as in the case of attending a professional educational programme such as the PGDip in Higher Education? Engineering academics can find the transition particularly difficult. Education research differs in many ways from that of engineering. For one, the different research paradigms are at odds with the shared understanding of a common positivist approach to research. Furthermore, engineering academics have not had the level of socialisation into the disciplinary discourse that a humanities student would be exposed to (Gardner & Willey, 2018). They perceive engagement and research in teaching and learning as a weaker, less-important field of research compared to "real" engineering work (Blaine et al., 2019; Case, 2015).

LCT dimension of semantics – detecting a gaze in written discourse

Becoming a certain kind of person, a knower in a specific practice, is linked to acquiring a particular way of thinking, of organising knowledge. Acquiring a particular gaze enables one to not only recognise the legitimate discourse associated with the discipline. It also allows one to realise it within legitimate *academic* text. Academic texts exhibit a number of characteristics making up what is referred to as text-based reality (Wertsch, 1991). These are described as "problem-spaces…created and maintained through textual or semiotic means alone" (Wertsch, 1991:74). At a first level, academic texts are *depersonalised*. One writes without a *particular* reader in mind. Language becomes more specialised as the level of abstraction increases. Secondly, texts are also *bounded.* They exist within a particular "symbolically bounded universe" (Slonimsky & Shalem, 2010:82) within which one agrees to operate. Finally, text-based realities are *systematised*. They have a particular structure and logic, organising principles, that students need to be able to recognise within such texts, and realise or reproduce them within assessment tasks.

The LCT dimension of Semantics (Maton, 2014b:18–19) provides a useful tool for making explicit the relationship between context and content, revealing the way that meaning is construed within texts through its distinction between semantic density, the "degree of condensation of meaning within practices" and semantic gravity, the "degree to which meaning relates to its context" (Maton, 2014a:36). Semantic gravity and semantic density both operate along continua. The stronger the semantic density (SD+), the more meanings are condensed within a particular practice. Weaker semantic density (SD–) refers to a lower degree of condensation of meaning. If meanings are more dependent on a particular context or abstracted in nature, then the semantic gravity will be stronger (SG+). A weaker semantic gravity (SG–) would imply that meanings are less strongly tied to context. The varying relative strengths of semantic gravity and semantic density give rise to four semantic codes within the sematic plane: rhizomatic, prosaic, rarefied and worldly (Figure 7.3). The way that context and complexity of meaning are used

within legitimate text can reveal the way that students understand and navigate the complex problem-spaces of text-based realities. In tracking changes in SD and SG (and ultimately shifts in the semantic codes) over time, one can also observe shifts in gaze towards the practice, ultimately revealing shifts in discourse.

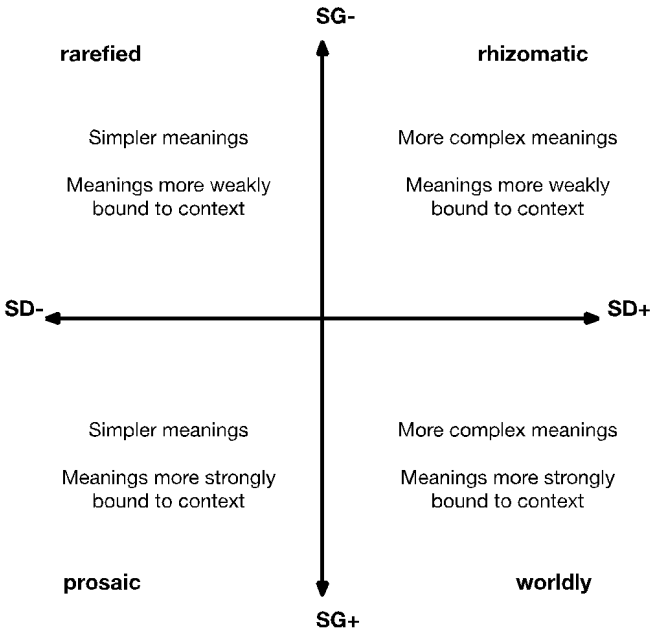

Figure 7.3: The semantic plane: relationship between meaning and context within a socio-cultural practice revealing the four semantic codes (Maton, 2016:1–23).

Within education, richness of meaning and complexity is achieved through bringing into conversation different concepts, theories, phenomena. Very often, students entering a new discipline lack the gaze necessary to recognise (and realise) the organising principles particular to the discipline. This absence of the required gaze can become evident in written discourse in a number of ways (Slonimsky & Shalem, 2010):

- Reliance on personal experience rather than drawing from theoretical principles resulting in simple descriptions of a particular context.

- Use of broad platitudes as opposed to drawing from contextually relevant and theoretically sound positions.
- Use of personal experience as evidence to support a theoretical position. This case is often shown up as an oscillation, between rhizomatic and prosaic codes on the semantic plane.
- Uncritical use or simple listing of theoretical perspectives linked to a lack of understanding of the organising principles of the discipline.

An engineer at crossroads … an autoethnographic account

The main interest explored in this chapter is shifts in gaze over time which form the object of analysis. The unit of analysis is an individual academic engaging within a formal education programme. In this case, a Postgraduate Diploma in Higher Education, offered at the University of the Witwatersrand in Johannesburg, South Africa. The selection of myself as the case to be studied (and as the unit of analysis) was guided by the following points:

- Proximity to the events allowing for deep and meaningful reflection.
- Being able to track changes in my academic identity over time through the PGDip as a whole as well as through its individual courses.
- My disciplinary background and socialisation as an engineer which took place before my engagement with the PGDipHE has the potential to emphasise shifts in academic identity.
- Ease of data access: analysis of reflections, documents and written assessment tasks.

In this autoethnographic case study, a total of nine reading responses (three from each core course) was selected for analysis through a process of purposive sampling. Of the nine responses analysed, three were selected for discussion within this chapter.

In autoethnography, the focus is on reflexively exploring and sharing one's own story rather than being a silent and neutral observer interpreting behaviours of a community (Laher

et al., 2019:266-267). The emphasis is on highlighting one's own voice through meaningful reflection. One of the key aspects of autoethnography is an emphasis on accounts of "epiphanies" as "remembered moments perceived to have significantly impacted the trajectory of a person's life". These incidents are significant and worthy of analysis as they uncover ways in which people negotiate difficult or troubling situations (Ellis et al., 2011:275). One is reminded of the concept of "critical incidents" (Bassot, 2016:193), bring us face-to-face with our often firmly held assumptions and allowing for a process of reflection to take place.

The Wits PGDip

The Postgraduate Diploma, first offered in 2016 by the University of the Witwatersrand, Johannesburg, is a two-year, part-time programme. It is made up of three core modules: Learning and Teaching, Assessment, and Curriculum Design and Development. A fourth, research-based module, New Directions completes the programme. The main aim of the programme is to "take a scholarly and professional approach to teaching and learning in higher education" (WSoE, 2017b:1). The courses are designed in such a way as to provide a degree of reinforced knowledge-building.

Learning and Teaching in Higher Education emphasises the importance of *reflection* in- and on-practice. Tasks and assessments are aimed at cultivating and fostering scholarly reflection and critique of one's teaching practice informed by core theories of and approaches to learning.

Assessment in Higher Education extends the engagement to theories of assessment with a core emphasis on not only reflection but also *application* of these theories within the context of teaching. The course is built around a "puzzle", a particular "assessment issue or challenge that an individual lecturer has faced/is facing" (WSoE, 2017a). Students are encouraged to treat this puzzle as a mini research project in which theories of learning and assessment are applied.

In Curriculum Design and Development in Higher Education there is a move towards a deeper and more *analytical engagement with key curriculum theories* and debates. The curriculum module

builds on previous work and further emphasises "theoretical understanding of the different approaches to the study of curriculum and curriculum development in higher education" enabling academics to "interpret, design, implement and evaluate curricula. Lecturers/academics should also be able to critically interrogate how curriculum policies are shaped by societal, institutional, personal and interpersonal contexts and processes and in turn shape these contexts" (WSoE, 2018a:1)

The New Directions research course is designed to enable students to draw from the three preceding courses and take their first steps as researchers within the field of higher education. In particular, the course is aimed to guide participants to "identify and research an emerging issue of significance in the broad community or in [their] teaching, assessment or curriculum practice" (WSoE 2018b:1). By the end of this course, participants are expected to prepare a draft paper.

An important characteristic of all courses is the practice of writing "reading responses". Reading responses are short essays, not more than about a page long. They are written in *response* to a chosen prescribed journal article or book chapter. The aim is to help students to engage constructively with the ideas presented in the readings and provide a platform "for students to make their thinking in process ... visible to themselves ... [and] ... a way of *recording* students' responses, interests, difficulties, - a way of 'forming meaning and attaining understanding'..." (WSoE, 2017b). Responses, together with other assessment tasks, final summative assessments (in the form of take-home essays), are all designed to signal and foster the importance of interaction between texts and peers. Through engagement with pedagogical practices, assessment tasks, prescribed readings and interactions with peers, participating academics are exposed to and gradually develop the discourses characteristic of education.

Findings and discussion

A key aspect of data analysis using Legitimation Code Theory is the development of a relevant translation device. Translation devices provide an "external language of description between theory and data" (Maton & Chen, 2016:28). Within this study, the

unit of analysis is shifts in knower gaze which is linked to the way that meaning is created within legitimate texts. The translation device for semantic gravity was designed by considering three main shifts in context: highly contextual accounts of everyday experience (SG++), a move towards context-independent engagement, evidenced by a shift in context (SG+), and the engagement with presentation or discussion of general rules, principles or theories (SG–). This translation device can be seen in Table 7.2.

Designing a translation device for semantic density presented a few difficulties as I had to carefully define what constitutes complexity and condensation of meaning. As the discussion revolves around the development of a gaze towards education, complexity can be defined as a progressive linking of concepts, readings and contexts. These variations in semantic density are particularly important within the context of the study. The relevant translation device for semantic density (SD) used can be seen in Table 7.3.

Table 7.2: Translation device for sematic gravity (SG)

	Code	Indicator	Example from text
Semantic Gravity	SG–	Entry refers to a general principle or theory	"...alignment of objectives, teaching and learning activities and assessment is extremely important for the creation of a conducive environment for deep learning to occur. It gives the students the necessary clarity of direction and freedom to focus on the aspects of learning without having to constantly watch their backs."
	SG+	Entry shows a shift to another context	"The main theme in the article is the importance of alignment of all these three components: objectives, teaching and assessment."
	SG++	Entry refers to author's own personal context and experience	"When I started teaching, I was asked to deliver an introductory course in electrical engineering to second year engineers of other disciplines. It was a service course that had a very bad reputation. Very large classes which translated to lots of marking and disinterested students which translated to challenging teaching"

Table 7.3: Translation device for sematic density (SD)

	Code	Indicator	Example from text
Semantic Density	SD++	Entry characterised by the use of several different concepts, readings, contexts arriving at new interpretations and richer meanings	"In the postgraduate environment, however, I do feel that this perspective has merit. Postgraduate studies are very often characterised by power struggles between supervisors and students (Bartlett & Mercer, 2000). It is often a battle between the person who holds the key to knowledge and the person seeking knowledge. The pressure to publish, as well as unethical co-authoring practices (Clowes & Shefer, 2013) most definitely lead to students feeling cut off from the learning experience."
	SD+	Entry characterised by the linking of several different concepts, contexts, readings	"The successful alignment of objectives, teaching and assessment can result, under the correct conditions, in the creation of a very conducive environment for the student to engage in deep learning."
	SD–	Entry focuses on the simple interpretation of a situation, context, concept or reading	"Thinking back to my undergraduate years I realise that in many courses, the objectives, the teaching activities and often the assessment was not aligned".
	SD--	Entry focuses on description of a particular context (classroom situation, reading or concept)	"It reminds me of the difficulties, successes and failures that I had first as a student and later on as a young academic. There were times when, as a student, I felt that by stockpiling notes and increasing my sources of information I would be able to gain a deeper understanding of the topic at hand."

Into the unknown… evidence of a blank gaze

The first response I analysed was also the very first one that I wrote. It was written as part of the first course of the PGDip, Learning and Teaching in Higher Education. I chose to start my analysis with this response as It signified my first introduction to academic writing within the field of education. The task was a response to Biggs' 1999 article *What the student does: Teaching for enhanced learning.* The process of writing this response but most importantly the comments that I received from the facilitators acted as a critical incident. The incident occurred upon receiving my results and feedback for this reading response. I was convinced that I had done well. It was not the lower-than-expected mark that unsettled me. It was the comments that I received from the course facilitator:

> Your strength is in applying theory in a specific way, to your teaching and learning situation. You report good results in your teaching, and implicitly, in student's learning. I want to challenge you to look beyond your specific, existing context, to a wider, more complex, less context-bound world - that of theory. Can you think of limitations or weaknesses in the theory in relation to different learning and teaching situations?

On reading this item of feedback, my initial reaction was a combination of disbelief and something bordering on indignation: "well *of course* I am good at applying theory to a specific context! After all, *I am an engineer*!" My assumption was that I could apply the same principles and procedures to education as I would to engineering. I appeared to be blind to, or unaware of, the specific organising principles of education. Coding for semantic gravity and semantic density yielded the following plot on the semantic plane (Figure 7.4). The numbers in each circle indicate the progression between codes throughout the paper, in the order in which they appear. The arrows indicate the general movement on the semantic plane.

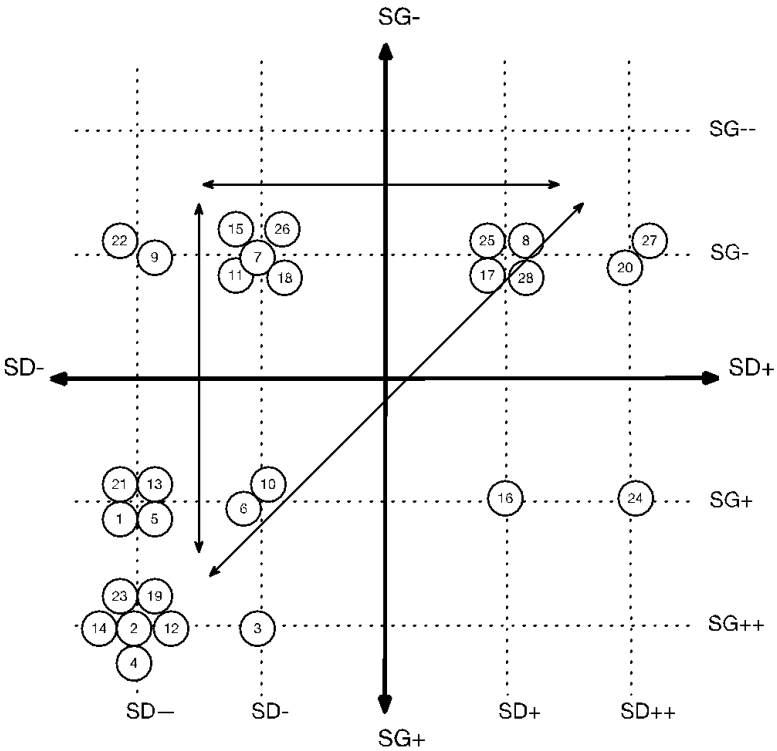

Figure 7.4: First reading response (Biggs, 1999) - dominated by prosaic, rarefied and rhizomatic codes

As seen from Figure 7.4, the response is characterised by a dominance shifts between the prosaic, rarefied and rhizomatic codes. Discussions typically star firmly in the prosaic drawn from personal experience and written in simple everyday language. This example is then compared to an existing or related theory (a movement to the rhizomatic code) finally leading to a generalisation or platitude (rarefied code).

Although my voice is present within the discussion, what is missing is an active interrogation and critical response to the position presented in the reading. The semantic analysis of this response brings to the fore an important point. The dominance of a prosaic - rhizomatic - rarefied code oscillation shows a lack of understanding of the organising principles, of how to navigate

text-based realities within the field of education (Slonimsky & Shalem, 2010). In this context, these patterns are evidence of a lack of recognition of the particular way that knowledge is structured in education: by bringing into conversation many and often opposing arguments. Coming from an engineering background I entered the PGDipHE with a *blank gaze* towards education.

The analysis of the second and third reading responses written, showed a shift away from discussion characterised by the offering of personal experiences and anecdotes to be compared to theory and vice-versa. From the analysis of the response to Chapter 4, *The framing of learning: Approaches to learning*, from Moon's *A handbook of reflective and experiential learning* (2004). It is interesting to continue to examine the feedback received:

> This is a well-researched essay rather than a reading response, but it certainly shows sound understanding of key points in several texts which you have drawn in. Your examples are also pertinent. Well done; but do try to shorten your response and highlight areas of agreement and disagreement with the authors.

The feedback appears to confirm elements of the semantic analysis: the response was described as "well-researched" and showing a "sound understanding of key points *in several texts* which [I] have drawn in", as well as the use of pertinent examples. Importantly, the feedback also brings to the fore something quite significant: a lack of awareness of the horizontal nature of the discipline of education. Even though several texts were brought into conversation within the response, it is the knowledge from others contained within these texts that is being legitimated, downplaying my role as a legitimate knower within the field. My voice is not that evident within the response. My gaze, however, towards education as a knowledge practice is evolving.

A first breakthrough: Finding my voice

The next turning point occurred within the second module (Assessment in Higher Education) and in my response to a paper by Leong, "On varying the difficulty of test items" (2006). In the

paper, the author discusses what determines the difficulty of a test question and offers an "item difficulty framework" (2006:1). The semantic analysis of my response yielded the following plot on the semantic plane (Figure 7.5).

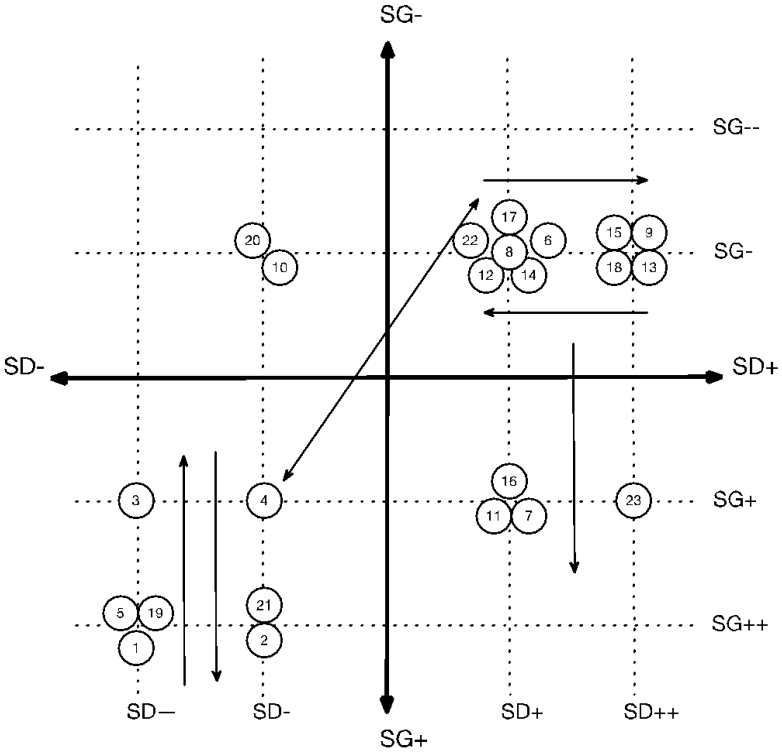

Figure 7.5: Reading Response five (Leong, 2006) - Emergence of voice

A careful examination of Figure 7.5 and comparing it to Figure 7.4 (first response) yields two interesting, related and significant points:

- There are fewer movements *into* the prosaic code. There are quite a few movements within the prosaic code, but these happen early on in the response.
- Having established context early on in the response, there is a shift to the rhizomatic code with modulations of semantic density.

- There are proportionally more movements between the rhizomatic and worldly codes, signifying an attempt at applying theory to context. The response ends with a move to the worldly code.

What is not immediately evident from the sematic analysis is that this was the very first time that I expressed my strong disagreement with the author [emphasis added]:

> When thinking of assessment, I have become acutely aware of the importance of alignment in a particular course. In order for assessment tasks to be meaningful, these tasks and by extension their component questions need to reflect the teaching objectives as well as the way in which these objectives have been taught (Biggs, 1999). At the same time, I have realised the importance of assessment as an extension of teaching and learning and as a means of promoting student-self regulation (Carless, 2015; Nicol & MacFarlane-Dick, 2006) through meaningful formative and summative assessment. Taking these concepts into account while reading Leong's article, I realised that rather than focusing on whether a question is easy or difficult, one should actually be talking of whether a particular question is appropriate or not

This passage shows an effective use of multiple sources to build a foundation from which to challenge Leong's position. Within the quoted passage, one can see evidence of recognition of myself as a legitimate knower. This shift also highlights the importance within disciplines such as education of interacting with significant others who share a particular gaze. It is through these meaningful interactions that the acquirer is allowed "metaphorically to look at (recognise) and regard and evaluate (realise) the phenomenal of legitimate concern" (Bernstein, 2000:173).

A final shift: moving beyond the confines of the papers

From the analysis of the reading responses thus far, I have been able to track a gradual change in my written discourse: a shift

away from dwelling in the prosaic (every-day highly contextual examples) and rarefied codes (general statements, platitudes) and towards building complexity of meaning through bringing many different sources in conversation with each other, bringing to the fore points of agreement and disagreement.

In the last three responses analysed, a further shift was noted: a tendency of engaging at a more theoretical level. What is evident in these last three responses analysed was an apparent freedom to explore and "play" with ideas, something that was not observable in the initial responses. As the analysis presented in this chapter started with the very first response that I wrote, it is fitting to conclude with the last response that I wrote. Seen in Figure 7.6 is the semantic plot of my response to Luckett's article *Conceptualising an epistemically diverse curriculum for academic developers* (2001).

The main characteristic of this response is my willingness to engage with other papers. I was able to draw links between them and attempt to look *beyond* these papers linking them to new theoretical concepts. I proposed the idea of curriculum as a journey. This idea is discussed, explored further and linked not only to the idea of moving through an *epistemically diverse* curriculum but also imagining how this diversity could be enacted through a waving between the rhizomatic, prosaic, rarefied and worldly codes on the semantic plane. By comparing the plot in Figure 7.6 to the previous three plots presented, a clearer shift towards legitimating complex and interconnected meanings (rhizomatic code) as applied to more contextual situations (worldly code) is evident.

As an aside, at the time of the writing of this last reading response that I was introduced to the LCT dimension of Semantics. First through a prescribed paper and secondly and fortuitously through attending a talk by Karl Maton, the creator of LCT, held at the Wits School of Education. I was taken by the explanatory power of LCT as a language of description coupled with a clear and succinct graphical representation. LCT as a framework addressed my sensibilities as an engineer.

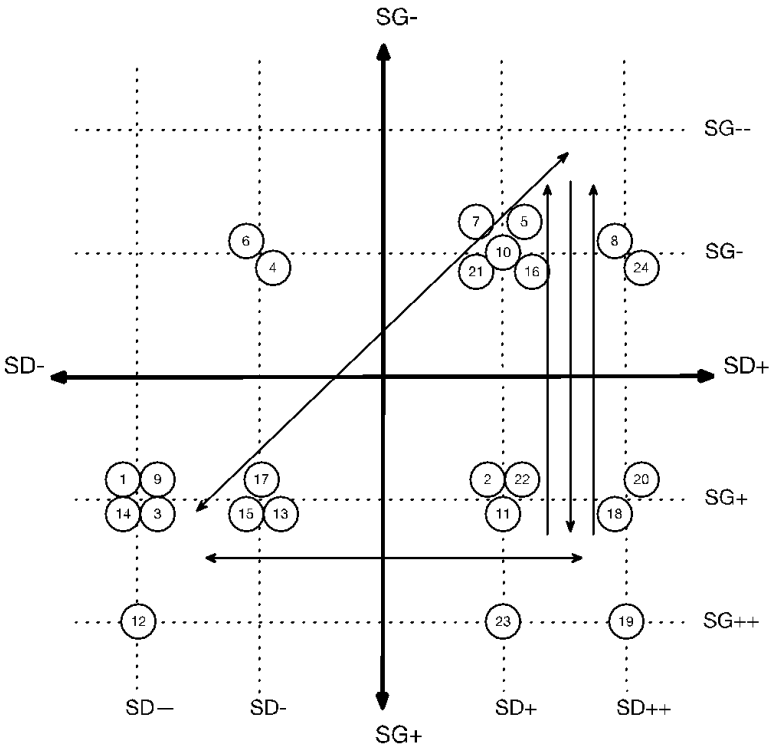

Figure 7.6: Reading Response nine (Luckett, 2001) - Move towards theorising and exploring

Where does this analysis lead to thus far? The discussion started with a description of a critical incident initiated by the unexpected feedback comments on the first response that was written. Through the use of LCT's semantic codes, I have shown that in the course of the PGDip, a change in written discourse, signalling a shift in gaze, took place. The analysis of my reading responses showed how over time there is a noticeable shift away from the everyday and towards the theoretical and applied in my written discourse. This gravitation to predominately rhizomatic and worldly codes is typical of education. As Shulman (1987) points out, one engages in the application of theoretical (disciplinary and pedagogical knowledge) in complex (social) contexts.

In essence, I entered the PGDip programme with a blank gaze towards education. Like McIntyre, I did not see teaching as

a practice in its own right having its own history and organising principles. I had been teaching for a good number of years with no formal training. The affordance of the PGDip is that on the one hand, engaging with the knowledge base of education offers a language of description with which to discuss aspects of teaching and learning, assessment and curriculum. On the other hand, the interactions with significant others embodied by theorists, facilitators and peers makes explicit the way that knowledge is construed within education. The practice of writing reading responses, coupled with meaningful feedback, further allows one to put in practice the ways knowledge is structured and meanings are created. I therefore started seeing education and teaching in a different light. The simple "conduit that transmits practice" was now replaced by a much more complex system. I was able to see, to recognise the organising principles particular to teaching (and learning). The simple representation in Figure 7.1 now becomes something a bit more complex.

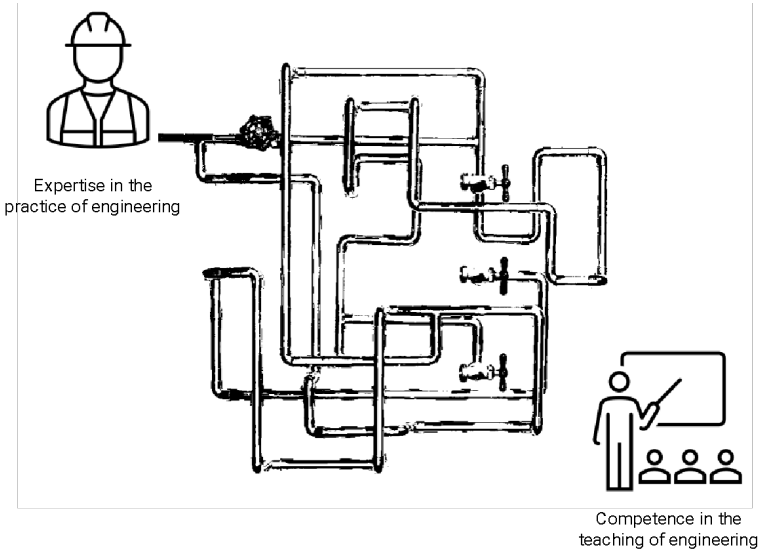

Figure 7.7: Teaching is not so much a simple "conduit that transmits practice" anymore...

The realisation of education as a practice in its own right with its own complex organising principles proved instrumental in the

development of my identity as a teacher of the discipline. This realisation also filtered down to my teaching. Being able to talk about teaching in a far more nuanced way enabled me to "see" failings in my teaching and assessment practice. In the years since completing the PGDipHE I have drawn on theoretical positions and used frameworks such as LCT (which was introduced to me in during the PGDipHE) to inform my practice.

Conclusion

The analysis presented in this chapter demonstrates that participation in a programme like a PGDip can be transformative. Deep engagement within the programme is able to shift one's perspective on education and teaching. The analysis of this transformative journey has also demonstrated the power of LCT through the use of the dimension of semantics as a proxy for detecting shifts in knower gaze. As the dimension of semantics focuses on the interplay of context-dependence and complexity of meaning, one can use semantic plots to probe to what extent students are able to recognise organising principles of a knowledge practice and realise them within the context of text-based realities.

As I progressed through the programme, I became increasingly aware of the organising principles characteristic of education. This shift from a blank to a cultivated gaze towards education was facilitated by two key factors: (a) engagement with the propositional knowledge specific to education, and (b) through meaningful interactions with significant others, including authors of texts and participants in the course (students and facilitators).

Within the context of the PGDip, the ongoing practice of writing responses proved catalytic in the development of knower gaze, which in turn influences the way in which one orients oneself towards a knowledge practice ultimately being recognised by others as a certain kind of person. The significance of writing these responses rests on

- Engaging with the content of the paper with a particular text-based reality in a way that illustrates the particular structure, the organising principles of educational knowledge.

- Facilitating a *conversation with* the author of the article and ultimately forcing the author of the reading response to take a firm position towards the paper(s) in question and argue a point.

The work presented in this chapter is located firmly within the realm of the Scholarship of Teaching and Learning which is an attempt to cultivate an "informed, reflecting and enquiring teacher whose focus is on the improvement of their teaching so as to improve their student's learning" (Tight, 2019:29). One of the main affordances of the PGDip is the placing of the academic in the shoes of the learner entering a new field. In turn, this facilitates a process of reflection to take place leading to a greater awareness of one's role as a teacher. Acquiring a suitable language of description as well as access to the organising principles of education, the participator is in a prime position to influence pedagogy within the classroom: the way in which lectures are given, assessment tasks are designed and how one thinks about curriculum. The awareness of the complexity of education as a practice is a first step to becoming a more responsive teacher.

In this chapter, I have presented and analysed my journey through the PGDip in Higher Education at Wits University. A reader may be left with the impression that I underwent a clear, linear and relatively straightforward transformation and that the journey somehow "ended". At the same time, the reader may also think that participation within a PGDipHE programme is a "silver bullet", guaranteed to solve all problems and lead to high degrees of transformation. The reality is that the journey was neither smooth and linear nor did it end. In my case, participation initiated a shift in gaze. A degree of agency on my part, a desire and interest to engage within the structures of the PGDipHE enabled my transformation. This may not be the case for someone else.

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Part III

Disciplinary Applications and Impacts

Chapter 8

A reflective practice on the transformational ability of the PGDipHE in enabling improved teaching and learning practices

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Introduction

Degree programmes in Engineering are known for poor student performance and throughput attributable to the complex and challenging nature of its subject matter. Consequently, effective teaching practices as part of engineering education is crucial to foster student success. In-depth development in higher education pedagogies by engineering academics can directly contribute to enhancing students' understanding and application of engineering principles to promote student success. The South African Higher Education (SAHE) system has unique challenges, in particular, an impoverished school system together with poor student background in Science, Technology, Engineering and Mathematics (STEM), directly affect student performance when entering higher education. Effective teaching practices provide a means of bridging the knowledge gap and improving student performance.

Most engineering educators are knowledge field experts but lack formal teaching qualifications. This means that teaching and learning practices of many engineering academics may not be effective as they are not informed by current and relevant principles and theories of teaching and learning in higher education. As a result, some engineering educators apply outdated teaching methods in the classroom, often teaching the way that they were taught, which may not align with the diverse learning needs of SAHE students.

The Postgraduate Diploma in Higher Education (PGDipHE) (hereafter, the PGDip) is a possible solution to bridge the gap by equipping engineering lecturers with the pedagogical knowledge and skills necessary for effective teaching practices. The PGDip is a crucial step towards enhancing the overall quality of engineering education, contributing to individual educator growth and

student success. As evident in the accounts reported on in this chapter, the PGDip enables lecturers to transform their teaching practices, fostering a student-centred approach through care and humanism (Rogers & Webb, 1991) and enhancing students' understanding and application of engineering concepts.

In this chapter, five Chemical Engineering lecturers from a university in South Africa offer their views on how their participation in PGDip influenced their practices. . Author 1 is an associate professor and head of the department, who completed the PGDip in 2020, Author 5 is a senior lecturer who completed the PGDip in 2021, Authors 2 and 4 are lecturer and senior lecturer, respectively, who completed the PGDip in 2023 and Author 3 is a lecturer and, at the time of writing, was about to begin the programme's second year in 2024.

Through reflective narratives, five key themes and lessons learnt through the lecturers' participation in the PGDip were identified, which contributed to enhanced teaching practices, namely:

1. The status quo is that tertiary engineering education is cold, clinical, and uncaring to students.
2. Engineering lecturers are not trained as teachers and require the PGDip to establish effective teaching and learning practices.
3. The PGDip encouraged a reflective teaching practice and helped to enable the practice of a pedagogy of care.
4. The PGDip exposed the lecturers to education theories, enabled them to become scholarly teachers and facilitated engagement in the scholarship of teaching and learning (SoTL).
5. The lecturers reported the benefits and offered critiques of the PGDip.

Each lecturer provided a detailed written narrative indicating how they transformed their pedagogical practices during and after completing their PGDip studies. A threefold qualitative approach (coding, categorising and memoing) was applied to these narratives to arrive at the five key themes.

These key lessons taken from the narratives of the lecturers concerning their perspectives on the PGDip comprise the main discussion of the chapter. Statements from the lecturers and literature support the key themes.

The status quo is that tertiary engineering education is cold, clinical, and uncaring to students

Based on the authors' reflections concerning their undergraduate experiences studying chemical engineering across various South African universities and over varying time frames, a common theme that emerged is that their tertiary engineering education experiences were cold, clinical, and uncaring, which led to them taking more responsibility for their learning and personal development. The lack of care from lecturers was a significant hurdle by Author 3 during her transition from high school to university. Author 3 provided a stark contrast between the care, enthusiasm and effectiveness of her high school teachers and her lecturers at university. She attributed this contrast to the fact that her high school teachers were equipped to teach through their education qualifications, while her engineering lecturers were not qualified to teach. Additionally, Author 3 perceived her lecturers as being unapproachable, which created two distinct disadvantages: First, not being able to seek knowledge and clarity on ideas and misunderstandings from the lecturers, and second, the lost opportunity to seek mentorship from the lecturers. Based on these perspectives, it is evident that the perceived unapproachability of lecturers adversely impacts the overall teaching and learning experiences, performance, and holistic development of students (Thompson, 2001; Vogt, 2008). Because of these experiences, Author 3's learning became an individual endeavour which required extensive self-study with minimal assistance or intervention from the lecturers. Coupled with lecturers' perceived unapproachability, a non-caring, non-supportive learning environment was the norm. Author 4 confirmed the experiences of Author 3:

> The imagination of entering a caring and ideal system which looks after my young naïve self was crushed when the first two days resulted in academic wastage as I could

> not find my class venues, and no one bothered to look or check where I could have been (Author 4).

Evidently, the uncaring experiences of Author 4 were not confined to the classroom. This initial experience made Author 4 realise that he had to be responsible for himself to a greater extent than in high school, mirroring the realisation of Author 3, who had to learn independently and take full responsibility for her learning without relying on her lecturers. It can be argued that Authors 3 and 4 possessed the necessary maturity and responsibility level to cope with the drastic transition from secondary to tertiary education, which enabled them to adapt and succeed in their tertiary studies. However, not every first-year student has such maturity and responsibility levels. Coupled with the various "distractions" at university (such as parties, dormitory life, social events, etc.), the previous point may explain the high failure and dropout rates within engineering education (Sittichai, 2012; Kiran & Javaid, 2020).

This theme illustrates the need for engineering lecturers to become more scholarly by applying interventions to promote student engagement, inclusivity, and care to improve and change the status quo. We argue that such a paradigm shift can be achieved through the participation of engineering lecturers in PGDip programmes.

Engineering lecturers are not trained as teachers and require the PGDip to establish effective teaching and learning practices

One of the main drivers contributing to all the authors embarking on the journey of pursuing a PGDip was the lack of training required to be an effective teacher. A common misconception about teaching is that it only necessitates discipline or field expertise (Abela, 2009). Possessing expertise in a particular field does not automatically translate to being an effective teacher. All authors agreed with the view that not being trained as a teacher impacts the teaching and learning effectiveness in their respective classrooms. Author 1 stated that there is an implied expectation that being a content specialist means that one should

automatically be an effective teacher. Author 2 recognised that despite possessing a Doctoral degree in engineering, he had no formal educational background to use as a transformative lens within his pedagogical practices. Both authors acknowledged that the possession of content knowledge and a Doctoral degree does not inherently ensure effective teaching and learning practices.

Through the PGDip, Author 1 was empowered with skills and knowledge to develop innovative strategies and engage with pedagogies to understand how to become an effective teacher. This transformative experience has equipped her with innovative frameworks to foster a conducive learning environment, enabling students to thrive and excel in their academic journeys. Specifically, Author 1 was motivated to utilise the student attendance and participation analysis metrics on the learning management system to track students who were not attending classes and not participating in activities such as discussion forums. Through this intervention, Author 1 was able to boost student performance and create a supportive learning environment. Meanwhile, Author 2 discovered various tools that could be used to improve his teaching methods through PGDip. He also found that the teaching tools could be used to influence or catalyse specific outcomes, such as demonstrating care to the students or improving engagement with the aid of technology. In other words, the PGDip helped him to identify problems in his classes and propose appropriate interventions to solve them.

Author 4 initially believed that effective teaching merely consisted of "*going to class and presenting curriculum content and from time to time checking if that which was presented was understood through various assessments (such as tests, tutorials, exam, etc.).*" Participating in the PGDipHE significantly influenced Author 4's teaching strategies from just being, first and foremost, a subject expert transmitting knowledge to having effective pedagogical skills for student learning outcomes delivery. He realised that the skills and knowledge acquired in his PGDip journey made him a caring teacher. Author 4 highlighted the importance of providing constructive feedback to students as an integral part of teaching, which aims to inspire students to do better next time rather than being harsh and making them feel worthless (Hattie & Timperley,

2007). Author 5 further corroborated the views of Author 4 that she came to the realisation that "teaching / delivering / imparting knowledge is an art and skill on its own." She had the initial belief that students learn best by only listening to a lecturer and students asking questions. Through the PGDip, she learned that students "learn best when exposed to a range of modalities and representations." Effective teaching is accomplished by bridging content and effective learning through teaching and learning practices, which engineering lecturers are not equipped with from merely studying engineering.

Furthermore, Author 3 highlights that her high school exposed her to "*nurturing and caring teachers who went beyond their duty to create a safe and inclusive space for all students.*" These high school teachers employed innovative teaching methods to create a dynamic and stimulating environment. They incorporated multimedia resources, hands-on experiments, group discussions, and interactive projects, particularly in STEM fields. The above-highlighted methods are effective teaching and learning practices enabled through their teacher training. Her experience at university was a stark contrast to high school, as her engineering lecturers were clinical and provided little academic assistance beyond lectures. Unlike high school educators, engineering lecturers do not undergo formal training on education theories and approaches which guide teaching and learning practices. Becoming acquainted with education theories offers the necessary training for subject matter experts to enhance student learning outcomes (Abela, 2009). Education theories address the various kinds of learning taking place in the human brain (Illeris, 2018). Through the PGDip, Author 3 could apply these education theories to improve her teaching practices. She distinctly recalls attending the "Teaching and Learning in Higher Education" module, where the instructor elaborated on the disparities between instructivism and facilitation. As the concepts were presented, she immediately identified with the idea of being a facilitator and not an instructor. Hence, she believes that the role of the educator is to assist students with care to meet their learning goals and not dictating the learning goals to them or how to "learn" (Thomas, 2005).

Overall, this theme indicates that achieving distinctions in an undergraduate degree or obtaining a PhD may equip a lecturer with essential content knowledge. However, the PGDip cultivates the knowledge and skills to teach effectively. Author 5 effectively encapsulated the PGDip journey as the bridge between subject matter and effective teaching practices:

> The decision to enrol in a PGDip was about the desire to become a proficient and passionate educator that can create a conducive, exciting, vibrant and inclusive learning environment for students, to bridge the gap between being a subject-matter expert in chemical engineering and becoming an effective communicator and facilitator of learning that can impart knowledge to students by exposing them to a range of modalities and representations.

PGDip encouraged a reflective teaching practice and helped enable the pedagogy of care

Engineering lecturers, in general, are afraid of the term "reflection" and, by extension, the improvement of teaching practices because they are unaware of how to address the shortcomings of their teaching practices. This is evident in the following comment by Author 1:

> When I started my career as a teacher, I was terrified to go through the comments received through the evaluations from students.

After Author 1's PGDip journey, she was empowered and looked forward to receiving comments from students about her teaching because she subsequently understood the importance of reflecting on these comments, whether negative or positive. She uses the tool of critical reflection to become a better teacher and show up better for her students. Author 4 agreed with the view expressed by Author 1 that he developed fundamental skills acquired in the PGDip programme that encouraged him to deeply interrogate feedback given by students through the teaching and module evaluations. The evaluations assist him in reflecting as a teacher

and bring self-awareness as to how and if what he was teaching students was understood and to evaluate if the module content was easy to follow. He recalled that in one of the modules that he taught, he realised through student evaluations that the speed of his delivery during lectures was too fast for some students. He is generally a fast speaker, so he reflected and then decided that after every slide, he should pause and engage the students to check if anyone had a question and ensure that students were following his pace.

Concerning the importance of reflective teaching practices, the PGDip emphasised the importance of reflective practice as key to the teaching profession for Author 5. Through various reflective exercises and assignments, she developed the habit of critically analysing her own teaching practice. This has enabled her to identify her strengths and areas for improvement, leading to continuous professional development. By embracing reflective practice, she has become more self-aware as an educator and has been able to adapt her teaching methods to better meet her students' needs. We discovered that the continuous reflection and refinement of our teaching practices were established and enhanced through the PGDip. Engaging in reflective practice constitutes an integral aspect of evolving into effective teachers (Zahid & Khanam, 2019).

The premise of humanistic learning theories is that students are at the centre of learning, whilst educators are facilitators of the learning process (Suroso et al., 2023). The three essential concepts supporting a pedagogy of care using the humanistic learning theory are a holistic approach to teaching and learning, student-centredness and self-actualisation (Rogers & Freiberg, 1969). The importance of the ethics of care, specifically empathy, in engineering practice has been emphasised by several scholars. However, caring and humanistic teaching has received less attention in engineering education compared to other fields (Baier et al., 2020). Through the PGDip, we realised the importance of being humanistic engineering educators and instilling care in our classrooms through various teaching practices. Author 3 effectively described her position on embodying the role of a humanistic educator:

> I am firstly a human being and then an educator; hence, I choose to use a student-centred, nurturing and caring approach to every facet of teaching and learning in my classroom.

By undertaking research for a PGDip assignment, Author 3 found that the following quote by Katherine Merseth (in Walsh, 2016) appropriately defined her view on the critical importance and necessity of care in the classroom: "*People don't care how much you know until they know how much you care.*"

She believes that if students do not feel cared for or safe in the environment that you create, regardless of what you know, they will not be open to learning. Practices such as an open-door policy, wellness surveys, and recognition and reward of hard work were actions that represented what care meant to Author 3. These practices aimed to foster a sense of care and establish effective channels of communication with students. During her PGDip journey, she realised that these were forms of an informal curriculum that she had naturally embedded within the broader context of engineering education. Additionally, through the PGDip, she understood that care in the form of a student-centred environment could be created for her students through core educational theories or practices such as experiential learning, personalised and constructive feedback, diverse assessment methods, and ensuring alignment between different modules in the curriculum.

Author 1 supported the position of Author 3 regarding care in the classroom as she realised her journey through a PGDip fundamentally transformed how she engages with students, transcending traditional teaching methods and embracing the pedagogy of care. For the first time, she understood her role as a teacher and the importance of showing up as a teacher who cares for her students after embarking on her PGDip journey. This transformative experience equipped her with innovative frameworks that foster a conducive learning environment, enabling students to thrive and excel in their educational journey while knowing that she cares about their well-being and learning experiences. Implementing the pedagogy of care

became the cornerstone of her teaching approach. This paradigm shift places the holistic well-being of her students at the forefront, acknowledging their diverse backgrounds, challenges, and emotional needs. By cultivating genuine empathy and attentiveness, she has created an environment where students feel valued, understood, and supported. This approach not only enhances their learning experience but also empowers them to navigate academic challenges with confidence. Like Author 3, these tailored frameworks provide a structured pathway for effective communication, collaboration, and meaningful engagement. By integrating learner-centred strategies, Author 1 encouraged students to actively participate in shaping their learning journey. This autonomy and sense of ownership ignite students' intrinsic motivation and curiosity, fostering a deeper level of engagement.

Furthermore, Author 4 substantiated the imperative for care in the classroom, emphasising its significance by pointing out that the skills and knowledge acquired in the PGDip have made him a caring teacher. It was through engagement in the "Teaching and Learning in Higher Education" module that Author 4 learned of the importance of ensuring that students become emotionally involved in whatever they are taught. His consistent effort to employ the most straightforward examples whenever he teaches a new concept supports this.

The PGDip provides theory, holistic teaching and learning practices and tools required for the authors to understand the importance of creating a student-centred environment conducive to learning and promoting care in their classrooms (Rogers & Webb, 1991).

PGDip created exposure to education theories and facilitated engagement with SoTL, thus enabling the lecturers to become scholarly teachers

We believe that understanding education theories provides a platform to become scholarly teachers. Theory provides a lens to understand the behaviour of phenomena and can be used to explain the reasoning supporting specific interventions to yield desired pedagogical outcomes (Neves de Jesus & Lens, 2005).

We believe that the difference between teachers and scholarly teachers is the latter's ability to understand and apply education theories in practice. Action research as a scholarly approach to solve nuanced and specific issues faced by engineering lecturers requires an understanding and application of education theories in context. To facilitate this understanding, the PGDip offers the "Research Methodology" module, which requires lecturers to actively identify key challenges in their classes and propose suitable interventions, grounded in theory, to resolve them. This module helps lecturers to resolve key issues in their classes and provides a relevant problem-solving approach that can be applied to future interventions.

Aligning with the above, Author 1 highlighted that the theories of experiential learning and critical reflection acquired during her PGDip studies shaped how she structured her courses and interactions with students. Through her adoption of these theories, Author 1 believed that she was able to design learning activities that enabled her students to actively participate in their learning journey. The benefits of such active engagement, as reported by Author 1, include "*intrinsic motivation and curiosity, resulting in a deeper level of engagement.*" Regarding the application of education theories into practices, Author 1 argued that:

> This approach encourages students to apply theoretical concepts to real-world scenarios, promoting a deeper understanding and the development of practical skills. By incorporating diverse learning experiences, such as group discussions, case studies, and hands-on projects, I provide students with a well-rounded education that prepares them for the challenges of their respective fields.

Similarly, Author 3 wanted to avoid being a "mere clinical instructor" delivering lengthy monologues without engaging in meaningful dialogue and interactive learning experiences with her students. Instead, she incorporated the practice of facilitation and a pedagogy of care, into her teaching even before undertaking the PGDip journey. Author 3 maintained that the PGDip enabled her

to use education theories to provide a rationale for her teaching practices. Author 2 shared a similar view:

> The PGDip provided a platform to participate in SoTL research. Based on the dynamic needs of my students, I began to partner with my colleagues to undertake action research to implement interventions in my classes. I also applied for the Teaching Innovation Fund to improve my teaching. Hence, I can now conduct my teaching in a more theoretically sound manner. Overall, the PGDip has been a paradigm-shifting experience and has enabled me to integrate two of my core functions as an academic (teaching and research) into SoTL, action research, theory-informed pedagogically sound teaching practice.

Upon embarking on his PGDip journey, Author 2 realised that his teaching lacked theoretical grounding and did not meet the diverse needs of his students. Although there are many learning theories, he realised that it is not possible to engage with and apply all of them to practice. However, his practices aligned with constructivist theory (Hein, 1991) and Feuerstein's theory of mediated learning (Tan, 2003), which is based on Feuerstein's earlier theory of structural cognitive modification. The mediated learning theory fascinated him, as it provided a means to adjust the cognitive ability of his students. The theory also refuted the notion that some students are inherently more intelligent than others. Therefore, Author 2 incorporated the theory in his pedagogy through the following practices:

> I related concepts being taught to practices that students will encounter in their careers as engineers, thus using the mediation of meaning. Meaning also comes across through videos and hosting guest talks with speakers from the industry. I share my intentions behind every class, assessment, or assignment to help students understand and appreciate why we are doing certain things and how it will develop them. By doing this, I find that students are more attentive and receptive to the activities in class. Hence, this creates intentionality and reciprocity. Finally,

> I help students understand how the principles they learn in my classes will help them in different career paths-regardless of whether they decide to pursue postgraduate studies or work in industry. Thus, I embody the tool of transcendence.

Concerning the theories adopted from their PGDip journeys, Author 3 realised that humanistic theory promoted holistic learning such that students could "self-actualise" and determine their own learning goals, which closely aligned with facilitation theory (Johnson, 2014). Additionally, Author 3 believed that students do not learn by listening to hours of theory but rather by learning skills and performing practical problem-solving-based examples (Kolb & Kolb, 2017). In this case, experiential learning is a non-traditional educational approach based on "learning by doing" and learning to apply theory to problem-solve practical scenarios encountered in industry (Kolb & Kolb, 2017). In addition, through her PGDip studies, Author 3 incorporated authentic assessments such as design projects to expose students to real-life problem-solving methods (Lombardi & Oblinger, 2007). She saw value in combining formative and summative assessments and found that individualised feedback is imperative for students to reflect on their skills and help them identify areas of weakness.

On the other hand, Author 4 drew on the work of Hénard and Roseveare (2012), who describe quality teaching as a multi-level endeavour that produces student learning outcomes or graduate attributes using appropriate pedagogical techniques. Quality teaching occurs when the three interdependent levels of support are present: institutional, programme-level and individual support for quality teaching (Hénard & Roseveare, 2012). Building on this point, Author 4 emphasised that Walker and Gleaves (2016) define caring teachers as those who respect and listen to their students, take interest in student voices, deliver prompt feedback, and maintain an encouraging, positive approach to assessment even when learning objectives are not fully achieved. This made Author 4 realise the importance of giving constructive feedback to his students to inspire improved performance without being harsh and making them feel worthless (Hattie & Timperley,

2007). Author 4 also advocated that emotions influence attention, memory, and focus (Goralnik et al., 2012). Hence, he believes that "a strong connection to students, emotional engagement and an ethic of care is what a caring teacher ought to practice."

In the same vein, Author 5 highlighted that the PGDip helped her to understand the importance of constructivism and Kolb's theory of experiential learning in chemical engineering. Kolb's experiential learning theory suggests that learning occurs through a cycle of concrete experience, reflective observation, abstract conceptualisation, and active experimentation (Kolb et al., 2014). Author 5 believed that this theory emphasises the significance of practical, hands-on experiences in facilitating students' learning and retention of knowledge. By incorporating this theory into her teaching, she provides opportunities for students to apply their theoretical knowledge in real-world scenarios, encouraging them to reflect on their experiences and actively experiment to deepen their understanding.

Benefits and critique of the PGDip as reported by the lecturers

The authors reported significant advantages of the PGDip. Author 3 highlighted that participating in the PGDip had several advantages for her as a young academic. It provided a deeper understanding of education theories, assessment, curriculum, technology, and how to incorporate all these facets into her teaching. Furthermore, she has become actively involved in the SoTL - specifically within the field of engineering education, as the PGDip has provided her with a platform to showcase the new teaching and learning methods established through the knowledge gained through PGDip. Aligning with these advantages, Author 2 added that learning to write a comprehensive teaching portfolio and having it reviewed was a strong reason that led him to pursue the PGDip. Author 4 outlined that the PGDip led to him becoming a caring teacher. Specifically, he used the learning management system's retention centre to identify students struggling with the course content, engage with these "at-risk" students, and provide guidance to help them to improve their performance. Author 1 agreed with the notion that the PGDip

offers a transformative journey, nurturing educators to deeply connect with the human aspect of teaching. Beyond mastering the technicalities and subject content, it cultivates a profound understanding of students, their diverse needs, and individual journeys. This realisation empowers educators to thoughtfully design inclusive content, ensuring that no student is left behind on their path to academic excellence.

In the same vein, Author 5 highlighted that through her PGDip journey, she discovered several valuable insights and gained a deeper understanding of the teaching profession. She sums up by stating:

> This transformative experience has greatly influenced my practice as a teacher and enhanced my ability to effectively engage with students.

Regarding the negative aspects of the PGDip offering, Author 2 believes that despite being a part-time course, the workload can be demanding on lecturers, especially with competing academic priorities throughout the year. Although the PGDip instructors are flexible in shifting deadlines when required, sometimes the additional time granted to submit assessments still falls short of what is needed. Author 3 indicated an agreement with these points, whereas Author 4 expressed concerns about the readability of the course materials, particularly for individuals whose first language is not English. Some students also found using the predominant learning management system for lectures and assessment submissions difficult. Hence, Author 4 advised that diverse learning platforms should be considered.

Furthermore, Author 3 observed that students from external institutions encountered difficulties with specific concepts, such as learner guides (not implemented in their institutions), module maps, and module or unit outcomes, especially prevalent amongst lecturers from TVET (Technical and Vocational Education and Training) colleges. To address this issue, a brief introduction to these concepts before more in-depth assessments is necessary to bridge knowledge gaps.

On the other hand, Author 1 identified that for educators outside the education discipline, it may not be clear that the methods taught, and tasks assigned reflect how one should embody the role of a teacher and engage with students. Some individuals might overlook this crucial aspect, perceiving the programme merely as a series of tasks to complete to attain the qualification. The PGDip should explicitly outline how educators can integrate the course material into their daily teaching, assessment, and curriculum design.

Overall, the advantages of the PGDip outweigh the drawbacks, as the programme opened various avenues for the authors to enhance their teaching practices and become effective engineering lecturers.

Conclusion

The themes identified from the narratives of the authors who are currently studying or have completed the PGDip highlight its transformative effects. As we reflect on the main themes, ranging from the need for a paradigm shift in tertiary engineering education to the significance of the PGDip in developing effective teaching practices, cultivating reflective teaching, embracing the pedagogy of care, and becoming scholarly teachers, the following overarching conclusions can be drawn.

The narratives provided by the authors identify a substantial need for a transformative shift in tertiary engineering education. The status quo, characterised by a perceived lack of care, clinical teaching, and unapproachability of lecturers, comprises a systemic issue that requires attention. The personal experiences shared by the authors illustrate the challenges faced by students entering higher education and the vital role played by their lecturers in influencing their learning experiences. The substantial role of the PGDip in addressing these challenges becomes evident through the shared experiences of the authors. The themes consistently emphasise the inadequacy of traditional content expertise in engineering education and the need for a more comprehensive pedagogical skill set. The PGDip catalysed change, providing a platform for engineering lecturers to

bridge the gap between subject matter expertise and effective teaching practices.

Furthermore, the PGDip is a practical transformative journey that equips lecturers with the tools needed for reflective teaching practices and encourages the pedagogy of care. The focus on empathy, responsiveness, and fostering a student-centred learning environment demonstrates the programme's impact on developing effective lecturers who have transitioned to be compassionate mentors committed to their students' holistic development. The exposure to education theories and the engagement in SoTL activities were key outcomes of the PGDip. The emphasis on scholarly engagement is transformative, elevating lecturers from mere teachers to scholarly practitioners who understand, apply, and contribute to the theoretical foundations of effective teaching. Despite several reported advantages of the PGDip, the critiques provided by the lecturers offer insights for improvement. The workload challenges, language barriers, and the need for clarity in applying the learned methods in daily teaching are areas that can be optimised to enhance the overall effectiveness of the programme.

Overall, the authors' narratives demonstrate the transformative journey facilitated by the PGDip. From reforming teaching philosophies to fostering caring and reflective practices, the programme is viewed as a beacon for change in higher education. Moving forward, these narratives call for a joint commitment to redefine the engineering education landscape, where the PGDip serves as a trusted platform to cultivate engineering educators who excel in their disciplines, harnessing the transformative power of teaching and learning.

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Chapter 9

Grappling with transformation through curriculum development

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Introduction

Transformation in South African Higher Education (HE) is a necessity and must be prioritised. Such transformation includes improved physical access to educational opportunities and epistemological access in ways that promote social justice, improve student learning experiences and better prepare our students for the needs of the broader South African society. This chapter argues that the PGDip in HE contributes to this ambitious transformative goal in two ways. First, the PGDip facilitates engagement with higher education theories that inform evidence-based teaching practices. Second, the Diploma encourages critical reflection. This combination of theory and reflexive practice equips us, as educators, to engage with the complexities of transformation in our teaching practices. Curriculum development is a fundamental component here, but one whose value tends to be underestimated or overlooked. Drawing from a case study example, this chapter illustrates how learning on the PGDip (HE), Curriculum Development Module equipped me as an HE academic and educator to grapple with the complexities of transformation through curriculum development processes on the professional Master's Programme in Counselling Psychology at Rhodes University.

Transformation in HE

South Africa contends with a powerful political history where race, ethnicity, social class and geography were used to perpetuate privilege for a white minority, and language and quality of education were strategically used to protect this privilege (Adonis & Silinda, 2021). Recognising that historically, universities have served the societal elite, Boughey and McKenna (2021) argue that transformation in HE in South Africa is to some extent about making powerful knowledge more broadly accessible, allowing for more social mobility across societal classes. Adonis and Silinda (2021) note that while transformation in South African HE has been disappointingly slow, important changes have occurred, including the growing representation of black and female students in public HE institutions, and the introduction of the National Student Financial Aid Scheme (NSFAS) to support financially vulnerable students (Adonis & Silinda, 2021). Boughey and McKenna (2021) highlight the sizeable growth in students accessing HE through state universities in South Africa over the past 20 years with figures increasing from under 500,000 to more than one million.

However, Adonis and Silinda (2021) argue that transformation in HE is about more than physical access and admission rates, explaining that graduation and retention rates of students from historically disadvantaged backgrounds, of which the majority are black students, continue to be low. They note that limited transformation in HE institutional culture is an important reason for this, pushing these students to the margins of the academic community. Adonis and Silinda (2021) explain that institutional culture is a culmination of the values, attitudes, interaction styles and the collective memories of an institution that become known through the lived experiences of those who work and study in the institution. Universities are then experienced as "powerful mechanisms of social exclusion and injustice through their internal thinking, structures, cultures and practices" (Adonis & Silinda, 2021: 77).

Within this context, Boughey and McKenna (2021) argue that curriculum development can play a powerful and inclusive transformative role, in addressing deficit conceptions of the

"decontextualised learner" within institutions of HE. They explain that attempts to increase access to HE in South Africa have raised important questions about curriculum content relevance. In particular, curricula have been criticised for the dominance of knowledge emanating from the Global North, and the limited recognition of local knowledge.

A transformative approach towards a more socially just and decolonised curriculum would mean developing curricula that address the lived experiences of South African people, centring scholarship emerging in and about South Africa, and Africa more broadly, that challenges the notion that the only legitimate specialist knowledge emanates from the Global North (Boughey & McKenna, 2021).

Rhodes University Postgraduate Diploma in Higher Education: Curriculum Development Module

The Postgraduate Diploma in Higher Education - PGDip (HE) (hereafter, the PGDip) offered at Rhodes University, is a 120-credit, honours-level (NQF 8) – National Qualifications Framework - course offered through the Centre for Higher Education Research, Teaching and Learning (CHERTL). The course comprises four compulsory modules (Learning and Teaching in HE; Curriculum Development; Assessment of and for Student Learning, and Evaluation of Teaching Courses) and one elective. The diploma aims to develop reflexive HE practitioners and is assessed through a teaching portfolio submitted on completion, to assess participants' capacity to apply course concepts and processes to their disciplinary teaching contexts. Formative assessments are submitted at the end of each module, in the form of written assignments.

Curriculum Development is the second module presented on the PGDip programme, following an introductory module on Learning and Teaching in HE. The purpose of the module is to build theoretical understandings about curriculum development in HE settings and develop skills in designing, interpreting and implementing curricula using an outcomes-based and learning-focused framework. The module comprises 10, two-hour seminars presented over one week through face-to-face engagements,

further informed by prescribed readings, and holds a credit weighting of 30. Learning outcomes include the ability to draw from HE theories and concepts to critically analyse, reflect on and evaluate approaches to curriculum development; and redesign courses and modules to align learning outcomes with socially just pedagogies that improve epistemological access for diverse students. Broad themes of the module include engagement with theoretical understandings of curriculum as a concept, factors that influence curriculum development and curriculum alignment.

The Professional Master's Programme in Counselling Psychology

The Rhodes University Professional Master's in Counselling Psychology (MCP) programme is a two-year combined, coursework and research Master's degree (NQF 9) that includes three components: one year of coursework, a mini-thesis dissertation, and a one-year practical internship completed at the Rhodes University Student Counselling Centre (SCC). The programme is accredited by the Health Professions Council of South Africa (HPCSA) and leads to professional registration as a Counselling Psychologist in independent practice, in South Africa, after obtaining a 70% pass in the HPCSA professional board examination.

Having contextualised the Rhodes University PGDip (HE) and its goal to develop theoretically informed and critically reflexive teaching practitioners, the remainder of this chapter illustrates how theoretical learnings and reflexive practice on this module, equipped me, as an educator, who co-ordinates and teaches on the MCP programme to grapple with the complexities of transformation on the programme at our university. The discussion is structured in two parts. Part 1 examines different definitions and conceptions of curriculum, and uses reflexivity to consider the concept of curriculum in context. This context is then used to grapple with transformation on the MCP programme while recognising powerful stakeholders across international, national, professional, institutional and student levels. Part 2 uses the concept of constructive alignment and reflexivity as a

tool in managing these different contextual levels of influence in curriculum development on the MCP programme.

Theoretically defining the concept of curriculum, and reflecting on its implementation in context, to inform evidence-based teaching practices on the programme

Curriculum is a complex term. Fraser and Bosanquet (2006) propose using a categorical approach to define curriculum where a product-driven definition would focus on course content, and a process-driven definition would recognise that curricula exist within broader contexts, where teaching and learning processes interact. Before engaging with the reading materials on the PGDip Curriculum Development module, I would have embraced a product-driven definition. This narrow, technical definition explains curriculum as a single course's syllabus; a description of its content; or the structure of a whole programme of teaching that explains how courses or modules fit together (Boughey & McKenna, 2021). It is practical, easily applicable and often argued to be decontextualised, although it remains embedded in broader social processes.

However, Boughey and McKenna (2021) explain that curriculum could also be understood as the way in which an HE institution distributes its knowledge, in the form of the planned and the enacted curriculum. They note that the chosen topics being taught, the reading materials prescribed in understanding these topics, the authors of these works, the identities of the educators teaching the materials and the learners being inducted into the discipline, as well as the learning behaviours deemed socially acceptable or not, all form important aspects of the curriculum and shape a sense of belonging within the learning environment. It had not occurred to me that curriculum could be enacted. Through reflective exercises on the PGDip in HE course, and considering a more process-driven definition of curriculum, I began to wonder what was being enacted on our MCP programme through our curriculum choices.

Desai (2012) and Garuba (2015) remind us that there is a far broader context within which knowledge production and

learning occur. Curriculum is a social product that is highly influenced by context. There is considerable power in the decisions made about what types of knowledge are endorsed and legitimised through inclusion in a curriculum, and how these decisions influence a discipline and its professional practice over time. For example, on the MCP programme, teaching staff make choices about the content of particular courses, the focus of these seminars, the reading materials chosen to guide student learning, and pedagogical choices to promote relational ways of engagement. Some of these teaching resources continue to be drawn from the Global North and promote context-specific understandings and applications of therapeutic and assessment practices. These approaches do not adequately equip our students for practice in the South African context. They also legitimise North American and Eurocentric knowledge as superior to our indigenous knowledge, communicating this to our students through our curriculum choices. Yet locally developed materials are not necessarily always accessible or available, or soon become outdated, leaving me as an educator in the challenging position of not knowing how best to equip my students to meet the learning outcomes and graduate attributes of the programme.

Garuba (2015) provides some practical advice, urging an integration of diversity in the selection of voices, authors, positions and knowledge sources when constructing a curriculum. Further to this point, Ratele (2024:470) advises that teachers of psychology orientate their students to the knowledge sources which they are drawing from, explicitly stating that this is a "Psychology that situates and is situated in" an African, non-African or US (United States) society. This is a powerful point, because as Desai (2012) notes, curriculum is developed with a particular type of student audience in mind. The discipline of psychology conceptualises mental health, well-being, psychopathology, psychotherapy and support in specific ways that typically draw from knowledge emanating from the Global North, often negating African wisdom and healing practices. Ironically, these indigenous knowledge systems are sometimes what inspires our students to pursue professional training in psychology. If my intention as an educator is to equip my students with specialist knowledge and skills to develop proficiency in our

South African context as professional Counselling Psychologists, then the curriculum I have influence over developing, must address a sense of belonging and acceptance of our students, through the knowledge sources that I choose to legitimise.

Boughey and McKenna (2021) note that when grappling with the considerable task of transformation in curriculum development, educators must ask:

1. What is being legitimised by the current curriculum?
2. Who (as knowers) are being legitimised?
3. In what ways are these knowledge sources and knowers being legitimised?

Using these three questions, the discussion that follows considers different levels of influence at international, national, institutional, disciplinary and student body levels that impact on curriculum develop on the MCP programme at Rhodes University.

International level

Our programme seeks to align itself with a global understanding of what counselling psychology is and does. In so doing we legitimise this programme as aligning with international best practices and standards. Counselling psychology is a globally recognised category of professional, applied psychological practice that typically focuses on a non-pathological approach to distress (Lee, 2019). The category seeks to understand a person in relation to lifespan development, personal strengths, resiliency and protective factors, positioning the person in context (Lee, 2019). Consequently, our professional programme includes courses on lifespan development, community psychology, and cultural competencies, aligning with international guidelines and values. Not all counselling psychology programmes embrace these guidelines, yet they do to some extent, legitimise the category internationally and can potentially constrain the curriculum to what is internationally defined as the realm of counselling psychology, marginalising context-specific needs such as the important role that Africa(n)-centred psychology could and should play on the MCP programme.

Importantly, the category of Counselling Psychology has come under criticism internationally for needing to demonstrate its relevance and meaningfulness. In response, scholarship has emerged, arguing for the relevance of Counselling Psychology globally, and more specifically in South Africa (see for example Young, 2013; Bantjes et al., 2016; Haine et al., 2023). This criticism has provided the opportunity to consider how to transform Counselling Psychology to be more responsive to global and local mental healthcare needs. Our programme offers a three-seminar workshop that specifically addresses the identity and professional practice of counselling psychologists in our country because of this debate.

National level

Mamdani (2008) reminds us how political changes shape the development of HE institutions, academic disciplines and their curricula. Counselling psychology first emerged in this country at Stellenbosch University and was introduced as a way of mentoring and guiding the career development of university students. Assessment tools and interventions were deliberately used to privilege white, and particularly Afrikaans-speaking South Africans (Bantjes et al., 2016). These discriminatory origins mean that the category has much to make up for, as it attempts to establish its relevance in a democratic South Africa. Broadening access to mental healthcare services requires multilingual practitioners with strong cultural competencies who are able to apply their skills across a range of languages and contexts to promote equality and social justice. This reality shapes the criteria which we use when selecting new applicants into the professional programme, and the language and cultural competencies of the academic and case supervision staff appointed to the programme, legitimising the importance of multilingualism for the category. The curriculum includes a course focused on developing cultural competencies such as working with marginalised groups, sexual- and gender-diverse individuals, and understanding race and ethnicity, drawing from South African research and prescribed reading materials. In these examples, we see how the curriculum is attempting to be responsive to the political landscape in South

Africa by using specialist knowledge created and developed in our unique context that addresses the lived experiences of the South African majority. However, the programme continues to be taught exclusively in English, which is problematic, considering that we are educating our students in talk-therapy interventions.

Professional level

The recurring question of relevance of Counselling Psychology is a prominent theme at the professional level in our country too, where registration as a Counselling Psychologist is regulated by the Professional Board of Psychology of the HPCSA. A guide of minimum training requirements was recently published by the Professional Board of Psychology (2019) defining Counselling Psychology and the specific areas of focus and practice for South African Counselling Psychologists. These minimum competencies align with international guidelines, and are a requirement on professional Counselling Psychology training programmes at South African universities for programmes to maintain HPCSA compliance and accreditation. In so doing, these programmes maintain legitimacy as providing the necessary quality of training to produce competent South African Counselling Psychologists.

In the preceding discussion, we have seen the influence of key stakeholders at international, national and professional levels, on curriculum development. Their viewpoints and the decisions that they make about the profession have a powerful impact on what types of knowledge are legitimised, impacting powerfully on the way in which future Counselling Psychologists are trained and shaped. Toohey (1999) speaks of curriculum ideologies or the values and beliefs that influence curriculum decisions. She explains that those placed in positions of power to decide on curriculum content are influenced by cultural and political views and previous experiences of education that shape their decision-making. The curriculum ideologies that result, are seen in the teaching and learning strategies employed on a programme, assessment methods, course objectives and pedagogy (1999). Knowledge on these professional programmes is influenced by international guidelines pertaining to best practice, guided by government policy, and regulated by the HPCSA Professional

Board of Psychology. This top-down regulatory structure makes it challenging to rethink curriculum assumptions.

Institutional

Institutional influences further shape curriculum development on our MCP programme. Rhodes University's Institutional Development Plan (Rhodes University Council, 2018:13) aims to be "locally responsive and globally influential and impactful" through a nexus of teaching, research and community engagement. The University's community engagement initiative positions social justice and social responsibility as key components of education, with an emphasis on democratic citizenship. Here, students develop greater social awareness of their responsibilities to use their educational opportunities to improve broader society. Community-based service learning (CBSL) is a useful vehicle for such learning because it allows students to apply theoretical learnings in practice, in socially responsive ways (Akhurst & Mitchell, 2022), building graduates who become professionals who are more likely to promote and integrate social justice into their professional lives.

Aligning with the University's institutional development goals, the MCP programme has sought to integrate CBSL into its curriculum through community-based partnerships, an example of which is the Joza Assumption Development Centre (ADC). The ADC is an economic empowerment NGO (non-governmental organisation) focused on skills training and small business development. The NGO is situated in Joza, the largest township in Makhanda, where Rhodes University is located. In response to the priorities identified by the Joza community, the ADC aims to transform the Joza economy by supporting young people's entrepreneurship. However, the mental health consequences of longstanding social and structural inequalities, have created an important need for mental health support and services at the centre. The MCP programme has been responsive to this need by partnering with the ADC in providing individual counselling services, psychosocial workshops and group therapy interventions on site, through our student psychologists. Gaps and challenges experienced by our students in applying theory-in-practice

at the ADC inform curriculum development decisions on the programme, including the content of courses and the sequences in which particular training and workshops occur.

The integration of this CBSL partnership as a fixture in the MCP curriculum legitimises the prominent role that community psychology plays in the training of our students as emerging Counselling Psychologists, and the specialist knowledge needed to competently implement this work. This is an important recognition because community psychology tends to be marginalised in mainstream psychology. The legitimising of the specialistic knowledge of the ADC, as our CBSL partner, in guiding intervention needs in our CBSL component on the MCP programme is also an important recognition of the central role that partnership, and local knowledge plays in effective community-engaged work.

Discipline

Psychology as a discipline is in flux with a recognised need for transformation (Malherbe et al., 2024). Practitioners and scholars are grappling with and challenging the relevance of the profession (see for example Bowman et al., 2024), which has historically drawn from the Global North and the biomedical model to conceptualise mental health, distress and pathology. However, these context-specific conceptualisations of psychology miss the considerable social and structural inequalities that the typical South African contends with (see for example work by Lund et al., 2018 and Pillay et al., 2013). These inequalities impact profoundly on mental health and well-being. These same context-specific conceptualisations of psychology also negate indigenous South African knowledge systems that guide local explanatory illness and help-seeking models. One criticism over the years has been the degree to which professional training in psychology moulds professionals to meet the mental health needs of a small minority of wealthy South Africans who are protected from these social and structural inequalities, which burden the South African majority (Bowman et al., 2024). Many psychologists are not equipped in their professional training with theoretical frameworks and applied practical experience to competently conceptualise and

intervene with distress formulated within a social action or liberation model (Akhurst, 2022).

Community psychology is a major course in the MCP programme at Rhodes University, providing students with a theoretical lens, framework and orientation towards psychological intervention that challenges many of the typical biomedical conceptions of how to bring about health and well-being. With a specific focus on being partnership-orientated, this theoretical approach promotes understanding of mental health needs and priorities, within a social action / social liberation model that recognises and emphasises the impact of social and structural inequalities (Akhurst, 2022). Intervention is focused on addressing the needs as identified by the community partner, within their particular context, and challenges the psychologist to work in collaboration with their community partner to bring about interventions that meet these needs (Akhurst & Msomi, 2022). In so doing, the psychologist respects and promotes the community partner's agency for change. One of the most practical, concretely visible ways in which this approach is applied, is by taking psychology to the community partner, in their physical setting. While most South African professional training programmes offer a community psychology component, few currently integrate this with a service-learning component. However, CBSL is an effective vehicle for teaching the principles and practice of community psychology and provides a transformative example of how psychology could (and should) be practiced in South Africa.

Student level

One final contextual level that must be acknowledged on the MCP programme at Rhodes is the students. I've noted in the discussions that precede this section that the curriculum ideologies that ultimately dictate the content of our programme, also influence who applies for the course, and the type of candidate who we cater to. Historically the programme has favoured an English-speaking white minority, but in meeting global, national, professional and institutional calls for relevance, the programme has sought to attract a far broader demographic of students over the past 15 years including multilingual, academically excellent students

with already-established cultural competencies and a willingness to build on these to develop the discipline further. These are high expectations that we place on our students, that require a curriculum that aligns with these values and intentions.

Luckett (2010:17) reminds us that "curriculum practices construct particular identities and forms of agency for students". Student Counselling Psychologists on our programme are developing a professional identity through engagement with the curriculum. Therefore, to meet the goal of equipping these students as future leaders in the profession, this curriculum must not only provide abstract and specialised knowledge about Counselling Psychology as a practice, but also teach students about contextually sensitive application, while supporting and validating their professional identity development (Luckett, 2010). Finding this balance in a curriculum with so many influential levels of stakeholders is a significant challenge. Drawing from the concept of constructive alignment (Biggs 1999) in curriculum development proved a useful tool in finding this balance and establishing congruence across these macro, meso and micro levels. Part two of this chapter provides an illustration of this application.

Using constructive alignment and reflexivity to manage these contextual levels of influence in curriculum development on the MCP Programme.

Biggs' (1999) concept of constructive alignment is the process of considering the extent to which the teaching and learning activities and assessment tasks used in a curriculum meet the learning outcomes intended for the qualification. Constructive alignment, a key thread in the PGDip, proved to be a useful tool for curriculum development on the MCP programme because it provided a framework for managing the different stakeholders and levels of influence discussed in Part 1 above, while still allowing me to grapple meaningfully with transformation on the programme. The purpose of the MCP programme and learning outcomes are discussed and reflected on in terms of their alignment with teaching and learning methods and assessment practices, as well as evaluation procedures.

Purpose of the programme

The purpose of the coursework year of the MCP programme (M1) is to provide Counselling Psychology students with the minimum set of HPCSA regulated competencies (Professional Board of Psychology, 2018) to ethically and professionally perform as Counselling Psychologists in South African contexts. The M1 coursework curriculum is shaped by the definition of Counselling Psychology as mandated by the HPCSA, and minimum competencies outlined by the profession (Professional Board of Psychology, 2018:2)

> Counselling psychology is a specialist category within professional psychology that **promotes the personal, social, educational and career functioning and well-being** of **individuals, couples, families, groups, organisations and communities**. Counselling psychologists assist people with **normal developmental issues**, and also **prevent and alleviate psychological and mental health disorders** that range from **mild to moderate severity. Psychological assessment, diagnosis, and formulation** draw on a **holistic appreciation of people's lived experiences** and **their sociocultural contexts**. Counselling psychologists deliver a range of **high-intensity psychological interventions** that take into account the therapeutic potential of **positive relationships, and people's strengths and resources.**

Specific outcomes for the programme

In accordance with HPCSA requirements, the curriculum has been constructed in four parts: psychological assessment; psychological therapies; professional practice; and research. Learning outcomes have been identified in relation with each of these modules. Exit level outcomes outlined by the South African Qualifications Authority (SAQA) are used as further guidelines to divide the curriculum into part 1: competent to apply specialist knowledge applicable to counselling psychology and part 2: competent to apply advanced research techniques in the field of counselling psychology.

A particular strength here is the alignment between HPCSA and SAQA requirements and curriculum content on the programme. The list of minimum competencies required by the HPCSA have been developed into learning outcomes on the programme and are outlined in Table 9.1 and guide the content and structure of our programme curriculum. However, Wheelahan (2007) cautions against heavily competency-based training programmes because of their tendency to oversimplify knowledge. To some extent this critique is relevant on this MCP programme in that such a considerable focus on competencies doesn't leave sufficient room for critical appraisal of the reasoning behind why particular treatment or assessment approaches are chosen, and their relevance in the South African context. Luckett (2010) instead argues for a balance between abstract, specialised forms of knowledge, and contextually considered implications for practice, to allow for the integration of indigenous knowledge systems into knowledge frameworks dominated by thinking from the Global North. This is a potential limitation on the MCP programme which could have negative implications in terms of epistemological access for students while training and as their careers develop. As a consequence the integration of critical African-centred psychology as a course topic will be suggested for next year's curriculum, even though it is not a competency-based requirement of the HPCSA.

Teaching and learning methods and activities

The majority of the teaching in the M1 year takes the form of seminars. The seminars introduce the main theoretical concepts to students and may include student presentations, role plays, videos, Microsoft PowerPoint slides and small group work. Students are required to engage with prescribed and recommended readings beforehand in order to allow for engagement and discussion during contact teaching time. In recent years, more blended learning approaches have been introduced on the programme. One approach that students reported to work particularly well here was when lecturers provided MS PowerPoint presentations with audio commentary before the planned seminar contact time as part of the students'

preparation time and used the contact time, not to revise the materials but rather for practical application in the form of role plays and class discussion.

A second important teaching and learning strategy on the course is case work and supervision. From the second term, students begin carrying a therapeutic case load where they apply their learnings about psychological therapies and assessment practices to clinical cases. Casework is closely monitored by a casework supervisor who students meet with weekly in two-hour paired supervision sessions. Here, video or audio-recordings of case materials are reviewed by the supervisor along with written case reports and students receive feedback to improve their interview and assessment skills, diagnostics, case formulation and treatment intervention skills.

In terms of growing epistemological access, an important consideration would be the integration of more varied languages of instruction used to teach on the course, in role play exercises and in the case supervision space. Having the opportunity to watch a psychologist role play a therapy session in isiXhosa, applying psychotherapy techniques in the language would be a considerable learning opportunity, as would the observation of a psychologist completing a scholastic assessment in Afrikaans or isiZulu.

Provisional assessment criteria

Academic performance and applied clinical practice are assessed throughout the M1 coursework year. These assessments take the form of learning-focused assessments which include summative and formative assessments. The summative assessments are intended to measure learning against a set of published criteria and rubrics, while the formative assessments aim to develop learning through constructive feedback. These forms of assessment are required in all course assessments, aligning with the Rhodes University Policy on Assessment and Student Learning (2019) which promotes the use of transparent assessment criteria that provide an opportunity for discussion and engagement with learning expectations and outcomes. The assessment criteria relevant to the broad learning outcomes on the professional

programme are summarised in Table 9.1, and correspond to related teaching and learning activities and assessment activities. These assessment activities include the following.

Formative assessments:

- **Clinical supervision work** where students meet in pairs with a casework supervisor who reviews client case reports, recorded video extracts of therapy sessions, and assesses live engagements with students during supervision sessions.
- **Written case reports** where students provide detailed case reports of each therapeutic and assessment client assigned to them. These reports are reviewed by supervisors and used to assess professional development on a regular, ongoing basis.
- **Case conference presentations** where each student presents one case where they demonstrate their skills integrating psychological therapies, diagnostics, case formulations and treatment plans, and field questions and feedback from peers and lecturers. These presentations provide an informal opportunity for course co-ordinators to assess students' abilities to present and defend their psychological opinions.

Summative assessments:

- **Coursework written assignments** which students complete throughout the year comprise a psychodiagnostics test, ethics, community psychology and lifespan development essays which assess students' application of psychological theories and theoretical constructs. These assignments count 5% towards year end mark.
- **Oral examinations** where students are required to review case materials from a video, then provide a diagnosis, case formulation and treatment plan within a limited timeframe, and answer relevant questions relating to clinical aspects of the case. The Oral Exams each count 10% towards the students' total year-end mark.
- **Research proposals** are completed in preparation for the minor research dissertation portion of the degree. Proposals are assessed on the quality of the planned research project in terms of coherence of the proposal, appropriate consideration of the context and literature of the topic, clear goals and

appropriate methods to answer the research questions, ethical considerations, constitutionality, style and structure. Proposal marks count 5% towards the student's final year end mark. These proposals form part of a learning-orientated assessment approach which provides students with initial support for writing their summative research dissertations later on.

- **Year-end written examinations** evaluate academic competencies in psychological assessment, psychological therapies and professional practice. Each exam counts 7% towards the final year mark.

Reflecting on this assessment process, there is strong alignment between learning outcomes (guided by HPCSA and SAQA) and these assessment criteria and activities. But one limitation is the extent to which language supports and challenges learning on the MCP programme. The programme specifically targets multilingual students with the intention of training these students to apply therapeutic interventions across a range of contexts, in different languages. Yet students are taught and assessed in English while being encouraged to apply interventions in a range of other languages including isiXhosa and Afrikaans. This places a considerable academic burden on students as they are taught in one language, then grapple with the translation and application of terms and concepts in other languages in client processes, only to have to reintegrate and translate that learning back into English in case supervision sessions, written reports, oral examinations and written examinations. Current assessment techniques do not adequately take this sophisticated task-shifting process into consideration. One consideration would be to include a multilingual component in case supervision where students have the opportunity to formulate casework in Afrikaans or isiXhosa with their supervisor, in alignment with the language of psychotherapy intervention which they are using with that client, and to promote multilingualism in the oral examinations.

Evaluation of the programme

The MCP programme is evaluated regularly, including HPCSA inspections every five years; annual external examiner reports,

and student feedback each term using course evaluation forms. Feedback from the most recent HPCSA inspection reported excellent constructive alignment across our learning outcomes (shaped by HPCSA and SAQA requirements) and our teaching and learning activities, assessment criteria and assessment activities as demonstrated in Table 9.1. Similar feedback was received from our external examiner. Emerging from both these sources, one area to develop was more congruence between the intention to train multicultural practitioners, and the need to teach trainees in ways that support this language development. This feedback aligns closely with the evaluations received by our students and is congruent with my own reflections, illustrating its importance for future curriculum development. The value of reflexivity was highlighted through this evaluation exercise, as an important tool for my own teaching practices - a skill that was developed as a consequence of the professional learning which I obtained through the PGDip.

The learning outcomes, teaching and learning activities, assessment criteria and practices on the MCP programme, are summarised in Table 9.1.

Conclusion

In conclusion, this chapter sought to illustrate how the PGDip in HE, Curriculum Development module facilitated my engagement with HE theories that inform evidence-based practices in curriculum development, and developed my skills in critical reflection of the application of these theories in practice. This combination of theory and reflexive practice equipped me to recognise curriculum as both planned and enacted; as well as being deeply contextually embedded and impacted on by powerful stakeholders across international, national, professional, institutional and student levels. This process challenged me as an educator and curriculum developer to consider how my choices legitimise certain specialist knowledge as credible, expert evidence and other forms of specialist knowledge as unscientific, lacking in evidence, to be minimised, excluded and silenced. The conscious recognition of these choices, and their consequences, allowed me to see how curriculum development choices reproduce

Table 1: Constructive alignment on the Master's in Counselling Psychology programme

Learning Outcomes	Teaching and learning activities	Assessment criteria	Assessment tool / activity
SAQA 1: Competent to apply specialist knowledge applicable to counselling psychology. The course comprised three key coursework modules and a research module with specific learning outcomes in each:		Evidence of an ability to assimilate and apply knowledge to a variety of situations	
MODULE 1: Psychological assessment Knowledge of psychological measurement and psychometric theory Knowledge of a range of psychological issues and problems Competence using ICD and DSM diagnostic systems Ability to conduct a comprehensive intake interview Ability to appropriately select and accurately administer culturally sensitive instruments and norms to assess intellectual, behavioural, emotional, personality, neuropsychological and career functioning. Ability to accurately interpret and integrate data to generate coherent case conceptualisations Ability to formulate useful recommendations Ability to communicate the results and recommendations constructively and accurately Ability to offer a well-supported medico-legal opinion and appropriate expert testimony	Seminars with MS PowerPoint slides and video demonstrations Required readings for self-study and preparation before seminars Practical role plays during class time Casework Clinical supervision	Competently complete at least one adult or child assessment under supervision, which includes conducting a comprehensive intake interview, accurately administering psychometric testing, appropriate application of norms and interpretation of results, diagnosis, case formulation and recommendations, feedback to client. Adequate completion of the end of year examination on psychological assessment	Formative: Clinical supervision progress reports Written case reports Case conference presentation Summative Oral exams End-of-year written exam

Learning Outcomes	Teaching and learning activities	Assessment criteria	Assessment tool / activity
MODULE 2: Psychological therapies Knowledge of the theory and practice of evidence-based models of psychological therapy Ability to formulate and conceptualise cases Ability to plan and implement interventions in varying contexts Demonstrates an appreciation of sociocultural contexts Ability to initiate and sustain mentoring relationships Ability to design and provide psychoeducation, as well as community and public health interventions Ability to facilitate group processes Ability to support and enable vulnerable groups Policy development and programme design Ability to design, manage and evaluate a range of psychologically based programmes in diverse settings and advise on policy Training and Supervision Ability to develop training programmes and to train other practitioners in basic psychological skills and make appropriate use of supervision	Seminars with MS PowerPoint slides and video demonstrations Required readings for self-study and preparation before seminars Practical role plays during class time Group work discussions Casework Clinical supervision	Demonstrates application of appropriate diagnosis, case formulations, psychological therapies, treatment plans to clinical cases, monitored through supervision, case reports, case conference presentations, oral exams and end of year written examination One case conference presentation that demonstrates ability to communicate case conceptualisations in professional manner	Formative: Clinical supervision progress reports Written case reports Case conference presentation Summative Written coursework assignments Oral exams End-of-year written exam

Learning Outcomes	Teaching and learning activities	Assessment criteria	Assessment tool / activity
MODULE 3: Professional practice Knowledge of psychological theories and their application in assessment and intervention Knowledge of the history and values of Counselling Psychology Focus on strengths-based development avoiding excessive focus on pathology. Demonstrates understanding that historical, social and contextual factors influence human development and functioning Knowledge of important features of the South African social contexts, and the principles of social justice Ability to work sensitively with marginalised groups Demonstrates reflectivity during and after professional activity Communicates clearly using verbal and written skills in a professional context Forms and maintains productive and respectful relationships with clients, peers/colleagues, supervisors and professionals from other disciplines. Ability to identify and network with local resources and facilities Ability to refer clients to relevant professionals in a variety of systems Competence in information management Ethics and Legislation:	Seminars with MS PowerPoint slides and video demonstrations Required readings for self-study and preparation before seminars Practical role plays during class time Group work discussions Casework Clinical supervision	Successful implementation of a community psychology intervention programme that takes socio-cultural context and factors adequately into account. Adequate completion of the end of year written exam on psychological therapies Demonstration of a growing counselling psychology professional identity in presentations of case materials at case conferences, engagement with teaching staff, colleagues, clients and supervisors, and take-home written examinations Demonstrated ability to communicate a considered psychological opinion confidently Completion of clinical supervision hours where student demonstrates integration of theory into therapeutic practice and competencies as student psychologist Demonstration of professionalism and ethical conduct in case management	Formative: Clinical supervision progress reports Summative Written coursework assignments Oral exams End-of-year written exam

Learning Outcomes	Teaching and learning activities	Assessment criteria	Assessment tool / activity
Demonstrates advanced knowledge and application of the code of professional ethics of the HPCSA and the Professional Board for Psychology and relevant legislative frameworks Ability to act in accordance with these ethical and legal frameworks and understand limitations and boundaries of own professional competence		Adequate completion of two theoretical assignments that demonstrate the ability to apply relevant, evidence-based theory to the professional practice of counselling psychology Adequate completion of the end of year written exam on professional practice	
SAQA 2: Competent to apply advanced research techniques in the field of counselling psychology. Ability to design, manage and conduct ethical and responsible research, utilising quantitative, qualitative and mixed-methods Contributes to psychological knowledge, theory and practice, To report on such research, and implement the findings of such research in policy and practice	Seminars with MS PowerPoint slides Required readings for self-study and preparation before seminars Research supervision	Preparation of a research proposal and minor dissertation which is appropriate to the field of counselling psychology and demonstrates: Familiarity with relevant literature Appropriate application of methods and techniques of research Appropriate understanding of the topic and significance of findings Is appropriately presented in terms of literary style and presentation	Formative: Research supervision progress reports Summative Research proposal Thesis

social inequalities or move us towards greater transformation and decolonisation of our disciplines. Through this recognition, I was able to draw on the concept of constructive alignment as a tool to critically reflect on these different contextual levels of influence on the MCP programme. In so doing, I was made aware of valuable strengths but also important areas of development in the curriculum which could be changed to improve epistemological access for our students.

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Chapter 10

Addressing a curriculum alignment problem in a Mathematical Programming course: insights from a PGDip (HE) graduate

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Introduction

Pursuing a Postgraduate Diploma in Higher Education (PGDip (HE)) has influenced my teaching career. What I learned on the course has had a significant impact on how I approach curriculum development, teaching and learning and assessment. It has transformed my lecture delivery, examination paper design, and overall perspective on student learning. The PGDip programme has provided me with a robust set of pedagogical tools, a deep understanding of educational theory, and valuable practical insights, all of which have been instrumental in advancing my teaching and learning practices. One significant transformation in my teaching practice post-PGDip has been the adoption of a more interactive and learner-centred approach. Now, at the end of each lecture, I introduce the forthcoming topic and encourage students to read and prepare questions in advance. This strategy not only makes better use of lecture time for dynamic discussions and problem-solving activities but also cultivates a more participatory classroom environment. It promotes a culture of inquiry, keeping students actively involved and eager to learn. Moving beyond

the traditional model of content delivery and course completion, my focus has shifted to deeply understanding student needs. I have grown more patient and open to student inquiries, showing greater sensitivity to their perspectives on various subjects.

My primary goal is to enrich students' educational journey and to adapt to their unique learning requirements. In addition to using simulation software, I have incorporated a variety of technological tools to enhance the teaching and learning of mathematics. For instance, I advocate for the use of interactive online platforms that enable students to interact with mathematical concepts in an engaging manner. These platforms provide simulations, interactive tutorials, and immersive virtual experiences that assist students in visualising and understanding abstract concepts more concretely.

I have enriched my lessons with multimedia resources, including videos, animations, and interactive demonstrations. These resources offer multiple layers of explanation and serve to reinforce learning. For example, to demonstrate geometric transformations, I employ a three-dimensional plot that allows students to observe the behaviour of mathematical functions when various variables are altered. This approach not only clarifies the concepts but also makes the learning process more interactive and impactful.

I have redesigned my assessments to align with the specific learning objectives of the course. This approach moves beyond merely testing students on isolated mathematical equations; instead, it structures assessments to reflect the learning objectives. For instance, rather than having students simply memorise and recall formulas, I craft questions that challenge them to apply these formulas in problem-solving scenarios. Understanding the significance of clear guidance on assessment criteria and expectations, I now ensure that I provide students with detailed information regarding the course sections that will be assessed at the end of the term. This strategy aids students in identifying key areas of focus and comprehending the metrics or criteria by which their performance will be gauged. The PGDip course deserves credit for providing me with a new set of

skills that have greatly enriched the practices that I discuss in this chapter.

This chapter focuses on the design philosophy of the Mathematics Department's undergraduate curriculum, in the context of fostering knowledge transfer and cumulative knowledge building for the second-year mathematical programming (MAM 201) course that I teach. I then focus on the lack of constructive alignment of the mathematical programming curriculum, on the method that I used to teach this course and the evaluation of the method with data collected from students' anonymous responses to an online survey at the end of the course. I provide examples of students' feedback that pointed to lacunae in my teaching methods, and how I used student comments to strengthen the next iterations of the course. To overcome the lacunae, I developed a strategy for teaching this course such that there is alignment between teaching objectives, assessment, and activities. I used this strategy in 2022 to teach the course, and data was collected via an online survey to access my students' responses to the method. The data was analysed and the method points to a promising way to teach the course but requires the Department to put in place additional resources to support the method and our students. I present student assessment results over a three-year period (i.e. 2018, 2019, and 2022) that indicate great improvement in student grades using the new method in 2022. Note that results for the years 2020 and 2021 are not available since it was decided to discontinue the course during the coronavirus disease 2019 (COVID-19) pandemic, the reasons for which are not pertinent to the discussion.

Reflecting on the mathematical programming curriculum

From a pedagogical perspective, a curriculum is the set of processes starting from the design, structuring and implementation of teaching and learning activities. Curriculum brings together the notion of learning objectives, course content, and planned activities for teaching and learning associated with the different ways that would be used to assess students (Young, 2014). A curriculum has a fundamental importance in the

context of higher education. It constitutes a teaching, learning, and assessment guide and it is also a conceptual tool capable of shedding light on major educational innovations (Hassard & Dias, 2013). In all cases, teaching and learning are part of the curriculum and it provides a route through which a lecturer organises the knowledge that they aim to transmit to students. The curriculum defines the "what" - that is, what learners must know and understand to solve problems in each mathematical subject and at every academic level (Niss, 2003). This approach of curriculum design is similar to two philosophical approaches of curriculum design that Toohey (1999) referred to as the performance or systems-based approach and the cognitive approach. These approaches define the aims (or goals) of the course and the lecturer teaches students towards these goals with an emphasis on building students' cognitive abilities such as logical thinking as well as cultivating a research orientation to learning mathematics. The implementation of the "what" is performed by lecturers who use their professional judgement to determine the "how" - that is, how students will achieve the goals of the curriculum through the teaching and learning processes. Mathematics is a field of abstract knowledge built on logical reasoning about concepts such as numbers, figures, patterns and transformations (Dubinsky & McDonald, 2002). Mathematics is distinguished from other sciences by a relation to reality. It is purely intellectual in nature, based on axioms declared to be true or on postulates provisionally accepted. A mathematical statement is generally referred to as a theorem, proposition, lemma, fact or corollary. Each of these statements is considered valid when the formal discourse which establishes its truth respects a certain rational structure called *proof, or logical deductive reasoning (*Stylianides & Stylianides, 2008*)*.

The establishment of links between mathematical concepts and students' daily lives, and the strengthening of problem-solving skills and metacognitive capacities, are strategies which are known to be very effective in alleviating the frustration, undermined motivation and withdrawal from mathematics that students too often experience (Presmeg, 2002). From a theoretical rather than a practical point of view, the establishment of advances in mathematics can be accomplished by defining such

practices as an adequate philosophical understanding on the part of the lecturer as to how mathematics should be taught. For example, the identification of and an emphasis in the curriculum on concepts and procedures that tend to be bottlenecks to student learning of mathematics (Middendorf & Pace, 2004) and threshold concepts (Meyer & Land, 2005), the use of objects that can be manipulated or physical examples, as well as a greater emphasis on and an awareness of the unity and overlap between computer science and mathematics are some of the ways in which the teaching and learning of mathematics can be enhanced. Looking at the objectives of a course in mathematics, it is imperative to find out where students consistently have difficulty. Indeed, since mathematics is inspired by real objects, it follows that there is necessarily in all cases a tangible representation for any given concept, and this seems intuitively obvious in Euclidean geometry (Courant et al., 1996; Antonini, 2019). From a student development perspective, the use of such manipulative objects can help to dilute the abstract coverage of mathematics to reveal its very real relationship to physical reality, thereby making the concepts cognitively more accessible to students whose understanding has not yet reached the maturity required to comprehend its abstract nature.

Research in the field of mathematical education has shown that students who experience the use of concrete material to support the understanding of mathematical concepts perform better than students in the complementary group (Moyer-Packenham et al., 2011). This teaching strategy also has the merit of supporting students with a preference for processing material visually and kinaesthetically, while ensuring the construction of bridges between mathematical concepts and real situations (Nguyen & Cortes, 2013). I concur with the view that "teaching is based on the belief that students learn best when they appropriate knowledge through exploration and active learning" (Nguyen & Cortes, 2013). This means that teaching practice should focus on encouraging students to reflect and justify their reflections instead of memorising and stating facts.

Why include mathematical programming in second-year mathematics?

A mathematical programming course is introduced in the second-year mathematics programme at Rhodes University. This mathematical programming course is required for all students enrolled for a degree in pure mathematics and applied mathematics. It aims to familiarise students with programming mathematical concepts with computers, a tool that is omnipresent in science, in companies and even in education (Misfeldt et al., 2019). Also, this mathematical programming course is a space to prepare students for third-year courses such as numerical analysis, which need programming capabilities and theoretical thinking. Also, the objective of introducing a mathematical programming course in second-year mathematics is to provide the foundations for a solid training in scientific computing. Mathematical programming at second-year mathematics level constitutes a basic training for those preparing for a career as a data scientist or AI (artificial intelligence) scientist. The course is intensive and ambitious; it aims to develop the methods, results, and principles that every mathematician must master to become a data scientist, in accordance with international standards (Beaton, 1996).

The constructive alignment problem

The Mathematical Programming course runs across the whole academic year and each semester is assessed separately. This course requires critical thinking in Applied Mathematics and Computer Science, e.g., algebra, calculus, sequences and series, differential equations, data structure and algorithms, Python programming, etc. Students taking this course come from at least four different departments (i.e., Departments of Mathematics, Physics, Statistics and Computer Science). The Mathematical Programming course is compulsory for students majoring in Pure and Applied Mathematics. The course is optional for students majoring in other subjects, e.g., Computer Science, Physics, and Statistics. Second-year students who will be majoring in Computer Science are required to take a first-year programming course offered by the Department of Computer Science; this

means that these students are knowledgeable about programming which, combined with the first-year Algebra and Calculus courses, provide Computer Science majors with the requisite skills to learn the second-year Mathematical Programming course. The first-year courses on series, sequences and differential equations are not compulsory for Computer Science majors. Therefore, we might have some Computer Science students who do not have the adequate mathematical background to take the Mathematical Programming course to an advanced level. For those majoring in subjects other than Computer Science, there is no equivalent pre-requisite programming course available to them before they can enrol in the Mathematical Programming course in their second year. Note that for this Mathematical Programming course, programming is used as a tool to implement mathematical concepts or theories. The curriculum is designed in such a way that programming is assumed to be known and is not part of the course outcomes but it is part of the teaching and the assessment methods. It is clear that there is a gap in the constructive alignment of the course: there is no alignment between teaching objectives, assessment, and activities (Biggs, 1996). This gap in the curriculum design can impede the building of cumulative knowledge. Some Computer Science students are not strong enough in mathematics while other students may not yet have been exposed to programming; yet, they must sit in the same classroom to follow the Mathematical Programming course which requires a solid mathematical and programming background.

The students are expected to have the prerequisite academic background to be confronted with challenging course content in robust mathematics and programming. The lecturer is not supposed to teach programming, neither is the lecturer supposed to teach mathematics to the students. Instead, the lecturer is required to start the course with real-life problem-solving exercises that need robust thinking skills in programming and mathematics. In practice, however, most of the students expect the lecturer to teach programming, while others expect the lecturer to teach mathematics; neither being the actual curriculum of the course as it was originally designed.

Standard teaching approach and student failure

As noted above, the goal of this course is not to teach programming or mathematics, but to teach students how to solve real-world problems using mathematics and computers. This means that students are expected to be strong enough in Mathematics and Computer Science. The teaching method which I have adopted is to provide a brief introduction to programming and a refresher on standard algebra during the first and second lectures. I emphasise to the students that the introductory lessons cover basic concepts and that they are responsible for acquiring more advanced skills in programming and algebra independently. From the third lecture, I start providing solid and challenging exercises that I solve in the classroom using mathematics and programming. Only then can I begin to address the different levels of ability and the intersections of the disciplinary knowledge in the classroom. Individual progress is tracked by providing students with a weekly problem set, and I expect each student to submit their solutions as part of their summative assessments that I use to assess their learning at the end of the year. I also compare the performance of students on problem sets to that of their peers who enter the course with different levels of disciplinary knowledge. At the end of each week, I provide the solution to the problem sets, and encourage students to consult me in case they find any challenges in understanding the solution to a problem set.

Most of the students found the materials and the approach to the course uncomfortable to follow. This is because of the poor programming and mathematics skills of students majoring in Mathematics and Computer Science, respectively. I explained to the students why my approach or the materials for the course are relevant and indispensable, encouraging them to remain with the approach and that the learning outcomes will be to their benefit. Even after motivating them, I still had a lot of complaints; mostly from students without any programming background, as shown by the online surveys. I evaluated the course at the end of the first semester. In this online survey, eight students out of thirty-eight students responded to the survey questions. We see from this data that there are three categories of students in this class:

1. The first category represents approximately 80% of students who are comfortable with mathematics but are finding the programming aspect of the course very challenging. The majority of these students felt that I expected them to have a deep knowledge of programming. For example, one said "*... We were not taught how to code but rather reminded of the maths concepts we've already done and expected to know how to code them.*" This concern, however, seemed to be largely experienced by students who had not completed prior courses in programming and therefore could not follow the content being introduced.
2. The second category shows about 18% of students who are comfortable in mathematics and programming. These students did not have any complaints, but they instead congratulated me for the good teaching practice. This is evident in the following: "*Marcel is a great lecturer, he made me to be more interested in the mathematical aspect of coding seeing that computer science gets more theoretical and I'm more of a practical student. Hoping that I get to take his machine learning course in post-grad*".
3. In the third category, about 2% are students who are finding mathematics a bit challenging but are also somewhat comfortable with the programming. This category of students required that I should provide them with more lectures to put them on the right level: "*We are okay when the theory behind the coding is explained, more time is needed for this course so that we can discuss both the programming and mathematical aspect*" or "*It's just important for our class to have programming skills hence I think the approach to mathematical programming should be similar to that of computer science. More lectures per week could help.*"

The first category of students is mostly those majoring in Mathematics, Physics, and Statistics. The second category is probably those who are majoring in Computer Science and were exposed to sequences, series, and differential equation courses in their first-year course, and the third category are students majoring in Computer Science who did not study sequences, series, and differential equation courses but took

only Algebra and Calculus during their first-year course. This analysis acknowledges a significant limitation in the survey response rate of 21.1% (8 out of 38 students). While this presents challenges for statistical reliability, including a larger margin of error and disproportionate weight of individual responses, the findings align with classroom observations and are supported by student performance data. As shown in Figures 10.4 and 10.5, the academic performance records for 2018 and 2019 demonstrate consistently low achievement patterns, with several students receiving scores of zero, attributable to non-participation in formative assessments.

Adapting to students' learning: teaching approach and student failure

During the second semester of the same year, in reaction to the difficulties outlined above, I completely changed my approach with a focus on basic computer programming with very little mathematics. My teaching goal that semester was to focus mainly the basics of programming since over 80% of the class struggled with that aspect of the course. Solving problems relied solely on understanding basic programming applied to very simple mathematical methods. My goal was to increase the programming ability of the majority of the students in class to a more acceptable level of competence before embarking on difficult sets of problems. But this method had many drawbacks when examining the intersections of disciplinary knowledge in the classroom, as we shall see below. At the end of the semester, I administered an *"End of Semester"* questionnaire about the new approach and content of the course. Out of the thirty-eight students enrolled in the course, thirteen responded to the questionnaire.

From the questionnaire responses, I noted the following:

1. A few Computer Science students did not find the course challenging. This is because most of the focus this semester was on basic programming for which these students already had a strong background. For example, one said: "*I was a computer science student and I felt that it was easier this semester compared to the last. I remember there was one particularly challenging practice, I received a 67% I believe*" and another said

"*Too easy.... I did not need much application, maybe it is because I am a computer science student as well*".

2. Most students majoring in Mathematics, Physics, and Statistics found the approach and content of the course very interesting as they were able to understand. The focus on programming equipped these students with solid programming background that was needed to fill in the gaps. This is noted in the following remarks: "*The lectures were great this term compared to last semester. The content (problem set work) was explained clearly in class and that helped. And we were given enough time to complete the problem sets.*" and "*This term I understood Python better. Last term I was all over the place and had not much of an idea what was going on in class. Everything seemed so advance especially being someone who has never programmed before.*"
3. On the other hand, some of the students majoring in Mathematics, Physics, and Statistics still encountered difficulties in understanding the programming. For example, a student stated that: "*I did a little more, but unfortunately only to some extent. I really have no interest in it and no background. So even if things were simplified, I did not find it more helpful or understandable as a lecturer would want*".

Upon reflection it is evident that this approach did not work as well as I expected. The mathematical aspect of the course was neglected to focus mostly on programming. This means that students' mathematical knowledge did not meet the expected international standard for their educational level. The students majoring in Computer Science did not benefit much since they were already exposed to the programming aspect in a first-year course. This was clearly visible during lectures as most of the Computer Science students were absent from class. It was evident that I needed to develop an alternative teaching approach that benefited both students no matter their background.

In the following section, I present and analyse the impact of an alternative teaching approach that I am proposing for the course. To evaluate the approach, I collected data from a survey offered to my students, then analysed the data while correlating the results of the analysis with students' assessment results.

I also compared students' results with those of students from previous years.

The experiment

From the above description, I have recognised that there are three groups of students with different levels of knowledge and competence and who therefore experience different difficulties. These students must share the same classroom to study the second-year mathematical programming course. I have identified the gaps in skills amongst these students and have come to conclude that the students will need different focused assistance from the lecturer - at least at the beginning of the course. In this section, I discuss an alternative approach that can be used to fill the gaps in the knowledge and competencies needed by these students to sit in the same classroom and follow the mathematical programming course. The approach is a practical simulation of Vygotsky's theory of Cognitive Development and the Zone of Proximal Development (ZPD), (Bruner, 1984). In this sense, I see the ZPD as very important since it allows me to know what each group of students can achieve with or without my guidance. It is evident that the ZPD is different for each group as shown in **Table 10.1.**

Table 10.1: Example of the ZPD

	What is known	What is unknown
Category 1	Mathematics: Algebra, Calculus, Analysis, Series, Sequences	Basic programming and Python
Category 2	Mathematics: Algebra, Calculus, Analysis, Basic programming and Python	Robust mathematical programming with Python
Category 3	Basic programming and Python	Mathematics: Analysis,

In Table 10.1, the "What is unknown" column denotes the skills that each category of students can master with the assistance of the lecturer. The lecturer must provide an appropriate teaching and learning strategy so that each category of students has the

opportunity to achieve the same level of knowledge before the core curriculum of the course is taught. As seen in Table 10.1, Category 1 and Category 3 need a specific aim at least at the beginning of learning before they can meet those in Category 2 to take the course. Category 1 students will need special assistance in basic programming and Python. Those in Category 3 need basic knowledge in Mathematical Analysis, Series, and Sequences. The students in Category 2 are at the appropriate level of knowledge and skills to take the course. To aid the learning process of the different categories of students to move through the ZPD, I am proposing the following algorithm:

1. Split the students into three different categories and assign each category two or three knowledgeable tutors including myself.
2. Split each category into subgroups which will facilitate social interactions with the tutors. Prepare supportive materials which includes theoretical and practical problem sets and tutorials. This will enable and enhance the problem-solving skills of the students as they move through the ZPD.
3. Merge the different categories when I am convinced that the students have integrated the same level of knowledge across the two different fields and can now work together.

One of the most challenging tasks of the teaching strategy is to identify when the merging of the students is possible. What will be the activities that will measure that the students are ready to be merged? Do these activities include having the students write many formative tests? If yes, how should these tests be designed to facilitate the development of equity amongst the different categories?

Description of the teaching and learning model

Figure 10.1 depicts a detailed schematic description of the model. The model is designed into three different levels:

1. **Level 1 or splitting:** On the first day of class, the students are split according to the degree for which they are majoring. Mathematics majors are put into Category 1, Computer Science majors into Category 2, while those majoring in any

subject other than Mathematics or Computer Science are put into Category 3. Categories 1 and 3 are of main concern while Category 2 as stated above have the required knowledge to take the course - students in this category do not have any problems with the course. To balance the number of students in Categories 1 and 3, students from Category 2 are placed in the Category 1 and Category 3 groups based on their own assessment of which group would enable them to gain the most benefit from the course (the red dotted line in Figure 10.1 indicates the sharing). This categorisation enables us to work with two groups of students. Note that the idea of moving Category 2 students into Categories 1 and 3 is to facilitate social interaction in the learning process (level 2) given that the tutors and the lecturer may not have enough time to interact with each student. Also, the sharing might stimulate the learning process as this will allow knowledgeable students in each category to help the less-knowledgeable students. Level L1 in Figure 10.1 presents a schematic view of the splitting and sharing that I am proposing. Figure 10.2 shows the initial and terminal phases of this level; in the beginning, students in Categories 1 and 2 shared some common mathematics knowledge. On the other hand, those in Categories 2 and 3 shared common knowledge in the field of programming, while those in Category 3 did not share any common knowledge with those in Category 1. At the end of this level, we see that we have two categories instead of three, and the two categories share a common piece of knowledge (Mathematics and Programming). Making sure that each category shares a common set of knowledge is fundamental to the learning process as stated above and will also allow me to further assess the level of learned skill sets while ensuring that equity is maintained.

2. **Level 2 or working level:** This is the main level where teaching and learning happen. This level (L2, see Figure 10.1) consists of helping each category of students to engage in the ZPD by teaching and encouraging students to solve problems relevant to each category. At this level students also engage in group work. Each group is assigned a knowledgeable tutor who helps the students in problem-solving and tutorials.

The interaction at this level spans 8 or 10 weeks and must be concluded even if the formative test scores from students are not satisfactory. Note that this course takes place throughout the year, so a maximum of 10 weeks is reasonable to start the course content in order to meet the timeframe necessary to cover the curriculum of the course. Figure 10.3 shows the various stages at this level. The initial stage in Figure 10.3 marks the start of this level where the two categories of students share a degree of common knowledge. After teaching and learning that includes problem-solving and tutorials, we make a judgement about whether the performance of the students is at an acceptable level. We then remove some students from one category and place them with students in another category (the dotted blue lines in Figure 10.1 indicate the distribution). This distribution shows that these students can share the same classroom with their peers without difficulty in Mathematics and/or Programming. We evaluate this from feedback and interaction during teaching. If the new distribution of students goes well without any student complaints, then we assess the students based on their new categories. This assessment is carried out in the form of multiple formative tests (see Figure 10.1). If our model is appropriate, then the tests will show that the amount of shareable knowledge amongst the two categories has become very large (see Figure 10.3).

3. **Level 3 or merging:** We see from Figure 10.3 that after some number of tests, the overlapping zone (sharable knowledge) from the two categories becomes wider and at some point, the two categories become a unique category. This is the merging point where these students have integrated the same level of knowledge across the two different fields and are now prepared to follow the mathematical programming course in the same lecture room.

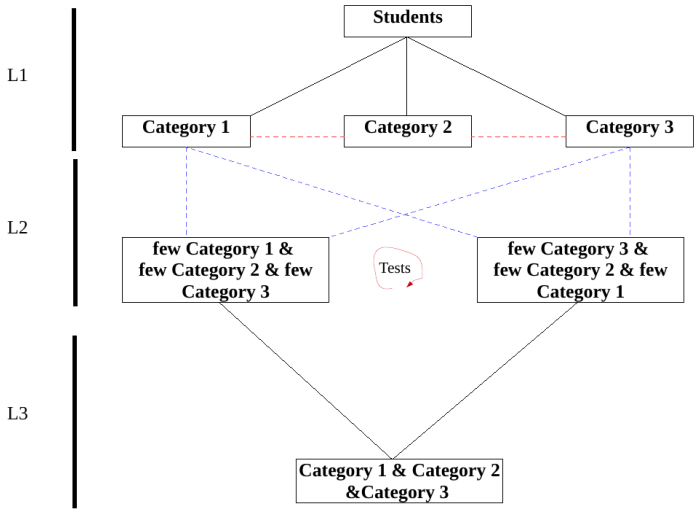

Figure 10.1: Schematics description of the learning model

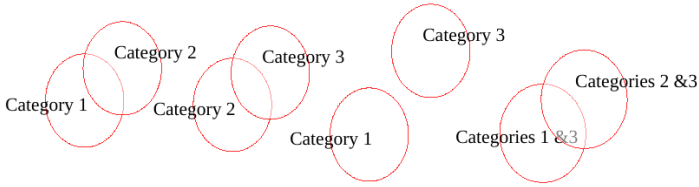

Figure 10.2: From the beginning to the end of L1 as shown in Figure 10.1

Figure 10.3: From the beginning to the end of L2 as shown in Figure 10.1.

Results

Of the 63 students who took the course during the curriculum experiment, Table 10.2 shows the number of students in each of the categories after splitting the students.

Table 10.2: Number of students per category after splitting

	Number of students
Category 1	34
Category 2	24
Category 3	5

We note in Table 10.2 that 24 students out of 63 students have the right level of proficiency to take the mathematical programming course. About thirty-four students are beginners in programming and five students do not have a good background in mathematics to take the course. As we were only two lecturers to teach the course, we had to divide the students into only two categories. We asked Category 2 students to either choose Category 1 or Category 3. Of the twenty-four students in Category 2, seven students joined Category 1 and seventeen students joined Category 3. The total number of students in Categories 1 and 2 becomes 41 and the total number of students in Categories 3 and 2 becomes 22 as shown in *Table 10.3*.

Table 10.3: Number of students per category merging the three categories into two categories.

	Number of students
Category 1 & 3	41
Category 3 & 2	22

Since the course runs throughout the academic year, we kept the split in the first semester where students in Categories 1 and 3 learned Python programming from moderate to more advanced levels, while those in Categories 3 and 2 learned solid mathematics concepts associated with programming. The problem sets were different for each category. At the end of this semester, I

administered an online "End of Semester" survey about the new approach, the course content and the different problem sets. It is noted that out of the sixty-three students enrolled in the course, fourteen responded to the survey. Out of the fourteen students who responded to the survey, ten from Categories 1 and 3, and four from Categories 3 and 2. From the questionnaire responses, I noted the following responses to the survey question:

Most students in Category 1 found the splitting, and content of the course very interesting as they were able to understand. The focus on programming equipped these students with a solid programming background that was needed to fill in the gaps. Two students from Category 1 said: "Please don't stop splitting the groups, those work wonders and introduce students to programming at the right pace.." and "math programming should made a necessity for mam 2 thus math students should do programming first year."

1. The one student in Category 3 said: "Yes, Python was easy but the concepts were difficult."
2. On the other hand, some of the students in Categories 3 and 2 said: "No, this time the maths was easier than the coding" and "No comment, good work Dr. Marcel"

The responses to the survey show that the splitting method is useful in enabling students with different levels of preparedness for the course, to meet its outcomes. Most students were satisfied with the approach. The students' end-of-semester grades in Figure 10.4 confirms the importance of the approach. The 2022 grades (red-curve) are compared to that of 2018 (black-curve) and 2019 (blue-curve). We see an increase in student performance in 2022. The model followed in the curriculum experiment appears to have eliminated the group of students who simply refused to attend lectures and were assigned zero. This is noted from flat zero blue lines that are no longer flat in 2022.

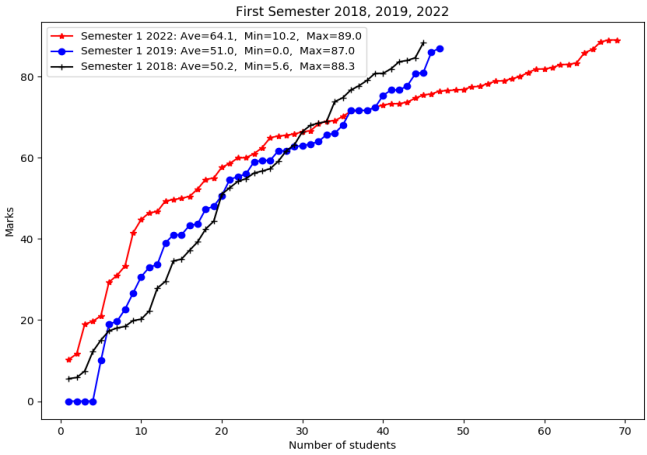

Figure 10.4: First semester mathematical programming grade for 2018, 2019, 2022

The class was merged in the second semester of 2022. We had no complaints from our students and Figure 10.5 shows their class grades at the end of the second semester compared to the second semester of 2018 and 2019. I noticed a huge improvement.

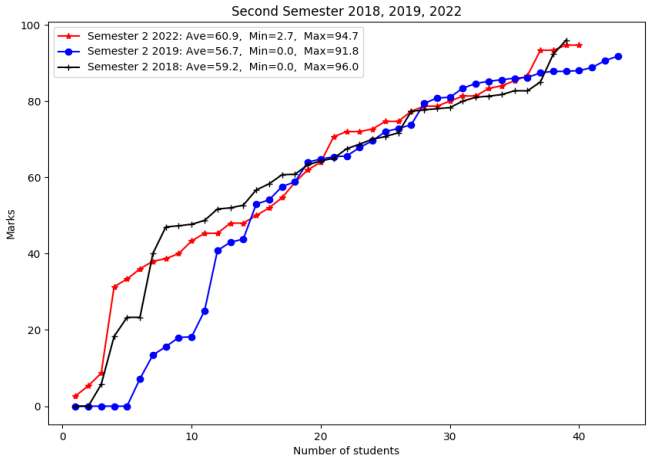

Figure 10.5: Second semester mathematical programming grade for 2018, 2019, 2022

Conclusion

Teaching methods used to teach computational mathematics should allow the greatest number of students to be able to acquire skills, curiosity, and the ability to be able to improve subsequently in each domain. I presented and discussed a teaching-learning model for a mathematical programming course introduced in the second-year mathematics curriculum. The experiment is designed to facilitate the effective movement of students within and beyond their initial ZPD. I implemented the model and provided quantitative feedback of its effectiveness. The results show that the method is effective but obliges the Department to add an additional one-hour lecture time to the course.

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Part IV

Postgraduate Supervision and Development

Chapter 11

Developing an "internal research supervisor": Reflections on the pedagogy of postgraduate research supervision in the helping professions

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Introduction

What is an internal supervisor? And how is this clinical concept relevant to postgraduate research supervision? The internal supervisor is a concept developed by Patrick Casement (1985; 1990) used in clinical therapeutic supervision to refer to the development of the reflective capacity of trainees in the helping professions. In the helping professions, such as psychology and social work, establishing a secure helping relationship is a central part of the helping professional's competency, and facilitates the helping process. The core of the helping

professions is a relational process that serves as an incubator for the client's development (Skovholt, 2005). The development of an internal supervisor with self-reflective capacity is crucial for trainees in helping professions, as this will serve to guide them in their independent practice with clients. This is cultivated by supervisors through their own relationship with students, and thus supervisors also draw on their own internal supervisors to assist them in the supervision process. This chapter argues that the clinical supervision insights and capacities of academic staff in the helping professions are a useful adjunct to their research supervision competencies. These capacities can be extended into the research context and aligned with relational models of research supervision to enrich the supervisory relationship in a postgraduate research context, in the helping professions and beyond.

Through extending the concept of an "internal supervisor" to the postgraduate research supervision relationship, we provide insights into strengthening reflective supervision capacity in the PGDip (HE) (hereafter the PGDip). We argue that the Strengthening Postgraduate Supervision (SPS) course can be used to facilitate the development of an "internal research supervisor" who can observe the supervision process and how it unfolds in a more sensitive, complex, and theoretically informed manner. This enhances the development of reflective capacity of the supervisor and allows supervisors to draw from a range of supervision approaches and techniques to foster a unique research relationship with each student, whilst adhering to research goals and objectives, thereby enhancing research processes and outcomes. The chapter considers ways of incorporating the knowledge and reflective techniques learnt in the SPS course within the supervisory process, to ensure that an individualised and developmental environment is created for each student. This is crucial in developing the researcher-practitioner identity of professionals and strengthening understanding of the role of research in professional practice, as well as building supervision skills and capacities of research supervisors in the helping professions. Beyond this, the concept of an internal supervisor is also useful to those outside of the helping professions, to those

who can utilise insights from relational models of supervision to enhance the supervision process.

The supervisory context

In this section, we reflect on the broader postgraduate research supervision context, to illustrate how we as supervisors have integrated our theoretical understandings of research supervision within a specific higher education and disciplinary milieu. The academic landscape is faced with many contemporary realities. Higher education is emphasised by the neo-liberal paradigm and as Singh (2017:55) explains, "higher education is part of the knowledge economy, a producer of knowledge and skills for economic competitiveness". Thus, across the world, universities face the challenge of dealing with the pressures of increased student enrolments, whilst balancing the need to maintain the quality of education, ensure adequate throughput, meet the globally competitive standards of higher education, and contribute to the growth of knowledge economies (Bitzer & Albertyn, 2011). To succeed in the current climate of global socio-economic change, universities must seriously consider and implement strategies to ensure growth and development in postgraduate research (McCallin & Nayar, 2012).

This fundamental shift in understanding of what higher education institutions are about has had many consequences for all the role players involved in higher education. Academics must review traditional notions of higher education and postgraduate supervision attributable to the massification of higher education (Frick et al., 2014). Furthermore, as the "mantra of publish or perish" becomes entrenched, so it becomes essential that academics engage in a culture of research. These kinds of broader institutional changes have shifted supervision relationships, models and learning experiences, in ways that will have an impact on the quality of research products and research learning processes, and subsequent levels of research in higher education and the "real world."

The research supervision of postgraduate students is a key responsibility of academics in any research-intensive university (Blose et al., 2021). The increasing socio-economic pressures and

demands in the higher education landscape require academics to successfully supervise larger numbers of postgraduate research students. Along with increasing student numbers, requirements to conduct research and publish, research supervision is often viewed as another responsibility for the often overworked and overstretched academic. Yet, the importance of the supervisory relationship should never be underestimated in the research process. Furthermore, the pedagogical approach of the supervisor is a significantly influencing factor for a successful outcome of the research process (Van Biljon & de Villiers, 2013). This supports the growing emphasis on supervisory practices at universities.

When considering the context in which we supervise, we need to be aware of many factors which are likely to influence the supervisory process. Frick et al. (2014) question how one can push and challenge the boundaries of postgraduate supervision. Supervision boundaries are still governed by so many variables including international and national factors, geographic, cultural, institutional, and personal aspects. These authors compare how academic boundaries are like national boundaries in that they also colonise and govern the nature of research that is undertaken.

Since the implementation of the Higher Education Policy Framework (DHET, 2019), postgraduate supervision has gained significance within the academic sphere. South Africa seeks to increase its enrolment of postgraduate students to compete more meaningfully in the global knowledge economy. The National Development Plan (NPC, 2014) addresses the issues of doctorate throughput and highlights the need for South Africa to produce more than 5,000 graduates per year, with a strong proportion of these graduates needing to be from the Science, Engineering and Technology Faculties. Furthermore, 75% of academic staff at universities should have PhDs and 25% of university enrolment should be postgraduate. To accomplish these targets, universities need to have an embedded culture of research and develop centres of excellence (NPC, 2014). Various national strategies and funding initiatives have been linked to the fulfilment of the National Development Plan. One such initiative focused on improving the academic qualifications of academic staff. The universities have had to comply with the Higher Education Act No.

101 of 1997 (RSA, 1997) which was recently amended in the Higher Education Amendment Act No. 6 of 2016 (RSA, 2016). Winberg et al. (2015) note that the South African higher education system has experienced substantial growth in postgraduate enrolments in the years following the advent of democracy. However, the Council for Higher Education records that while there has been an exponential growth in applications, the number of graduations has remained low (Council for Higher Education, 2009). This disparity has raised numerous questions for the academic sector, which need to be explored. Efforts to increase the number of postgraduate students have been hampered by numerous constraints and it is important to understand what the factors are that contribute to these low throughput rates.

One cannot dispute that the history of the South African academic landscape changed in October 2015 when large numbers of students protested the increase in fees and the #FeesMustFall movement was birthed (Booysen, 2016). The need for inclusive and participatory learning environments was highlighted as a key concern, requiring supervisors to be more reflective and aware of the power relationships in supervision. Failure to acknowledge what is happening on a macro level and only after focusing on and maintaining our own current practices, may result in inadvertently perpetuating the status quo. The #FeesMustFall movement highlighted the levels of social exclusion which are still occurring at our universities decades after political freedom was achieved.

Higher education has traditionally been elitist and was reserved for specific sectors of society: those who were perceived to be bright and possibly for those who had greater opportunity to access (Bozalek & Boughey, 2012). Despite changes in higher education policy over the last two decades and the move to promote more inclusive educational opportunities for students from all racial groups, Bozalek & Boughey (2012) highlight the disjuncture that still exists. These authors argue that current education practices and policies still benefit some and harm others and that the notion of social justice in the higher education system needs to be questioned. We cannot ignore that overcoming the legacy of our discriminatory past is likely to be a lengthy and

complex process as the fabric of a discriminatory society are slowly unwoven. Winberg et al. (2015) argue that academics need to be sufficiently aware of how the current education system, which is still trying to address problems from the past, does not adequately prepare students for Higher Education. They explain how financial disadvantage, academic under-preparedness and under-performance form part of a vicious cycle which prohibits students from understanding the "cultural capital" required to ensure academic success. McKenna (2010) speaks about "cracking the code" of academic literacy and challenges how academics and supervisors often fail to help our students understand what is required from them in higher education. Academics cannot therefore embrace a "one size fits all" approach to supervision as we need to examine what the experiences, barriers and challenges are of our students so that we can appropriately assist them. This situation calls on us to examine ourselves and to see in which ways we, as supervisors, promote social exclusion and to instead ensure that our supervisory practices promote creative learning opportunities for students.

Grant (2003) suggests that there are multiple layers to the relationship between the student and supervisor and these include institutional expectations and discipline-specific requirements. Pressures placed on universities means that they are increasing their targets for postgraduate students and the obvious consequence is that academics have more postgraduate students to supervise. Winberg et al. (2015) believe that the increasing "pile up effect" of the growing enrolments means that academics are burdened with unrealistically high numbers of postgraduate students to supervise. To meet these increasing demands, Frick et al. (2011) suggest that academics should engage with more alternative approaches to postgraduate supervision and challenge the traditional approaches which are time consuming and not necessarily all that developmental.

Supervisors need to be aware of all aspects of the academic environment that may influence the supervisory process. When reviewing how we supervise, we need to look beyond our candidates, ourselves as supervisors and include the context in which supervision occurs, not only institutional context but

also the societal context. Colonialism and apartheid have left endemic scars on our society. Institutional, relational, individual and knowledge boundaries need to be reviewed and realigned to meet the demands of the diverse student body (Frick et al., 2014). Because of the increase in international and interdisciplinary research, universities and supervisors need to become more sensitive to the needs of their students. For instance, many international students may have specific challenges which include the up-front fees required by many universities, obtaining their student visas in time before classes begin and the lack of family and social support in a foreign country. If we are not aware of the structural challenges that our students face, whether they are international or local, we shall not be able to effectively help them to become independent researchers. An approachable and supportive supervisor can have an indelible influence in helping students to overcome many practical barriers, whether it be through linking students with appropriate resources or creating a learning environment that is respectful and a place where they can feel that they belong. Andriopoulou and Prowse (2020) advocate that the supervisory relationship extends beyond developing the student's educational and research needs and often includes a level of pastoral care and support.

The pedagogy of postgraduate research supervision

Like their international counterparts, universities in South Africa have a strong emphasis on research outputs and the increased enrolment of postgraduate students. Supervisors in South Africa face ever-increasing pressure to support postgraduate students in the timeous completion of their research. While a discussion of the South African context provides the point of departure for our discussion of postgraduate supervision in this chapter, the challenge of managing growing numbers of students, and the resultant pressure on supervisors is a widespread global issue. As a result, increased attention has been afforded to pedagogies of effective supervision and supervision practices have come under greater scrutiny.

With the substantial social and economic implications of unsuccessful completion, there has been increased focus

on postgraduate supervision practices. Supervision has been identified as a fundamental factor in the success of postgraduate students (Van Biljon & de Villiers, 2013). Many developed countries provide formalised university-wide supervisory training to new supervisors, followed by in-house progressive training over extended periods of time (Sidhu et al., 2014). However, this is often not the predominant status in many South African universities, where new supervisors are often left to draw on their own experiences of supervision and research, with the assumption made that one can supervise research if one can conduct research (Blose et al., 2021). Realising the need to better equip supervisors, some universities have incorporated more formal training programmes for academics. The inclusion of the SPS course presented at Wits University as a PGDip elective is one example of this, which has been implemented in South Africa. This course examines alternative supervision models, thereby introducing academics to the pedagogy of supervision and the variety of different approaches proposed. This serves a significant role in connecting the research experiences of supervisors and understanding their role as supervisors with different conceptual frameworks. Mechanisms that introduce supervisors to using alternative approaches, as well as the different forms of integration that may be possible, may provide a way of improving the effectiveness of supervision with a diverse student base across a variety of contexts. Manathunga and Goozée (2007) suggest that many supervisors often repeat the master/apprentice approach to supervision which they experienced as a student. Moreover, Lee (2007) emphasises how the untrained supervisor will repeat or avoid uncritically repeating the way they were supervised. Not knowing differently, supervisors often replicate their own experiences of supervision with their supervisees, without optimising the pedagogic value of supervision and understanding the range of supervision approaches that exist. Equipping academics with the necessary knowledge and skills for effective supervisory processes is an essential responsibility of each university (Blose et al., 2021). While there are overarching commonalities at different year levels, each discipline also has its own unique standards and set of expectations around postgraduate research and supervision. Often these are discovered

experientially by supervisors as they engage in the supervision process as students and academics.

These elements can be developed further if supervisors become more aware of the pedagogic aspects of supervision. Wisker and Robinson (2012) identify potential areas where problems in supervision may arise; namely, the learning process (how the student is engaging with the learning process), personal and professional (how the student maintains not only the supervisory relationship but also all other relationships (personal and professional) in their life and institutional (adhering and negotiating the rules of the educational context of the institution). When managing the supervisory process, one needs to be aware of potential problems that may arise at all levels.

Developing the capacity to conduct postgraduate research is therefore an extraordinarily complex form of learning, which also has unique dimensions in comparison to other forms of learning. The supervisory relationship is one that is not always straightforward (Wisker & Robinson, 2012) and often requires deep reflection from the supervisor and the supervisee. As Grant (2003:175) explains, "Good supervision is central to successful graduate research". For "good" supervision to occur, the blend of pedagogical and personal relationships skills needs to be understood. Grant (2003) challenges the supervisor to engage with the pedagogy of supervision and to question the notion of expert and novice. Although the supervisory relationship can be fraught with many complexities, the ultimate objective of the supervisory process is to facilitate the student's growth so that they can transform into an independent researcher.

Johnson et al. (2000) believe that postgraduate supervision processes are more "private" than any other form of teaching and learning, and as a result that pedagogic principles have remained unscrutinised and unquestioned. The development of the pedagogy of supervision is crucial to developing skilled supervisors. Supervision of research has many facets and different models have been proposed that address the role of the supervisor in relation to the supervisee. Variations of supervisory practices in these models often emerge from the supervisor's own notions of research and its purpose (Qureshi & Vazir, 2016).

Thus, each model emphasises distinct aspects of the supervision experience and this is a critical component of the PGDip (HE). Drawing from the knowledge and insight gained during our own learning process, we reflect on the role of the course in enhancing our own supervision practice, specifically within the context of postgraduate research supervision in helping professions.

Interfaces of research supervision and helping professions

Our experience of postgraduate supervision draws from primarily supervising a particular kind of student, specifically within the helping professions of Social Work and Psychology at Honours, Master's and PhD levels. Supervision is embedded in the helping professions and is one of the processes through which students learn and find support in the work that they do. Therefore, the concept of supervision is an integral part of professional development. Postgraduate students in the helping professions are faced with the Herculean task of navigating the intensive emotional demands and challenges of their own development as emerging professionals, while still being required to complete a research project within a limited period.

In social work and psychology, students complete a research project at Honours level, which constitutes about 25% or more of their degrees. At Master's level, the research thesis constitutes 50% of professional degrees. Despite the sizeable proportion of marks allotted to research in these disciplines, the primary emphasis in professional postgraduate training programmes is on fostering clinical expertise. In both professions, students are primarily trained for developing their professional skills, and the development of research competence, while important, is not the most significant consideration of professional training. Once selected into a professional programme, students are often highly motivated to practice as helping professionals and develop their professional identity. Because of the extensive emotional resources that this requires, they often relegate research to the periphery of their focus while studying. This sets up an artificial distinction and tension between practice and research. However, many professional programmes have increasingly moved away

from an exclusive practitioner model in favour of training researcher-practitioners. This has required supervisors to consider and demonstrate the value of research for therapeutic practice work and promote research-driven praxis. This has also necessitated the development of creative ways of finding dynamic intersections between the two.

The Strengthening Postgraduate Supervision course

We found that in-depth theoretical grounding required to reflexively engage with and draw from different supervision models as a specific contribution that the PGDip Strengthening Postgraduate Supervision (SPS) module offers to supervisors, which is not currently provided by other supervision guidelines and offerings in higher education contexts. As supervisors in the helping professions, we particularly engage with the intersections of theoretical models of supervision with our development as supervisors of postgraduate students in the helping professions.

With funding from the Dutch government through collaboration between NUFFIC (Netherlands Organization for Internationalization in Education) and researchers from various South African tertiary institutions, the SPS course was developed in response to the need to improve supervision capacity (Maistry, 2017). It has subsequently been offered to staff at numerous South African universities. The SPS course is an intensive and engaging 30-credit short course, which at Wits University is included as an elective in the Postgraduate Diploma in in Higher Education. This chapter's authors attended the course as part of the PGDip (HE). We were already established academics and experienced supervisors, each with 20 years of professional and academic experience as lecturers at Wits, when completing this course. We had each supervised numerous students in their research and therapeutic clinical work in the MA Community-Counselling and MA Occupational Social Work programmes, respectively. Both programmes carry a professional accreditation and lead to professional registrations (as counselling psychologists and occupational social workers). Both require compulsory coursework and practical clinical work to be completed, along with a research report. Though we had previously successfully supervised many

students for research in these programmes, we felt that we gained immensely from the course, in that it consolidated our skills in a unique way. Its comprehensive discussion of the different facets of supervision was integral to strengthening the meaning that we derived from our own supervision experiences, and further enhancing our existing skills. This led us to insights in how we could extend the clinical concept of an internal supervisor in therapeutic supervision into the postgraduate research supervision context.

Of value in facilitating our understanding of supervision was the theoretical knowledge on supervision models provided in the course. In particular, the discussion of different models of research supervision was a theoretical area of supervision that was developed in the course and that we did not have prior knowledge of. This offered us a way of integrating our supervision experiences as students and supervisors within a sound conceptual framework that we had not previously encountered. Various models of supervision exist in the literature (Qureshi & Vazir, 2016). Five models of supervision were proposed and discussed in the SPS course. These models are summarised in Table 11.1, drawn from Lee (2007; 2008).

Table 11.1: Summary of models

Concept of research supervision held by supervisor	Most prominent activity	Knowledge and skills needed	Student reaction
Functional	Rational movement through tasks	Directing, project management	Organised Obedience Efficient
Enculturation	Gatekeeping	Diagnosis of deficiencies to be remedied Nurturing Disciplinary insight	Apprenticeship Role modelling
Critical Thinking	Evaluation Challenge	Argument Gently Socratic or constructive controversy	Constant inquiry Curiosity Fight or flight

Concept of research supervision held by supervisor	Most prominent activity	Knowledge and skills needed	Student reaction
Empowerment	Mentoring and Supporting student in constructing knowledge	Facilitation Analysis and reflection Capacity-building	Personal growth Reframing knowledge Self-confidence
Relational	Supervising according to experience Relationship-building	Emotional intelligence A range of experiences to draw from Interpersonal competence Relational skills Insight	Emotional intelligence Personal awareness Relational competence

In this section, we consider the alignment of supervision models with disciplinary norms, supervisor characteristics and student needs, and explore how supervision competence can be facilitated by enhancing existing supervision programmes. We briefly expand on these models in Table 11.1 before we reflect on them in relation to our own disciplines and supervision approaches. The functional model has a primary focus on the rational progression of the student through a series of defined tasks. The supervisor is required to be more directive and organised, and to manage the student's progression in defined time frames. The supervisory role is more managerial in nature and focused on the successful completion of pragmatic tasks that are broken down into smaller components. The directive nature of this model necessitates an elevated level of compliance from the student, as there may be little room to challenge the nature of the tasks or sequence of events (Lee, 2007). Some students may thrive on the inherent logic and organisation of this model and may particularly respond if they have a need for external structure and are goal-oriented. This model may especially suit disciplines that place a high value on logic and large research projects in which supervisors are lead investigators directing a series of specific well-defined projects.

The enculturation model has a primary focus on gatekeeping, in which the supervisor has privileged expertise and access to disciplinary norms and standards. The supervisor guides the student as an apprentice, who learns through guidance, role modelling, nurturing, and addressing deficits (Lee, 2007). Here, the supervisor actively fosters access to a disciplinary culture, and guides the student along the path to conducting research in a manner that meets the specifications of a discipline. The supervisor's position and role are key to unlocking access to disciplinary knowledge and expectations and decoding acceptable ways of being and doing through the lens of the discipline. Here, the student becomes habituated into what the discipline expects from them through the supervisor's support and learning from their mistakes (Lee, 2007). However, if the apprentice model of supervision is encouraged then students may become over-dependent on supervisor's feedback and will not develop the confidence and ability to critically engage with the material (Manathunga & Goozée, 2007).

The critical thinking model values the development of the student's academic argumentation skills. The supervisor's focus is on critically evaluating and challenging the student to strengthen the arguments and assumptions supporting their research. This is achieved through Socratic questioning and critical dialogue (Lee, 2007). The supervisor encourages the student to actively challenge established knowledge and to critically interrogate its epistemological basis. This helps the student to master the craft of constant inquiry and develop their own ability to critique their own and others' work (Lee, 2007). This model may be particularly well-suited to disciplines that value contested forms of knowledge, and active intellectual engagement with developing an academic argument and assisting students in developing a sense of their own positionality in relation to knowledge. However, Manathunga and Goozée (2007) believe that critical analysis skills may be difficult to define even by experienced academics.

The empowerment model's primary focus is on the empowerment of the student through mentoring in the supervision process. Here, the supervisor encourages the student's progression towards independence and supports the

student's personal growth and capacitation through the process of constructing knowledge. This is achieved through the supervisory activities of facilitation, analysis, and reflection (Lee, 2007). Here, the student will learn to reframe their understandings, develop insights into appreciating different perspectives, and develop greater confidence in their own contribution to knowledge creation.

The relational model draws on the supervisor's relational capacities and experience in supervising a range of different students, and types of supervision. Here, the supervisor uses their own emotional intelligence, relationship-building skills, insight, and judgement to build rapport with the student, and create a sound working alliance as the foundation of the research supervision process (Lee, 2007). The supervisor is warm, containing, and versatile, and aims to understand the student and build a unique and meaningful relationship with them. The relationship between supervisor and supervisee is a primary concern in facilitating the progression through research, as this underlies the engagement with research tasks.

Helping professions, such as psychology and social work, are aligned as disciplines with the focus on the relational dynamics of supervision. Thus, relational models of supervision have an immediate disciplinary synergy with the therapeutic skills that are a central focus within training programmes. But it is imperative that the supervisor is also aware of alternative approaches to supervision (Bitzer & Albertyn, 2014). The knowledge of alternative models of supervision allows supervisors to find their own ways of situating themselves and developing their own approach, whilst also being able to adapt to different student needs. While they may have preferences, awareness of the different models and their foci can assist supervisors in integrating different skills and foci and contextualising these within their own disciplines.

The internal (research) supervisor

In this section, the concept or notion of the internal supervisor is explained, and the authors consider extending its application from the supervision in clinical practice to research supervision. Clinical

supervision is an integral part of the professional development of trainees in the helping professions. Clinical supervision not only aids effective therapeutic intervention, but also facilitates the therapist's own self-reflective and self-monitoring capacities in practice (Bell et al., 2016). The concept of an "internal supervisor" has been used extensively in psychotherapy to describe how the supervisory relationship is internalised by the trainee, and functions as an internalised reflective, evaluative, and supportive mechanism guiding future professional practice (Bell et al., 2016). Here, the external supervisory relationship becomes introjected as an internal thinking function. This function becomes a psychological resource on which the trainee can draw to adapt to different situations in clinical practice to ensure competence and effectiveness.

A social worker and psychoanalyst by training, Patrick Casement (1985, 1990) first proposed the concept of the "internal supervisor" in his books *On Learning from the Patient* and *Further Learning form the Patient.* Here, Casement (1985; 1990) describes the idea of an internal supervisor as drawing from pre-existing conceptualisations of ego functioning as differentiated between the observing and experiencing ego. The internal supervisor is part of an observing ego function and represents a part of the ego that is dissociated from the rest of ego functioning, and thus can observe itself while also experiencing the external world. Placing emphasis on the supervisor-supervisee relationship as one that is of primary importance and unique to each supervision dyad, is central to Casement's (1985, 1990) concept. For Casement (1985, 1990), the relationship between supervisor and supervisee forms the basis of a working alliance in which further development is enabled. The quality of this relationship is an integral part of any effective helping relationship, including the supervision relationship. This concept is aligned with Bowlby's (1973) concept of secure attachment, as well as attachment-based notions of internal working models that are developmentally created through the matrix of relationships established in early life (Bell et al., 2016). An internal working model is a relational template established in early life that subsequently constitutes a frame of reference that is applied to other subsequent relationships. Bell et al. (2016) argue that the concept has further commonality

with other seminal psychoanalytic concepts, such as Donald Winnicott's (1965) concept of "holding". Winnicott (1965) postulates that a mother's capacity to hold her infant, physically and emotionally, is integral to fostering a creative and generative mental space in which development can occur. This becomes the prototype for a therapist's capacity to hold the emotional world of the client in psychotherapy (Winnicott, 1965), and by extension, the supervisor's capacity to hold the emotional experiences of the supervisee in clinical training (Casement, 1985). Experiencing a holding relationship and environment fosters the ability to hold the challenging emotional and intellectual experiences that are evoked in research, as the two are intertwined.

Also based in psychoanalytic theory, Melanie Klein (1946) argues that the concept of projective identification is central to an infant's early development and relational capacities in later life. Through the unconscious mechanism of projective identification, a mother can understand an infant's overwhelming unconscious projections, as an early form of communication and thereby respond to these. Wilfred Bion (1962) extends these ideas and described the mother-infant dyad as the "container-contained". For Bion (1962) the act of containment occurs when a mother can emotionally recognise, process, and respond to the overwhelming projections of the infant's experience, and return these to the infant in a more manageable form that can be internalised. For Bion (1962), it is this process which can change overwhelming emotional experiences into purposeful cognitive activity and a process of thinking (Bion, 1962). Thus, Bion (1962) argues that mental life and the capacity for thinking is developed in this containing relationship. Containing relationships therefore play a crucial role in fostering psychological growth (Casement, 1985) and meaningfully integrate the emotional and the cognitive experiences of infants in early life. In containment, a mother meaningfully links raw unprocessed experiences for the infant. These links between internal phenomena and reality are then internalised, and then can be thought about. Containment is therefore a precursor of thinking. This dyadic process becomes the model of the clinician and client, as well as supervisor and supervisee, in the context of clinical practice.

In clinical supervision, the concept of an internal supervisor becomes symbolic of a dynamic and rich interaction between supervisor and supervisee in which a developmental mutual learning milieu is created. The supervisor provides containment for the trainee fostering the capacity to think about clients in a meaningful way, allowing the trainee to internalise the relationship. A containing internal supervisor who organises supervision experiences into processed, meaningful thoughts and ideas that foster the development of mental life and psychological growth. The internal supervisor is orientated towards the past, present and future, and can thus facilitate ongoing reflection on the meaning of client and supervision experiences, and the bearing that they have on navigating different relationships and situations.

The centrality of the relationship between supervisor and supervisee in clinical training has immediate synergies with relational models of research supervision in the helping professions. Relational models of research supervision, which are intuitively based on the prototype of early relational models, can draw more explicitly from these ideas.

Casement (1985) argues that the origins of the internal supervisor in clinical work are rooted in the student's first experiences of being a client. Attending their own personal therapy is recommended as part of the curriculum of professional training in many helping professions. In psychology, for instance, Master's students in professional clinically oriented training programmes (Clinical, Counselling and Educational Psychology) are required to attend their own personal therapy on a weekly basis throughout the two years of their Master's-level training. In social work, students are not required to be in their own personal therapy, but this is highly recommended, given the emotionally evocative and taxing nature of client work in the helping professions in South Africa.

Recognising the importance of the experience of being a client for their own process of learning to be a therapist, many qualified clinicians in private practice continue with their own personal therapy throughout their professional careers to further their own personal development and their competence as

therapists. This suggests that the capacity to experience oneself on both sides of the helping relationship fosters insight into reflective capacities necessary for effective helping. If we apply this line of argument to the research context, then the origins and development of an internal research supervisor, also lie in our own experiences of being postgraduate students ourselves and being supervised in our first research projects and continue to develop from this based on an integration of experiences from both sides of this relationship. Academics can usually vividly recount their own research supervision experiences as students throughout the course of their studies, favourable and unfavourable. Some of these memories of past supervision may be recalled with mixed emotions and differences in perspective; however, all are instrumental in fostering an internal concept of a supervision relationship. Without the requisite conceptual tools, supervisors may be limited in their full appreciation of the pedagogic value of these early research supervision experiences. As postgraduate students (and supervisors) encounter diverse supervision experiences, the concept of the internal supervisor becomes increasingly complex and multidimensional. As supervisors, we often limit our own understandings of these varied encounters as experiential knowledge that is not necessarily theoretically grounded. As in client work, the integration of theoretical knowledge of the supervisor is crucial to deepening understandings of clients and the complex psychological processes that occur in client relationships. In the SPS course, we were encouraged to reflect on our own experiences as students and supervisors, which fostered the necessary reflection on the nature and quality of the supervision which we had received and offered. In addition, we were exposed to theoretical understandings of the different supervision requirements at a policy and institutional level, to provide a macro-level context of the higher education sector in which to orient our experiences.

We have found that numerous factors that influence the supervisory process need to be considered. As Boughey et al. (2017) explain, the research process is not only about how two minds approach a research project but that tantamount to this process is the way in which these two individuals with distinct characteristics, experiences and expectations engage with each

other. Therefore, supervisors need to be aware of their own identities, values, sociocultural and educational backgrounds, and how this will factor in and will influence the supervisory relationship and process. Likewise, the personal characteristics and relational capacities of the student and supervisor play a role in this relationship. Eagle (2017) advocates that the personality of the student will have a profound effect on the supervisory process and that rigid personality types may lead to complex and relational difficulties in the supervisory relationship. Although one cannot dispute that the supervisory relationship will be affected by a student's personality, in the same tone the supervisor's personality will influence the supervisory relationship. Furthermore, considering the power that the supervisor wields in the relationship, the supervisor's personality can clearly influence the learning environment. The professional skill set of supervisors in the helping professions can be useful in assisting these supervisors in understanding and dealing with the personal dynamics that enter the research supervision context.

While relational skills of helping professionals are useful in research supervision, professional boundaries also need to be maintained in the research relationship to ensure that emotional safety is retained. Thus, it is useful to think about the research supervision relationship as a distinct type of professional relationship. Here, the supervisor's role is to focus on establishing a working relationship as a foundation of engaging in research. The supervisor will focus on the generation of research skills and find ways of empowering the student to negotiate the emotional and intellectual challenges that the research process evokes. Dunbar-Krige and Fritz (2006) emphasise that supervisees are in a vulnerable position as they need to not only successfully engage in a research process but also need to learn to effectively interact with the allocated supervisors. Consequently, the supervisor must create an inclusive and participatory learning environment and essential to this process is the establishment of expectations and boundaries. It is therefore imperative for the supervisor to explore the supervisee's expectations of the supervisor and the supervision process. Integrating a relational focus as a foundation with some of the other tasks and imperatives highlighted by the other models of supervision that were discussed earlier

strengthens the overall supervisory framework. Integrating the insights from different models within a self-reflective relational approach offers greater versatility for the supervisor to respond to each student's unique needs. This is critical in serving a diverse student base in universities.

Implications for the pedagogy of postgraduate supervision

In this section, we consider the broader pedagogical implications of specific disciplinary interfaces with postgraduate supervision models presented in the SPS course. We discuss how the course could potentially be taught and adapted through teaching and learning strategies to enhance an advanced level of supervision skill and capacity in the helping professions. We also consider the implications of our experiences for the development of supervision capacity in different disciplines. In its current form, the course is offered in a generic manner to academics from different disciplines. This is immensely beneficial as it allows academics to gain from the different supervision approaches that are used across the university and explore how these may interface with their own disciplines. We felt that this expanded our consideration of different supervision approaches and served as a useful resource to integrate with our own experiences of supervision. Therefore, it assisted in drawing from and consolidating an "internal (research) supervisor" through adding a theoretical lens to connect our supervision experiences as students and supervisors. Academics in all disciplines can benefit from the deepening reflexivity cultivated from developing an internal supervisor, and the skills involved in building a strong supervisory relationship with postgraduate students. This aspect of the SPS course can be further developed and may particularly be useful for junior academics who have limited supervision experience or as a foundational supervision skill. However, given the fact that the supervision of students from different disciplines may be more aligned with some supervision models than others, it may also be useful to tailor advanced postgraduate supervision training courses to types of disciplines, whilst retaining aspects

of the cross-disciplinary benefit received from an introductory postgraduate supervision training course.

Conclusion

Academics have been pressed to respond to a range of major changes in the academic landscape globally and in South Africa. As a result of these developments, academics need be more skilled and more reflective in how they engage with students in the process of supervision and knowledge creation. They need to increasingly think about how to adopt and implement strategies to attract and retain students in postgraduate programmes, as well as ensure that those who enrol in programmes successfully complete their degrees. While this may initially sound straightforward and easily attainable, the supervisory process is inherently far more complex than many may initially anticipate. If supervisors are not reflective and do not engage in ensuring the creation of inclusive and participatory learning environments, throughput rates of universities and the educational future of the country may be severely compromised. Therefore, supervisors need to be aware of the context in which they supervise and the practices and processes with which they engage. We have found that the SPS course offered as part of PGDip (HE) can play a significant role in this process. In our experience, the knowledge gained in this course has augmented and deepened our existing postgraduate supervision skill set, and pointed to directions in which we can creatively contemplate the links between the theory and practice of supervision. Here, we were able to think about the development of our own "internal (research) supervisors" by connecting the theory of supervision with our own experiences as postgraduate students and supervisors of students in various professional contexts. This in turn, has opened new understandings of how the supervision relationship can represent potential space that reflects on past, present, and future. Using these insights, the SPS could emphasise these aspects to a greater extent, and the potential foundation that they can create in combination with other models. These insights could also be used to enhance the development of future advanced postgraduate

supervision training courses and aligned with existing knowledge in disciplines to continue this trajectory.

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Chapter 12

Postgraduate Supervision: A Case for Specialist Pedagogical Training in the Sciences

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Introduction

This work is based on reflections from our experiences in the PGDipE (HE) (hereafter, the PGDip) course offered by the Humanities Faculty at the University of the Witwatersrand (Wits). We argue for a science discipline-based programme because the current supervision course provides generic principles and practices of teaching and supervision but does not focus sufficiently on disciplinary specificities. For example, the Wits PGDip in the health sciences contains similar topics to those offered in the general PGDip programme but addresses theories

of learning in the context of the health sciences. The expectation is that health education specialists will be able to identify and translate their theoretical and conceptual understanding better into their pedagogies. Similarly, as practicing supervisors in a science context, a course should cater to a diverse population of students ranging from clinical and basic science postgraduate (PG) students undergoing purely research or research and coursework PG degrees from different socio-economic backgrounds. In this chapter, we reflect on the higher education landscape, current practices in PG supervision with respect to teaching and learning, curriculum and assessment in the Science, Technology, Engineering and Mathematics (STEM) fields as it applies to the student and supervisor. We then reflect on our understanding and experiences and appraise existing literature to tease out aspects that make it necessary to contextualise these topics in supervisor training to improve supervisors' pedagogical competence. We work within a conceptual framework that incorporates the challenges of PG supervision in STEM such as issues of academic literacy and empirical training and emphasise the importance of institutional and national priorities in successful supervision. We also consider the theoretical grounding that supports our pedagogical approaches to PG supervision; namely, the functional model, social constructivism and the experiential learning model, all of which are critical to successful STEM supervision. Our purpose is to ensure that the enacted curriculum addresses the needs of supervisors and students while balancing expertise and interdisciplinarity in an emerging economy.

Contextualising postgraduate research supervision

In higher education, there are various contextual issues and challenges that influence research supervision. This is particularly true in the STEM area where training has a significant empirical focus. Some of the issues include the inability of the supervisor and/or the supervisee to crack the code of academic literacy and the lack of appreciation of students' social context in academic disciplines (McKenna, 2010; Boughey & McKenna, 2016). Moreover, there is a lack of curriculum understanding or assessment literacy, scant or no awareness of models of

supervision, limited understanding of supervision as a teaching and learning model and inadequate knowledge of the role of institutional policies, amongst others. These challenges become more critical in STEM where the cost of postgraduate supervision in experimental projects is exorbitant. Competitive funding processes, international, national, and university procurement processes also need to be factored into project planning. These are only some of the challenges experienced in STEM projects, which when coupled with strict timelines for completion of a postgraduate degree, can negatively impact successful outcomes.

The need for postgraduate knowledge and skills

To sustain the change in the mandate of higher education institutions, postgraduate supervision is important in building human capacity and improving institutional research capacities, reputation and attracting financial support (Okeke-Uzodike, 2021). Since the early 2000s, South Africa has been promoting the need for more graduates with higher educational qualifications to service a knowledge economy and as key to the National Development Plan (NDP) with human development objectives to be achieved by the year 2030 (PMG, 2008; NPC, 2014). Key indicators for the success of the NDP include an increase in the proportion of academic staff with a PhD; a PG student enrolment rate of 25% of total university enrolment and the graduation of 100 Doctoral graduates per million of total population per annum (PMG, 2008, NDP, 2014). The 2019 White Paper on Science, Technology and Innovation (STI) (DST, 2019) highlights the significance of investing in postgraduate STEM education to reverse the ills of apartheid and produce graduates capable of addressing the country's socio-economic challenges. The University of the Witwatersrand's Strategic Plan for Postgraduate Research (2023-2027) echoes this stance.

Achieving the goals of these strategic plans is dependent on key indicators which include external funding, research publications, research staff capacity and postgraduate student numbers. In the period 2000 to 2018, the number of white academics declined significantly from 64% to 40% (from 24,484 to 22,877) while the proportion of black African staff doubled to

44 % (25,252) coloured and Indian academic staff numbers grew 6% (3,510) and 8 % (4,808) respectively (Maphalala et al., 2022; DHET, 2015). Despite these changes in the demography of academic staff, the retention, completion and progression of graduate students from honours degrees to Master's and from Master's to PhD in South African universities from 2001 appears to be shrinking across disciplines (Mouton et al., 2015). Mouton et al. (2015) demonstrate that, on average, 16% of Master's students progress to Doctoral studies, while the rate of progression in the natural sciences is 26.2%. Despite some progress, the annual production of Doctoral graduates will need to increase from 1,420 per annum (in 2010) to 5,000 per annum in 2030 (HESA Office, 2012) to approach the target of 100 Doctoral graduates per million of the South African population. The lack of sufficient academic supervision was cited as the most important constraint to achieving the set targets (Mouton et al., 2015).

Pedagogy in postgraduate supervision

Supervision is a challenging process, particularly for novice supervisors who lack the appropriate experience and ability to adapt to the pedagogic rigour required for successful postgraduate supervision (Turner, 2015). Internationally, the significance of support in the research supervision process has been highlighted (Anderson et al., 2008; Harwood & Petrić, 2017; Maxwell & Smyth, 2011; Wichmann-Hansen et al., 2015). Some of the factors identified as important include responsiveness to students' needs and the importance of maintaining a good student-supervisor relationship (Lee, 2008; Mainhard et al., 2009). Novice study leaders tend to be worried about student appreciation of the supervision process, their unpreparedness, and the limited or lack of adequate support for them as teachers, disciplinary experts and postgraduate supervisors (Amundsen & McAlpine, 2009). Additionally, "production" of high-quality graduates and research outputs within shorter durations are major pressures considered in the teaching and supervision process (Lee, 2008). Moreover, supervision of postgraduate students at Master's and PhD levels is increasingly being linked to research productivity (Sadiq et al., 2019), which in turn impacts institutional status and

career progression of academics as defined by criteria for tenure and promotion. Developing strategies to cope with institutional pressures, supervisory loads, teaching, curriculum development, assessment and administration duties is thus essential to ensure successful outcomes for the student and the supervisor.

The generic Supporting Postgraduate Supervision course offered as an elective option for the PGDip at Wits is based on sound theories on the Scholarship of Teaching and Learning (SoTL). We argue, though, that contextualising these in the culture of the relevant disciplines would be ideal (Healey, 2000). This is in agreement with Silva-Fletcher and May (2018), who compared two groups of academics - those who completed specialised PGCert in veterinary education felt that the course aligned to their needs better than those who participated in the generic course.

Considering disciplinary differences, expectations and the potential advantage of a discipline-aligned PGDip, this chapter seeks to elucidate and propose recommendations on the need for a tailor-made specialist PGDip focused on STEM with an emphasis on foundational concepts provided by a humanities-centred approach. However, such courses would be best served by first identifying the challenges which are experienced by supervisors.

Examining challenges of postgraduate supervision in STEM

In STEM fields, acquisition of funding plays a major role in the design and completion of projects. Whereas South African research output saw a great boost since the 2000s, this has not been matched by continuously available and increasing funding from institutions such as the South African NRF, the main funding agency. In the last decade, the NRF has made changes to its funding support for research and development to universities and research entities motivated by government budgetary cuts (Engel, 2018). Consequently, they have been unable to ensure sustainable funding in light of the increasing number of researchers. Other agencies mandated to facilitate research and development in the STEM fields are the Medical Research Council, the Agricultural Research Council, and government departments including the

Departments of Higher Education and Training, Science and Technology and Trade and Industry but are also not immune to budgetary constraints (Luruli, 2014). Given the current funding limitations, researchers are encouraged to seek third-stream income, for example, through research commercialisation (Leitch et al., 2022) to fill budget gaps. It should be noted that third-party funding might constrain freedom of creativity through industry-style production. There is also the potential for reduced quality despite the potential benefits (Benner & Sandström, 2000; Luruli, 2014).

In a recent national assessment of PhD programmes, the Council on Higher Education (CHE) identified additional challenges affecting postgraduate supervision such as high academic workloads, particularly where academics teach undergraduate and postgraduate (coursework) programmes (Leitch et al., 2022). They noted the need for greater guidance and support for STEM postgraduate degrees and training in the use of specialised research equipment, laboratory techniques, data analysis and interpretation. With a lack of dedicated laboratory technicians and statisticians, the training is relegated to supervisors, effectively increasing their workload.

The CHE also identified bureaucratic pitfalls, such as unclear processes for applying for ethical clearance and inefficient university procurement procedures that impact the day to day running of projects (Leitch et al., 2022). There is inadequate training of emergent supervisors in navigating the bureaucratic minefield of academia and in the structuring of projects to facilitate postgraduate throughput and fostering graduate attributes. The numerous challenges and concerns can be considered as part of the pedagogic process of training postgraduates. An enabling supervisory pedagogy in STEM facilitates democratic engagements between the supervisor and student supporting the development of high levels of cognitive abilities and skills (Biggs & Tang, 2011). The pedagogical principles outlined below were introduced in the generic PGDip Supervision course but need to be adapted for the sciences.

Teaching and learning during PG supervision

Generally, the postgraduate supervision process has three important nodes, the supervisor, the student, and the institution. In STEM, the institutional node includes laboratory and administrative support. A supervisor's decision to take on a student is usually motivated by research interest, funding availability and institutional guidelines and policies on postgraduate supervision. Universities typically have statements of principles for postgraduate supervision which highlight academic freedom and individual autonomy in the pursuit of knowledge, the need for a reciprocal relationship and mutual accountability between the supervisor and the student. Once a research project is identified, an agreement between the supervisor and the student defines the respective roles and project milestones that the student is expected to meet. At this point, the supervisor's expertise and role become significant in the timely and successful completion of the postgraduate degree.

PG student-supervisor relationship

Postgraduate training involves providing a learning environment that is conducive to the development of the PhD candidate, balancing mentoring, support and the process of gaining independence (James & Baldwin, 1999). However, defining initial boundaries is necessary for the supervisor, while developing real relationships with their PG students. Mayeza and Mpofu (2018) highlight the complexity of this relationship where not all supervisors will follow the mentoring approach but may focus on instruction, as has typically been the case. The shift to a mentoring approach is suggested as better shaping and developing the postgraduate student (McAlpine, 2021). Mentoring requires an active approach to engagement between the supervisor and the PG student. In addition to increasing the supervisor and the students' accomplishments in producing new knowledge, open and honest relationships impact the development of the students' academic identity (Barnett, 2009; Winch, 2014).

An unequal relationship where the supervisor is the expert and the student the novice, particularly in the sciences, is more evident, since experimental skills and the capacity to

apply knowledge have to be inculcated. Progress in this regard tends to be easier where the student shares the linguistic and the academic culture of the supervisor (Picard et al., 2011). However, it is incumbent on the supervisor to lead the student into the academic discourse. While some negative learning experiences could form part of a PhD undertaking, the role of the supervisor is to assist students to navigate the state of liminality (McKenna, 2017), described as the "oh hell I'm confused" period just before "everything makes sense." Where experiments and processes have to be constantly negotiated, students may lack the necessary social capital to meaningfully contribute to solving the attendant challenges (Picard et al., 2011). In this case, there is always a need for collective responsibility between students and supervisor but also at the higher level of research administration. Anderson et al. (2018) propose a framework to support students and supervisors with a focus on stakeholder needs, but simultaneously recognising the need to develop both parties professionally.

Timely completion is an important aspect of successful supervision and is facilitated by the pedagogic assistance given to a student, the availability of funding to enable degree completion and student agency. Many authors have been advocating for the recognition of pedagogy in the supervision process, especially in the sciences, because it gives structure to the system, leading to supervision effectiveness (De Valero, 2001; Emilsson & Johnsson, 2007; Gill & Bernard, 2008; Golde, 2010; Ives & Rowley, 2005).

Supervisors often have to continue training postgraduate students to read and write complex academic texts and to think critically (Hubbard, 2021) in STEM fields where theory is often abstract, concepts dense and a high level of technical terminology is used (Fang, 2005). The research student is trained in how to review literature, develop their writing and data analysis skills and prepare grant applications (McCallin & Nayar, 2012). Cognitive apprenticeship strategies where the supervisor role models research tasks for the student have been shown to improve postgraduate research (Pearson & Brew, 2002). Here, the strategy can be hands-off or hands-on with the former having the student as the master of their own destiny while in the latter, a more structured approach to supervision is maintained (Sinclair, 2004).

In STEM, where the postgraduate research project usually involves laboratory or field experiments field experiments with demands for a high level of cognition ability from the student, an all-inclusive approach is necessary when considering supervision as a pedagogy (McCallin & Nayar, 2012). Kolb's (1984) experiential learning cycle is a useful model to apply to field or laboratory learning. The learning cycle consists of a concrete experience phase (teaching practice), reflective observation (observe), abstract conceptualisation (theory) and active experimentation. Given that most scientific research consists of reinforcement of knowledge incrementally like solving a puzzle, this cycle enables the gradual building of knowledge and competence based on a constructivist approach. In a study by Abdulwahed and Nagy (2009), the application of Kolb's (1984) learning cycle to a laboratory education model showed significant enhancement of the learning outcomes.

Models of supervision

The PG research process is such that while one model of supervision may dominate at a given time, flexibility and adaptability are essential in dealing with the different stages of study. For example, strategies aimed at the proposal and design phases of a postgraduate project may be markedly different from those employed at the experimental or data collection stages. Over the years, there has been a push for changes in the postgraduate training approach to be guided by skills needed, intellectual engagement (Barnett, 2009; Blackmore, 2009), or by considering more purposeful projects that are solution-oriented (McAlpine, 2021). While a PhD can be contextualised with a focus on disciplinary expertise, a skills approach that transcends disciplines is necessary (Bernstein, 2000; Maton, 2020). Using strategies that are more associated with the humanities, like approaches to encouraging and facilitating reading and communication skills, can cut across disciplines. Moving from general skills to specific contextualised skills in reading and interpreting STEM-specific content may thus assist the PG student in navigating the postgraduate degree. More recently, interdisciplinarity is being encouraged where students

require tools and theories of multiple disciplines to solve societal problems (Millar, 2016). Here, competencies and skills gained can permit crossing of disciplinary boundaries with the capacity to apply multiple tools acquired across multiple disciplinary research contexts. This warrants a move away from the traditional apprenticeship approach to supervision which requires individualised attention and where resources are limited, to more flexible approaches (Wisker et al., 2007; Manathunga et al., 2006).

In STEM, many supervisors ascribe to the functional model where research is mechanistic and reflects the process of dealing with research questions in a logical and operational manner. Currently, the success of scientific research is dependent on networks (Wolff & Moser, 2009). Such relationships can be achieved when models associated with human connections such as the emancipation, enculturation and the feminist models of supervision as captured by Lee (2008), are considered. As a core aspect of a PhD research process, the critical thinking model emphasises the capacity to reflect on existing concepts to analytically uncover associations and relationships when framing and answering research questions (Lee, 2007). Generally, especially in STEM fields, the application of a combination of models is becoming increasingly important in light of the need for postgraduate students to be adequately trained to tackle the increasing interdisciplinary nature of research questions (McAlpine, 2021; McKenna, 2017) and to be responsive in a changing world. The constructivist approach (Biggs & Tang, 2011; Hatano, 1996) to pedagogical processes is intrinsic to STEM fields and certain attributes of the functional model could be conflated with traditional pedagogical approaches that are deemed as "one-size fits all" approaches to supervision (Lee, 2008; Mayeza & Mpofu, 2018).

Where research includes a large component of skills-based acquisition, the social constructivist approach is applicable. It recognises the student as an active participant in the process shaped by the supervisor (Barnett, 2009; Moll, 2004). Through this dialogue, a student is not only engaged in knowledge acquisition and building but also preparing for the next steps of their career and acceptance into their academic, research

or professional community. This places some of the onus for successful outcomes on the student as well, which emphasises the importance of student agency on successful outcomes. This process also dovetails with the enculturation model (Lee, 2008) that strives to assist students in developing an academic identity. Supervisors need to be adaptable to student needs, while not losing their own purpose and sense of self. Ultimately, there comes a point where supervisors may ascribe to the emancipatory model, in which they aim to provide an avenue for students to participate meaningfully in the academic project, gain social and analytical skills and become professionals in their academic space.

The supervisory process is centred on the student to not only encourage development and empowerment but to actively facilitate membership of an academic discipline. It requires dialogue, with emphasis on face-to-face engagement, discussion of research articles and laboratory findings. In this way, supervisors are guides, supporting PG students through the research process, and encouraging student ownership and accountability of the research process (Case, 2015; Mayeza & Mpofu, 2018; McKenna, 2017).

The science curriculum context

The celebration of STEM as an effective way to cultivate key competencies of 21st-century talent has not been matched by sustained curriculum improvement to achieve this. Though this argument is common for undergraduate courses, the same can be said of the PG degree where there is an expectation for graduates to use theories, knowledge and skills to contextualise solutions without support to everyday life problems. This has been attributed to the absence of clear and structured systematic development and implementation of STEM curricula for PG supervision (Hu & Guo, 2021). In constructing a curriculum for PG supervision, Nomme and Birol (2014) suggest that an evidence-based approach be used to inform content and design a framework that adequately addresses the needs of PG supervisors, at different stages of their careers.

In classroom teaching, the curriculum is a guide to enable students to carefully examine their own conceptions during

instruction (Hand & Treagust, 1991). But this is largely absent in postgraduate supervision where many actors within and outside academia can be involved. A programme of planned activities and intended learning outcomes is the standard practice in curriculum development (Schubert, 1986). Evolution from the traditional conception of curriculum development should include a focus on administrative *and* academic processes (Morris, 2007). This is particularly the case at the postgraduate level where the student's enthusiasm for a research project is matched with supervisor satisfaction with the progress of the project (Ameyaw et al., 2019). Thus, developing a curriculum in STEM for PG supervision requires a curriculum that is adaptable, based on sound foundational principles to assist the PG supervisor to conceptualise and construct their own approach to the supervisory process and simultaneously generate knowledge.

Interdisciplinary curricula

As interdisciplinary approaches to solve complex problems are being promoted, the intellectual challenge of designing a coherent curriculum is acknowledged (Gantogtokh & Quinlan, 2017; Gurukkal, 2018). This stems from the need to integrate multiple bodies and forms of knowledge and to encourage students to apply higher-order thinking and problem-solving skills necessitating organisational, structural and pedagogical support from institutions. Within STEM, cognisance must be given to the fundamentals of discipline or domain-specific knowledge and skills that need to be acquired prior to effectively transitioning to interdisciplinary approaches. Additionally, the social aspect of an interdisciplinary curriculum design process can be intense and requires dialogue with diverse individuals and ideas, learning environments and bodies of knowledge (Gantogtokh & Quinlan, 2017). Supervisors need to be prepared for facilitating domain-specific and interdisciplinary approaches to research. This necessitates institutions to provide adequate training and support to enable the application of these approaches and how best to design the pedagogy of research for postgraduate success.

Training and development

Generally, PG degree programmes are designed to be attained within specific timeframes. To progress in the STEM area, the structure of research projects includes training in the core aspects of the degree (proposal and final reporting) within courses on research methodology, scientific writing and statistics. For the novice supervisor, research project design is critical and requires disciplinary expertise, and planning and defining experiments according to strict timelines. Continuous assessment and feedback on progress culminate in the final research report.

The PGDip curriculum design thus needs to firstly consider the general structure of research projects at varying levels (proposal development, monitoring and feedback and final reporting) to guide supervisors in the planning of postgraduate degrees. Additionally, supervisors should encourage postgraduate students to join research communities through attending frequent informative talks, research days and postgraduate workshops.

Given the pedagogical demands outlined above, it is evident that the requirements of a science educator are deeply rooted in the context of their teaching practice (Silva-Fletcher & May, 2018). This complexity is tied to the cognitive conflict often experienced by students in the understanding of scientific concepts - a phenomenon that contributes to pedagogical discontent amongst science teachers (Southerland et al., 2001). Such conflict arises from the distinct methodologies employed in science, which emphasise empirical investigation and explanatory frameworks that differ markedly from those used in the humanities (Kandlbinder & Peseta, 2009). As educators navigate these methodological tensions, their pedagogical approaches must adapt to reconcile conceptual challenges with effective teaching strategies.

Assessment in PG supervision

Assessment outcomes provide an opportunity to judge and validate student performance and offer suggestions for improvement. Curriculum, pedagogy and assessment are intricately linked and have to be designed in ways congruent with disciplinary knowledge structures; this is particularly important

in STEM fields. At the postgraduate level, student assessment is more complex.

Given the diverse competencies and attributes expected of the PG student, the supervisor should be able to assess the candidate's readiness for the degree and identify gaps that can be addressed. This requires a diagnostic assessment, which is performed at the beginning of the degree. It could involve processes such as quizzes on their understanding of the scientific method for the science degree, software applications skills, ability to work independently in a laboratory space, or successful completion of a literature review. Upon student enrolment, the formative assessment process begins, which involves peer review and feedback.

Consistent written and oral feedback is required not only in terms of written work, but also in cases of laboratory protocol designs, data analysis and data interpretation prior to compiling the thesis. The subsequent correcting, marking and assessment of the thesis is different from that of an essay or an assignment because of the peer review process (Powell & Green, 2007). Lovitts (2007) describes it as an "authentic" assessment since the aim is to develop a researcher who can produce new knowledge and is able to present the work at a level that can be judged by peers (Lovitts, 2007). This will include an understanding of the appropriate use of formative assessment tools such as regular meetings, emails, presentations, debriefing after a task is assigned. Furthermore, in the science space, the importance of assessment tools such as hands-on exercises in the laboratory or students engaging in simulation videos e.g., the Predict-Observe-Explain sequence of Zacharia (2005), has led to richer explanations from teachers.

The socio-cultural aspect of formative assessment can be complex during the postgraduate degree. Feedback can be offered in any format which could be a one-on-one meeting between supervisor(s) and students, group meetings, presentations to peers, peer assessment etc. (Chugh et al., 2022). Howson et al. (2022) highlight that in a cross-cultural PhD supervision process, learning can be enhanced where there is a sense of belonging, a democratic process where there is mutual learning, and an

appreciation of different cultures of supervisors and students. The absence of appropriate feedback is the main contributing factor to a negative supervisory process (Cekiso et al., 2019). Therefore, ensuring that adequate, timely, constructive and critical feedback is provided, becomes important in addition to other factors that contribute to student success. In STEM postgraduate degrees, the formative assessment process has multiple areas that need supervisor training. Generally, deciding on assessment tools, and the specific knowledge, skills, attitudes and beliefs that must be assessed is highly contextual and as a result, makes the process even more complicated (Capraro et al., 2011). Challenges with formative assessment can also be pedagogical or practice-related, contextual and/or individual-specific (Black & Wiliam, 2018; Henderson et al., 2019).

Given our experiences of challenges at the summative assessment phase of PG supervision and limited availability of empirical data in this regard, it is important that supervisors appraise some of the pedagogical issues of the formative assessment process that are hindering uptake of feedback as it pertains to PG supervision in the sciences. These challenges are not only applicable to the PG supervisor, but the student as well, since an individual's perspective and the availability of a supportive learning environment need to be considered (Dijksterhuis et al., 2013). A supportive environment is one where assessment is recognised as integral to the learning process (Moeed, 2015). A study by Underwood indicates that participant teaching practices improved as well as the frequency of formative assessment in a classroom consisting of science teachers after formal training on formative assessment (Underwood, 2012). This is not unexpected given that formative assessment feedback in science disciplines reportedly require attention to the data, its analysis and presentation while in the education disciplines, emphasis was focused on improving the argument (Holbrook et al., 2012). A pedagogical approach to formative assessment could potentially train supervisors and students to avoid such pitfalls.

Conclusion

The complexities and technological advances in today's society, call for the training and development of more postgraduate researchers with cognisance given to the socio-cultural nature in which postgraduate researchers operate in South Africa. Moreover, these postgraduate researchers would need to show fluency and fluidity in critical thinking, application, and the recontexulisation of concepts beyond the academic setting. A comprehensive curriculum on postgraduate supervision training and development of supervisory capacity has been identified as necessary to achieving the goal of 100 PhDs per million population in 2030 (Sehoole, 2011, NRF, 2014). This is especially important for STEM disciplines where particular cognitive and experiential learning experiences are necessary for the success of the postgraduate process. The focus of curricula for postgraduate degrees should not only be on outcomes related to disciplinary knowledge and practices but also on the processes related to ethics, research integrity, innovations towards the scholarship of teaching and learning (SoTL), and technology transfer. In so doing, a culture of continuous learning and reflective practice that advances SoTL is likely to be fostered.

Postgraduate supervision across different STEM disciplines has similar contexts of practice, particularly in laboratory-driven research projects that require considerable input and funding as well as training. Nevertheless, it is expected that within these settings, supervisors may be subject to different pressures and assume different pedagogical approaches. Being able to consider postgraduate supervision from a more strategic viewpoint is necessary to provide an overarching framework that supervisors can function within (Bernstein, 2000; Maton, 2020), while simultaneously being able to define individual areas of concern. Developing a PGDip that includes core principles from a humanities perspective with a focus on PG supervision within the sciences, would require participants to reflect on epistemological processes as described by Hatano (1996), Ashwin (2015) and Maton (2020). However, this needs to be undertaken contextually, by considering how supervisors assume their supervisory roles, which are shaped by the supervisor's identity and discourses

(academic or otherwise), and in turn how this undertaking is perceived, reflected and acted upon by the postgraduate students. It must therefore be recognised that supervisors themselves require training and institutional support to perform their role adequately.

We argue that specialist PGDip courses will be beneficial if they are contextualised for various disciplines and in this case, PG supervision in STEM. While such a discipline-specific STEM-focused PGDip has advantages in aligning with the needs of the student and educator, Silva-Fletcher and May (2018) warn that such an approach could isolate the discipline from the wider teaching communities in higher education and hence may not be good for fostering interdisciplinarity. However, there are also concerns that moving into interdisciplinary research without a strong foundation in the fundamentals of a discipline, may contribute to poor project design and ultimately result in poor outcomes. Therefore, the need for a programme with humanities-based fundamentals dovetailing with a contextualised discipline-specific programme, and the benefits that come with it such as improved teaching practices and potential reduction in student dropout rate, remain.

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Part V

Institutional Collaboration and Implementation

Chapter 13

Negotiating Collaborative Agency in an Inter-Institutional Postgraduate Diploma in Higher Education: Facilitator Experiences

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Introduction

There is growing interest in researching educators' collaborative activities in higher education, signalling the value of collaboration for teaching and learning, research and even leadership in higher education (Jones et al., 2012; Scherer et al., 2020; van Rijnsoever & Hessels, 2021). This interest has been fuelled by a recognition that collaboration gives higher education practitioners access to resources and expertise that would not otherwise be available to them or their students. Collaborative activities can also potentially allow for deeper reflection on one's own practice while enabling a unique collective dynamic that may not be achievable at an individual level (Lock et al., 2016). Despite these advantages, collaboration in the higher education space is not without its challenges, which often hinder efforts towards, and success of, collaborative activities.

In this chapter, I focus on one such collaborative initiative - a regional Postgraduate Diploma in Higher Education Teaching and Learning (PGDip in HE) programme (hereafter, PGDip) which was offered through a partnership between three diverse South

African higher education institutions. The PGDip programme is a professional development qualification for academics aimed at professionalising their teaching practice. As noted in the Department of Higher Education and Training's (DHET) *A National Framework for Enhancing Academics as University Teachers* (DHET, 2018), academics are appointed based on their disciplinary expertise and research potential, which do not necessarily translate into an effective (scholarly and professional) approach to teaching. Additionally, the report highlights the tension between the urgent teaching activities and the valued research activities that academics have to contend with, and which ultimately influence their willingness and availability to take part in formal teaching development programmes.

Empirical studies examining similar formal professional development programmes for academic staff in South African higher education have focused on, inter alia, participant experiences (Machingambi, 2020; Manzira & Munyoka, 2017; van den Berg et al., 2018), facilitator reflections (Du Toit, 2018; Strydom et al., 2023), approaches to developing criticality and reflexivity (Dison, 2016; Quinn & Vorster, 2016), as well as attempts to mitigate the dominant institutional "research discourse" in these teaching development courses (Jawitz & Perez, 2016). Additionally, there is a recognition of the shifting status of academic development in South Africa - the field responsible for the professionalisation of the teaching function in higher education (Boughey, 2007). These shifts are taking place in a globally uneven higher education landscape where academic developers have to contend with sometimes fragmented identities and constraining institutional structures (Clegg, 2009). Consequently, there have been calls for the recognition of context in programmes of this nature, as well as the role that the professional development of the academic developers themselves may play in mitigating these challenges (Leibowitz et al., 2016; Quinn & Vorster, 2014).

The professional development of academics therefore takes place in a contested space which can potentially influence the running of these programmes. Additionally, while most of the literature on the PGDip - and on collaborative teaching in general

- focuses on teaching within a single institution, this chapter contributes to our understanding of facilitators' collaborative experiences in an inter-institutional qualification. Adding to the research that has already been conducted on this collaborative PGDip programme (Manzira & Munyoka, 2017; Strydom et al., 2023; van den Berg et al., 2018; Winberg et al., 2016), the purpose of this chapter is to map out the different levels of negotiation that were necessary to collaboratively facilitate such an offering, with the aim of drawing out lessons for inter-institutional qualifications in a context still marred by historical legacies.

The Postgraduate Diploma in Higher Education programme

The inter-institutional PGDip programme was established through a regional collaboration between three universities located in the Western Cape province of South Africa: Stellenbosch University (SU), the University of the Western Cape (UWC), and the Cape Peninsula University of Technology (CPUT). These three historically diverse institutions represent different facets of the legacy of apartheid in the South African higher education landscape: a traditional university, a comprehensive university and a university of technology (Bozalek & Boughey, 2012; Cooper & Subotzky, 2001). Consequently, even though the government's post-apartheid transformation plans were framed around equity and redress, research shows that at a national level there are still some disparities in the different types of institutions in terms of institutional culture, research funding and outputs, access to structures and resources for teaching and learning, undergraduate and postgraduate degree programmes, as well as the student and staff complement in the different types of institutions (le Grange, 2009; Swartz et al., 2019). This diversity between the institutions and the importance of valuing and celebrating this difference was actually a strong motivator for the initiation of a collaborative offering of this nature (Winberg et al., 2016).

The programme was instituted under the auspices of the Cape Higher Education Consortium (CHEC), which provides centralised professional development, resource sharing and negotiation of partnerships between the member universities in

the Western Cape. Four modules - three core and one elective - were presented on the PGDip programme over two years through a blended format (block sessions and online engagement). Each of the three universities convened one of the three core modules, meaning that the module convenor - and therefore the venue for the presentation of the block sessions - was in that university. This approach exposed the programme participants to historically diverse structures and cultures of South African higher education, and the sometimes-disparate challenges and experiences of academics in those spaces. Though the qualification was presented collectively with module facilitators drawn from all three institutions, students applied to, and registered at, a particular institution and the qualification had a separate SAQA (South African Qualifications Authority) registration at each of the three institutions.

Theoretical lens: Collaborative agency

Agency in sociological thought is a contested term, with vague, slippery and sometimes contradictory definitions (Emirbayer & Mische, 1998; Hitlin & Elder, 2007). However, it is broadly understood as an individual's recognition of their power to reproduce or reflexively challenge social structures (Archer, 1995; 2000; Raelin, 2016). The relation between structure and agency is therefore a key component in understanding social phenomenon. While there is a tendency to view agency as an individual ability (Raelin, 2016), Archer (1995) contends that agency is plural as it refers to the shared structural positions of a collective. She proposes two types of agents - primary and corporate - based on how the collective respond to their structural circumstances. Primary agents occupy involuntary positions where they passively go ahead with their lives in the same way as others who share the same structural relations (Archer, 2000; Karlsson, 2020). Their responsive action is neither intentional nor strategic and usually works to sustain (or reproduce) structures and their enabling or constraining forces (Archer, 1995; 2000). Corporate agents, on the other hand, actively organise themselves in order to transform structures within the socio-political context (Archer, 1995). Therefore, the distinguishing aspect about corporate agents

is their ability to firstly articulate their desire to work against corporate structures towards transformation, and secondly to coordinate their actions in order to attain that collective aim (Archer, 2000; Karlsson, 2020).

In order to examine how these corporate agents could potentially carry out their transformative actions, I draw on Raelin's (2016) notion of intersubjective or collaborative agency which highlights human interaction through dialogue as key to not only how we understand the world but how we perceive our power to act in that world. Dialogue in Raelin's (2016) collaborative agency consists of the following elements, which will be used to frame the results of this study:

1. *Critical reflection* is the foundation of dialogue, and is based on how we see ourselves and others, as well as our perception of how others see us. This leads to *pre-reflective awareness* where agents enter the dialogue with particular knowledge, expertise and maybe even preferred and pre-tested outcomes.
2. *Fair dialogic exchange* entails talking freely, listening deeply and being open to a diversity of opinions. This should ideally result in *reciprocal dependence* where the give and take of the dialogic exchange results in a negotiated and co-constructed outcome.
3. A commitment to *practices that challenge structures* which have traditionally been taken for granted should ideally be one of the key outcomes of working collaboratively.

Hence, the main premise is that in order for the research participants to shift from primary to corporate agents - where they are able to express their desire for change and engage in action to enact that change - they need to be engaged in a number of dialogic processes. These processes are progressive in nature, moving from personal dialogues (critical reflection) to group engagement, with the purpose of challenging institutional structures.

Research design

An intrinsic case study design was selected for this research. This type of case study is employed when there is a unique

phenomenon that the researcher has a special interest in describing and detailing (Creswell & Poth, 2016; Stake, 2005). The case is therefore not representative of other similar cases, but its unique merits are what guide its selection (Crowe et al., 2011). For this study, the case was the regional PGDip programme, which was the only inter-institutional qualification of its nature in the country at the time of data collection. The dialogic experiences of the facilitators constituted the unit of analysis, particularly regarding their collaborative processes at module level.

Data was collected through online interviews and document analysis. A total of 10 participants were selected for this study, drawn from the three universities and CHEC. Although some of the participants were not part of the programme at the time of data collection (July to September 2022), all of them had prior extensive experience in the programme and had played an active role in its conceptualisation and/or design at programme level, or facilitation at module level. Interview data was initially analysed inductively to draw out broad themes from the experiences of the participants, after which a deductive approach based on the collaborative agency framework was followed. The PGDip programme and module documents were analysed, as well as institutional policies related to teaching, learning, assessment and postgraduate education. Ethical clearance for the study was obtained from Stellenbosch University, and the requisite permissions and clearances from the participating institutions were also obtained prior to commencement of data collection.

As the researcher, I was an active member of the PGDip programme and module level teams. I also acted as the institutional coordinator for the programme, had been a rotating chair of the programme committee (which rotated every two years) and also convened and co-facilitated one of the modules on the programme. Hence, my positionality influenced not just the conceptualisation of the study, but also the data collection and analysis. Member checking was used to ensure that I had captured participants' responses and meanings accurately. Additionally, the use of a theoretical lens helped me to focus my analysis and mediate the biases that may have crept in during data collection. My prior knowledge of the programme was helpful in the data

collection, providing insights for the kinds of questions and prompts that I needed to ask.

Results and discussion

Establishing the programme

The results of this study point to a number of factors that enabled the conceptualisation and successful development of this programme. They are briefly highlighted here as some of the research participants pointed to their value for the sustainability of the programme - and hence their importance in understanding some of the structural constraints experienced by the participants.

Firstly, the programme founders had extensive international collaboration experience and had collaborated with each other on other teaching and research projects prior to the establishment of this PGDip in HE programme. Therefore, they were already familiar with the time commitment and required resources to develop a programme of this nature: "...even to construct those courses ...sometimes it took a year to a year and a half" (P1). They were also aware of the strengths that they could contribute and had an already-established relationship of trust between them, as confirmed by one of the participants: "I knew all of them, which I think was helpful. You know, I'd known them long before we actually worked on this module" (P3). There were, of course, some new team members invited to facilitate right at the beginning "with their own ideas, and they didn't know each other and they were you know, sort of trying to actually find common ground" (P1). However, the extensive collaborative experience that was in the facilitation team enabled them to address these issues.

Secondly, there was a strong shared vision which drove the development of this programme - the desire to value difference across the diverse South African higher education landscape. Based on their experience of collaborating and bringing students together across different international contexts, the programme founders were keenly aware that academics often "work in silos", are not confronted with differences outside of their "little territory", and that students and teaching staff can potentially be

blinded by their ignorance of these differences (P1). A key element of this professional learning space was therefore to allow students and facilitators to "engage with difference" (P1) for a richer and more meaningful learning experience.

Thirdly, there was strong academic leadership in all three institutions responsible for driving the initial acceptance and establishment of this programme. One of the participants labelled the programme founders as "passionate leaders" who were committed and driven to work together (P2). These leaders needed not only resilience, but also support from executive management to get the programme up and running:

> ...some people were a little bit sceptical of it actually. So we had to push quite hard against that scepticism. People said argh, we've tried this before and it didn't work [in reference to other regional academic programmes]. ...So those sorts of things need to be supported by senior management as well. They need to see the benefit of it, otherwise you know you're gonna struggle to keep things going or to get things going. (P1)

Additionally, CHEC provided infrastructural and logistical support systems, and helped to "deal with conflict resolution, ...iron out rough edges" and negotiate the alignment between academic, institutional and CHEC board requirements (P2). Hence, there was synergy between passionate leaders, executive management and the external CHEC board in facilitating the establishment of this inter-institutional programme.

Facilitator experiences of dialogic processes

In this section I discuss insights related to how facilitators negotiated the collaboration of the PGDip modules across three diverse institutions through various dialogic processes. While the programme aim was to have six facilitators (two from each institution) facilitating each module, some elective modules had fewer facilitators - and in some instances, only facilitators from one institution. This had implications for the way that they experienced the collaborative processes and their agency within

the facilitation team. As alluded to earlier, the results below are loosely framed using the dialogic processes in Raelin's (2016) collaborative agency framework, which progressively move from personal dialogue (critical reflection) to group engagement (fair dialogic exchange). This should ideally lead to institutional dialogues that seek to challenge taken-for-granted structures.

Positionality emerging from experience

The ability to be critically reflective is the foundation of effective dialogue in teams - and is guided by how we view our positionality in relation to others, but also our perception of how other team members view us. Prior experience in staff or professional development and in teaching modules with similar content was a key driver for a strong positionality at module level. The diversity in terms of the research participants' prior experience included those who had taught similar modules or content within their current or previous institutions, those who were coming in from a different context, i.e., private higher education where the purpose and structure of such courses was different, those who had been involved in the professional development of staff from a strategic or managerial role but had never taught on similar programmes, and those who were diving into academic staff development for the first time. There was also diversity in terms of teaching experience on formal qualifications at postgraduate level. The different institutions within which the participants were based did not seem to have a causal effect on how they viewed their positionalities within the facilitation team.

The value of prior experience seemed to have given the participants confidence as they had prior exposure to challenges that they were likely to face on the programme:

> ...during that time [facilitating other staff development courses] I really cut my teeth and I learned to deal with a lot of resistant academics when it comes to academic staff development. (P4)

Experience in prior settings also gave them a nuanced understanding of the:

> ...complexity between ...the flexibility, the no-pressure approach that we have to professional development, [and] the pressure that you have in a *gewone* [normal] course, in a course that's structured with deadlines and marks. (P5)

Most of the participants expressed the above point in different ways - the complexity and sensitivity of their positionality in relation to their students who they considered as fellow academics. They had to balance the student-colleague dynamic in how they approached their course design, teaching and assessment on this programme.

In some instances, however, extensive prior experience resulted in the silencing of other voices - those who felt that they had less experience. One participant (P6) expressed her struggles with her initial inexperience in terms of teaching the content of the module, and how she was unable to contribute to the shaping of the course or the negotiated outcomes. When students in the module experienced challenges with a structure that she did not fully understand, she had to assist in ironing out these issues. Even in subsequent runs of the course, she was not confident enough to give voice to her objections towards change despite evidence that the structure and content proved challenging for a portion of the students.

Diversity of approaches

A strong sense of their positionality in relation to the other facilitators and the students is said to lead to a pre-reflective awareness of what knowledge and expertise the agents can contribute to the collaborative effort - and sometimes ideas on what the preferred outcomes of the collaborative activities could be (Raelin, 2016). During this pre-collaborative phase, agents may build or test artifacts or technologies, or plan and design resources to be considered during the collaborative phase. Based on their expertise within the knowledge field, they may even have a set of outcomes that they plan to contribute - although the caveat is that they need to be open to diverse views, as discussed in the next section.

All the participants in this study had a clear idea of what they could contribute in terms of an effective approach to facilitation at this level, i.e., postgraduate staff development programme. There were subtle nuances in the approaches that they aligned with, and some of the participants highlighted the need to be open to negotiation in the collaborative space and incorporate those approaches that had been agreed on collectively. One participant spoke of his teaching as attempting:

> ...to democratise my practices and by democratising my practices, I create opportunities for critical thinking [and] student autonomy – there is equalisation of the pedagogical relations. I don't see myself as this expert, but rather somebody that is part of the learning process. (P4)

Aligning with this approach to some degree, another participant highlighted how:

> I really believe that learners learn more from each other than from their lecturer. ...my best classes are those where actually I sit and they perform. ...I think you need to create the sort of culture for that. ...you need to create a safe space in the classroom for them to fail [and] it's okay. ...But it's also important how you design the learning, ...structure, ... layer and scaffold the learning. (P7)

One participant highlighted the importance of the application of theory and helping academics to map what they learnt to their own courses and contexts (P6), while another was concerned with building rapport and sharing between students in a relaxed and enabling learning space (P8). A few participants highlighted the importance of role modelling in their teaching - an aspect which was sometimes challenging to effectively carry out because of facilitators' diverse approaches that did not always align. The source of these approaches was also different, as some developed them through trial and error, while others had implemented a research-based approach to their teaching. One participant indicated that her years of teaching in academic development prior to joining the programme had exposed her to the norms and

practices espoused by other facilitators on the PGDip programme, allowing her to easily adapt to the facilitation approach on the module which she taught (P6).

A few challenges were highlighted at institutional and module level regarding the differences in approaches. One participant complained about the lack of time for planning, which sometimes resulted in a lack of "coherence within the programme" as a whole, as well as the diverse "backgrounds... and orientations" of the other facilitators, which made it difficult for him to stay true to his orientation to teaching and learning (P9). Staff changes in the facilitation team also resulted in new team members coming in who had different understandings or "not enough of a grasp" of lecturers' realities at different institutions (P6). Consequently, this participant laments having to negotiate sometimes "surface practices" which were not guided by a central theory (P6).

Another participant had a managerial role in the institution and a facilitation role on the programme, and shared her frustration with the dichotomy between the developmental approach to facilitation and its financial sustainability:

> The approach for facilitation from a pedagogical point of view, I was very comfortable with, because it's very developmental, lots of opportunity for students to work together, to revise, to get comments from supervisors, to rethink what they're doing, to work with one another. So at a teaching level or from, you know, a pedagogical approach, I would say I was very comfortable and I found ...that very, very good. But because I was also [a manager], it put me in a very awkward position because I was responsible at the same time for cost efficiency. And so the amount of time that that kind of facilitation took, the amount of energy out of – and staff time – that it took for very few students, was for me a big dilemma, because I could see that this was not cost effective from a budget point of view. (P3)

Considering that the programme had been funded by the DHET for the first few years, the initial structure was doable as programme

costs were covered by this funding and expertise was sometimes drawn from outside of the three universities for particular topics within modules. The "intense nature" of the facilitation on the programme gave the participants "a very, very rich experience" (P2). Unfortunately, since the end of the funding period, there was growing tension related to this issue. Some participants strongly rejected "rumblings from management" and what they term the "neo-liberalist" view of staff development as taking away from the pedagogic needs of academic staff on the programme (P1). Others felt that they were criticised for being too concerned with and highlighting financial issues (P3). The faculties within which some participants were based also "started to ask how can we spare this capacity for one programme?" (P2). Consequently, there were increasing concerns about the programme's economic sustainability in the long-term, considering the balance between the number of staff teaching each module, and the total number of students registered per institution.

Diverse dialogic spaces

The negotiation of collaborative agency at group level takes place during dialogic exchanges between corporate agents. For the dialogic exchange to be effective in enabling open collaboration, it has to be fair to all parties involved, regardless of their positionality within the team. This means that each agent should feel that they are able to share their ideas freely knowing that they will be listened to openly and considered fairly by all. There should also be an openness to ideas and opinions that are different from one's own (or from those that are traditionally accepted). The results of this study vary in terms of how the participants viewed the fairness and openness of the dialogic exchanges within the facilitation teams.

One participant shares how the dialogic space was highly collaborative because it was made up "...of like-minded people who are willing to share ideas openly and freely" resulting in an energising, highly structured - but also iterative - space (P8). She highlights how the module convenor was instrumental in ensuring the high levels of communication as well as incorporating each round of student feedback into the next run

of the module. Another highly collaborative space was enabled by the restructuring of a module where most of the members of the team were new. An original team member had initially struggled to contribute to previous runs of the course because of her inexperience, but felt that there was now a "good sort of basis to start off from... and I was able to contribute to the planning of the course ...with people coming in [and] starting something afresh" (P6). This participant's positionality shifted within the group when new members joined, and her knowledge and expertise over the years that she had taught the module gave her the confidence to make a valuable contribution.

In a few instances, course convenors were named as the key drivers for either good or inadequate dialogic exchanges. One participant mentions how when the collaborative space failed her in some way, she would turn to the module convenor for guidance on how to proceed. His vast experience in diverse educational institutions helped her to navigate some potentially sensitive challenges and enabled her to grow as an academic in a new environment. As she states, this convenor "had a clear vision and ...knew where he wanted us to go with the theory" (P5). He also gave the lead to others at different stages in the process in order to attempt to incorporate sometimes disparate views - a process that the participant highlighted as "difficult" (P5). A number of participants struggled with a dialogic space that did not work well for them. While one of the modules "does what it needs to do" for the students, the facilitators felt that the communication and interaction was "not as robust" as it could be between the facilitation team members (P8). They pointed to a lack of openness to new ideas or changes to the standard or inherited module templates and topics. There were also instances where "brief words in an email" were inadequate in enabling the facilitation team to carry out a particular task, and resulted in misunderstandings which could have been avoided with more open dialogic spaces (P5).

The result of fair dialogic exchanges should ideally lead to a reciprocal dependence, where the outcome of the collaborative process is negotiated and co-constructed by the team members (Raelin, 2016). While most of the participants felt that the module

outcomes had been relatively fairly negotiated, there were a few experiences that indicated a dissatisfaction with the dialogic processes. One of the reasons for this challenge was linked to the rate of turnover of academic development staff (P6) not only within the institutions, but consequently on the programme as well. As one participant indicates, "...continuity is the single biggest thing that I think we need" (P5) as facilitators leave or change roles within their institutions.

The work undertaken on the PGDip programme was also viewed differently within the institutions. Some participants felt that teaching on the programme gave them status within their institutions where they were viewed as experts in teaching and learning-related issues, and consequently were drawn into institutional discussions and decision-making spaces because of their work on the programme. Other participants, however, felt that the PGDip in HE work actually hindered their progression and promotion as there was a lack of recognition of this work within their contexts and the time committed to the programme. As one participant highlighted:

> ...I started expressing my concern that the program wasn't in the forefront of people's minds as being a faculty program. It was kind of hidden in our account of what we were doing. And I don't know why that was. ...There was no committee to which I could report and the information didn't feature in our teaching and learning committees, and by implication, it didn't feature in Faculty Board. So nobody was aware of it, of the program. And so it was very marginalised, ...not deliberately marginalised, but just not known about. (P3)

Additionally, there were indications that the shift to fully online teaching and learning during the coronavirus disease 2019 (COVID-19) pandemic and beyond had had a negative effect on how colleagues came to know each other, and hence how they viewed themselves in relation to facilitators they did not know (positionality) and how well they were able to engage in effective dialogues:

> I think that also it's difficult to develop relationships with your colleagues when you've just encountered them in an online context. (P6)

> ...all we really need is more time together, more time for us to be together to discuss, to get to know this thing, to get to know each other. ... we really didn't have enough time to find each other. You know, we were just on the back foot all the time [during the COVID-19 lockdown], as a team. And that meant we didn't even find agreement about how we feel about theories, how the theories hang together. (P5)

Institutional dynamics

The main outcome of Raelin's (2016) collaborative dialogues should ideally be challenging institutional structures that have traditionally been taken for granted. In other words, for primary agents to truly claim corporate agency, they need to have engaged in dialogue and practices that bring about transformation at institutional level. However, there are some fragmentations within the higher education system and the disparities within the institutions that make this desirable outcome difficult (but not impossible) to attain.

One of the challenging issues at institutional level is the "collaborative dynamic ...when you co-own a programme ... [than] if you offer a program that's owned solely by your institution and you invite people from other institutions to participate and teach on it" (P10). This issue of programme ownership leads to challenges related to taking responsibility for the quality of the programme, as well as programme-level leadership and accountability to the individual universities. CHEC has played a key role in facilitating dialogues at programme level, as have the rotating programme-level chairs and institutional programme coordinators. However, challenges still persist when there are differences of opinion at programme level, and especially when the programme committee has to gain support from the institutions and module facilitators to carry out proposed changes. Additionally, "the number of role players [is] just phenomenal" when you look at what a single programme-

level change would need to go through in terms of acceptance by multiple module facilitators, as well as department, faculty, quality assurance, senate and other institutional structures before it can be implemented - and each of these approval processes and deadlines are different for each of the three institutions (P10).

Another challenge related to programme ownership was the lack of a shared online space with document archives to support the teaching and learning function. Most of the modules were run on open-source platforms that were accessible to all. With staff employed - and students registered - at different universities as part of the programme, it was a challenge for module convenors to organise institutional access on one LMS (learning management system) for all modules. This was aggravated by the fact that all modules had different convenors, and each institution was responsible for at least one module. Hence, open-source software (like Google Drive) was mostly used, which had its own challenges, including the following:

> I didn't feel comfortable with using [it]... It puts us in a position of sharing personal details or personal drives, personal data... I don't have IT support on Google Docs... And Google doesn't promise me security of the data, so the data moves. We lost some students' submissions. Someone meddled with the study guide - we lost the study guide. Some of the readings, you know, got lost in the process. (P5)

The purpose and positioning of the PGDip programme in each institution also introduced some elements that needed to be negotiated. Depending on the institution, the PGDip was viewed as an academic staff initiative for professional development within the institution versus a qualification that needed to be opened up to academics from any institution outside of the Western Cape province. This difference in status or positioning meant that there were subtle differences in programme and module-level understandings of the purpose of the programme. As one participant highlighted regarding their own staff development initiatives in the form of short courses:

> ...we tend to take a lot more flexible approach. ...[E]ven though we have set deadlines, more often than not we say to people, that's OK, we understand ...your professional pressures... And so let's be lenient, because we evaluate it [assignment] in terms of the fact that it's staff development. (P10)

While this leniency in terms of deadlines is a relatively common practice for academic staff development initiatives, it introduces challenges for formal, semesterised qualifications, and particularly within an inter-institutional programme of this nature with different institutional requirements and deadlines for formal qualifications. Another challenge related to how facilitators from different institutions viewed the purpose of assessment where colleagues facilitating together on a course interpreted the outcomes and rubric differently (P5). Since colleagues often acted as internal moderators for each other, this proved a challenge, as expressed by one participant:

> Even if the quality's not great, our view on assessment is that it's a developmental opportunity. So we're not assessing for the purpose of determining whether you pass or fail, we're assessing with a view to how you can develop as a student (P10).

In a similar instance, a student failed a re-submission, which led to "a big discussion about where the efforts to help the student pass should end and how far they should be extended. And again there were differences of opinions across different institutions" (P10). Ultimately, in these two examples, the module convenors took responsibility by consulting the institutional policies where the students were registered and ensured that these were adhered to. In each case, the students failed the assessment and had to meet additional institutional requirements (e.g., re-submit or repeat module) in order to complete the qualification.

Conclusion

The successful development and running of an inter-institutional PGDip programme is a complex and challenging endeavour. In this chapter, I first briefly highlighted the motivations for setting up a programme of this nature and what factors ensured its successful development. The main focus of the discussion, however, was facilitator experiences of teaching the modules and the different levels of negotiation necessary to successfully accomplish this. There were also a range of institutional issues related to programme ownership and how members of the programme team viewed the purpose of the programme. While institutional change or challenging taken-for-granted structures should ideally be the result of the personal dialogues and group engagement (Raelin, 2016) at facilitation level, this was difficult to attain for an inter-institutional programme of this nature. This could be because each institution has a different purpose for taking part in the collaboration (P10), and these purposes may sometimes be divergent. Additionally, what counts as taken-for-granted structures in one institution may not be an issue in another - and facilitators sometimes did not agree on how far this "challenging" aspect could go within the programme and also in their own institutions.

However, it is important to note that despite the challenges, the module convenors had an influential role in setting the tone of the facilitation dialogues. The way that they acknowledged differences of opinion, handled disagreements, communicated module-related information, mediated discussions and allowed team members to lead at different points, was instrumental in enabling positive dialogues within the facilitation team. It was also important for them to have an intimate knowledge of institutional policies from the three universities that affected the teaching, learning and assessment within the modules so as to offer sound guidance when challenges arose.

An inter-institutional qualification of this nature should also potentially consider having "a good, sound ...operational or policy infrastructure" (P10) that will enable the sustainability of the programme. Issues like the high turnover of academic staff and the different positionalities that the programme has

in the different institutions may affect the administration and operation of the programme without such documents. Additionally, managerial changes within the institutions may affect the continuity of the programme and the shared vision for collaboration, if these are not well-documented.

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Part VI

Conclusion

Chapter 14

Reflections on PGDips

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Introduction

This final chapter presents a critical and social realist analysis of what this volume offers to an understanding of the influence of a formal programme like the PGDip (HE)[1] as a mechanism for strengthening academics' roles as teachers of their disciplines in contemporary higher education. We start by outlining the aspects of social and critical realism that we use for our analysis. This is followed by explaining the structural and cultural aspects of the higher education context in which the PGDip is offered. We then discuss PGDips as a response to the context. We examine the structures of programmes and the main ideas, concepts and theories studied in PGDips and suggest the ways in which the pedagogical processes of PGDips enable them to meet their aims of contributing to the professional learning of academics. In this discussion we will draw on the preceding chapters to illustrate the points that we make. Next, we show how the structural and

1 Hereafter the qualification will be referred to as the PGDip or the Diploma.

cultural conditions in higher education institutions and in the country more broadly and PGDip contexts enable or constrain academics' *agency* as teachers. We end the chapter by reflecting on where the gaps might be in PGDips in South Africa and suggest possibilities for how we could address these in future.

We start by providing a brief explanation of some of the main tenets in critical and social realism that we employ in our analysis. Following Bhaskar (2016), we only use what is useful for our analysis, and do not examine all the conceptual and methodological possibilities of these complex theories.

Critical and social realism

Essentially, critical realism is a so-called under-labourer for research, by emphasising an understanding of reality as multi-layered and therefore more complex than is evident at a surface level. *Events* (the level of the *actual*) in the world emerge from the interplay of two or more underlying structuring mechanisms that operate at the level of the *real*. While these mechanisms have the potential or tendencies to cause an event, their potential may remain unrealised or unactivated. In the case of the PGDip, the chapters in this volume show that the programme has the potential for far-reaching influence on the identities, knowledge and practices of individuals; however, this potential is not always realised or not realised in the same ways for all participants. Furthermore, if an event emerges, it may be observed and experienced by some, while others may be completely unaffected by or unaware of it. Lack of awareness does not mean that there was no event. People's different *experiences* (the level of the empirical) of events, can be explained, amongst other things, by their prior histories, their vested interests, and their positions in a particular context, particularly in relation to those with power. This means that different aspects of the PGDip will be experienced in different ways by different participants based, amongst other things, on their prior learning experiences (see for example, West Chapter 7, this volume), their understanding of their role, and conditions in their institutions and departments (see the case studies in de Klerk et al., Chapter 2, and Adams, Chapter 3, this volume).

A critical realist analysis aims to uncover underlying structures and mechanisms to explain why things are the way they are in the world. This is achieved by the researcher first describing the event or situation, then identifying, analysing and reducing the number of plausible potential causal structures or mechanisms through a process of elimination based on their knowledge of the context. The analysis must explore the relatively enduring social structures at play that influence events and how they are experienced. In the case of the PGDip, we explore conditions in the South African higher education system more broadly and in universities specifically. We examine how the system and institutions are influenced by economic conditions as well as the power relations and norms and values that shape the context and how these may have shifted over time. The purpose of the analysis is to consider the ways in which formal programmes like the PGDip can contribute to the professional learning of academics. Critical realism emphasises the usefulness of considering not only what is present, but also what is *absent* that may prevent professional learning opportunities for academics to achieve their full potential so that universities can offer more students the greatest chance of success.

Archer's social realism is an explanatory methodology and framework that is supported by a critical realist philosophy and in-depth ontology (Archer, 1995). In addition to the critical realist stratification of reality into the empirical, the actual and the real, social realism contends that social reality consists of parts and people. The parts are relatively enduring *social structures* that distribute material resources, and *culture*; that is, beliefs, ideas, values, and theories that people draw on in a context and that influence their decisions and actions. Agency (people) is influenced by and interacts with structures and culture and depending on their vested interests and relative power in relation to others, people work to maintain, change or resist prevailing conditions. Agency is differentially enabled or constrained by existing structures and culture, with corporate agency, unlike primary agency, having the capacity to shape some structures and cultural items (see de Klerk et al., Chapter 2, and Adams, Chapter 3, in this volume for explanations of different forms of agency).

Time is an important element in a social realist analysis, as is the analytical separation of structure, culture and agency at particular moments in time. This separation is to allow the researcher to distinguish which component of social reality - structure, culture or agency - has had the biggest influence on conditions in a particular context staying the same (morphostasis) or changing (morphogenesis). A good example of the influence of time is captured in West's analysis (Chapter 7, this volume) of how his gaze shifted over time as a result of the feedback that /he received on reader responses and reflective tasks and his growing understanding of disciplinary differences between the fields of education and engineering. His adoption of new ideas (the level of culture) gradually changed his understanding of disciplinary knowledge structures and practices.

We will use concepts and aspects of the explanatory methodologies from critical and social realism to delve deeper into what the book chapters reveal about the role of PGDips in strengthening academics' conceptualisation and enactment of their roles as teachers of their disciplines, thus giving them the tools to design curricula, and pedagogic and assessment practices to give more students access to powerful disciplinary knowledge and knowledge practices. In the next section we discuss aspects of the higher education context in which institutions offer, and academics participate in PGDips.

South African higher education context

Academics in South African higher education[2] work within a complex structural and cultural system, which is shaped by the apartheid legacy, ongoing transformation needs, financial constraints and other competing national priorities (Badat, 2024). Despite thirty years of democracy, the South African higher education landscape remains plagued by deep structural inequalities. This, in combination with technological, political, economic and social changes in higher education globally, has profound implications for academic practice. As noted in Chapter 1, the academic role is multifaceted, encompassing

2 The Lesotho higher education context shares many of the same challenges as South African institutions.

teaching and research and service to the institution; it involves institutional contributions through administration, management and leadership and service through involvement in professional organisations and participation in peer review processes for scholarly journals and books. Community engagement also forms an integral part of teaching in many institutions, while academics contribute directly to changing society through socially relevant research. This complexity is exacerbated by academics having to navigate a complex landscape of competing demands, including teaching diverse student groups in an environment of perpetual underfunding, precarious labour conditions for academics and uneven resources across institutions (Badat, 2024). Furthermore, funding models driven by performance metrics and student enrolment force institutions to prioritise throughput and research output, often at the expense of pedagogical innovation. Thus, at a time when university teachers need to spend more time experimenting with teaching, learning and assessment activities that have the potential to ensure the best outcomes for students, they also have to contend with a host of competing demands. This sets up a structural and cultural milieu of a multiplicity of constraining contradictions that do not serve the needs of academics and their students well.

Higher education is governed by several national policies and legislation aimed at regulating, transforming and developing the sector in line with societal needs and national imperatives. These include the Higher Education Act No. 101 of 1997 (RSA, 1997); the National Qualifications Framework Act No. 67 of 2008 (RSA, 2008) and subsequent iterations thereof (2013, 2025) as well as the National Framework for Enhancing Academics as Teachers (DHET, 2018), all of which to varying degrees advocate for equity, redress, quality and the need to ensure that students receive quality education through the professionalisation of academics as teachers in higher education. Despite the presence of these structural and cultural mechanisms, implementation of practices aimed at access with success is uneven across the sector, which can be partially attributed to enduring inequities across institutions (CHE, 2020).

According to the Department of Higher Education and Training (DHET, 2023), graduation rates at historically disadvantaged institutions remain significantly lower than at historically advantaged institutions, with systemic underfunding and overcrowded classrooms deepening teaching and learning challenges. This structural reality places immense pressure on and constrain the agency of academics to deliver quality education to increasingly diverse student cohorts.

Culturally, many universities continue to grapple with the persistence of a dominant Eurocentric academic ethos, privileging Western epistemologies, languages, and forms of knowledge while silencing and marginalising others (Khumalo, 2024). Movements like #FeesMustFall and #RhodesMustFall have intensified calls for transformation, placing academics at the centre of debates about curriculum, identity, and social justice. Considering this, the role of the academic has once again expanded beyond knowledge production and dissemination to include mentorship, advocacy, and leadership in transformation endeavours. This expanded role is complicated by the casualisation of academic labour with over 60% of academics on temporary contracts that limit their ability to contribute to institutional transformation (Badat, 2024).

As mentioned above, the entrenched hierarchy that privileges research over teaching is a constraint for many academics wanting to enhance their teaching. Despite national frameworks that emphasise the importance of parity of teaching and research, promotion and reward systems in many institutions continue to privilege publication records and grant acquisition. There is a constraining contradiction between the cultural system that emphasises the need for good teaching in the university environment that must compensate for the inadequate schooling of the majority of university entrants, and the structural system that ascribes more status to research, publication and postgraduate supervision in systems of recognition and reward. Even though Ernest Boyer demonstrated and argued for the recognition of the scholarship of teaching (that arguably also includes the scholarship of the integration of knowledge), in a 1990 publication, the educational role of academics is often not given due recognition, discouraging academics from investing

time and effort to develop their teaching (Boyer, 1990). While the actual structures like policies and frameworks that advocate a cultural system of valuing teaching and learning, at the level of underlying structures and mechanisms, the primacy of research and the amalgamation of constraining national and institutional conditions continue to limit the extent to which institutions and academics can meet the huge demands placed on them.

Institutions like the University of KwaZulu-Natal, which was one of the first institutions to change their promotion criteria to explicitly recognise teaching, have demonstrated that when teaching excellence is formally rewarded, there is a marked improvement in teaching quality (Vithal et al., 2013).

What is the PGDip and what does it offer academics?

Professional learning of academics takes multiple forms with some being of relatively short duration, lasting from one or two hours in the case of seminars, workshops or master classes, to others stretching over whole or multiple days in the case of workshops, and even longer in the case of short courses. Though we do not dispute the potential usefulness of the examples cited, we believe that programmes such as the PGDip offer participants opportunities for extensive in-depth engagement with ideas, concepts, theories and practices related to the most important aspects of the teaching role of academics, including teaching (i.e. the mediation of student learning), curriculum development, and assessment. The structured nature of PGDips creates potentially transformative spaces where academics engage deeply with educational theory, reflect on their practice, interrogate the assumptions supporting what they do and, in the process, develop a sophisticated understanding of the complexities of teaching and learning in the disciplines (Quinn, 2012). In addition to developing more sophisticated conceptions of teaching and learning that create an elaboration at the level of culture, a crucial aspect of the PGDip is that it fosters the development of scholarly teaching communities amongst and between cohorts. These supportive structures enable academics to collaborate across disciplinary boundaries (Vorster & Quinn, 2017). The communities of practice reinforce and expand on the learning in

the PGDip (see Evodia, Chapter 6 and Padayachee et al., Chapter 4, this volume) and the corporate agency that results is necessary to counteract the sometimes negative reception of new ideas that PGDip participants experience in their home departments (see de Klerk, Chapter 2; Adams, Chapter 3; and Uys et al., Chapter 5, this volume).

Structurally, the development of disciplinary expertise and a researcher identity formation happen through extensive immersion in knowledge generation practices when conducting Master's and Doctoral level research. A similar immersive process is not generally available for the development of expertise as an educator and the formation of an identity and agency as a scholarly teacher of the discipline. We believe that the PGDip is an ideal vehicle for engaging with the knowledge and practices needed to be a "good" teacher of the discipline.

The PGDip is an in-service professional learning programme for academics who have complex professional lives, as indicated above. It is therefore important that PGDip curricula and pedagogies take account of the time-consuming nature of the academic role. PGDip modules are offered through weekly seminars or week-long blocks. In our experience, weekly seminars tend to provide participants with the best opportunities for consistent engagement and incremental, sustained, and cumulative knowledge building. However, offering modules over week-long blocks, is sometimes the expedient choice in cases where academics attend the PGDip at other institutions, sometimes hundreds of kilometres away from their own campuses. These blocks offer opportunities for extensive immersion in course material and learning over short periods of time, with the expectation that participants continue their learning by reading course material, writing tasks and assignments, and reflecting on their practice in relation to their PGDip learning in the time between blocks. During the COVID-19 lockdown period, many institutions had the opportunity to experiment with offering the PGDip fully online, with useful lessons learned about how to engage students actively synchronously and asynchronously (see de Klerk et al., Chapter 2, and Uys et al., Chapter 5, in this volume).

Even though PGDips are academic qualifications, their primary aim is to contribute to the professional development of academics as teachers in a highly unequal higher education context, with institutions previously designated for white students having been much better resourced than those designated for students from other race groups. Since the opening of all institutions to all race groups, student success and failure, persistence and drop-out, have consistently been along the lines of race, class and language groups. The project of academic development has been to influence institutions to change curricula, pedagogy and assessment in ways that make it possible for more students to succeed.

A quick survey conducted by the authors, of PGDips in South Africa indicates that in most institutions there is alignment of the programme with the academic development project in that most of them emphasise developing reflective practitioners, fostering scholarly approaches to teaching and learning, and integrating theory with practice to enhance educational quality and improve student learning and success (Vorster & Quinn, 2012). A notable alignment exists between these purposes (evident in the domain of culture) and broader structural challenges in South African higher education. For instance, issues like inadequate supervisory support, limited funding opportunities, and the need for inclusive pedagogies are directly addressed through the emphasis on professional accreditation, ethical teaching practices, and reflective methodologies.

While policy alignment is not the core function of postgraduate diplomas in higher education, they do serve this important secondary function as part of a broader professional development imperative. PGDips create space for academics to examine and interpret policy requirements in relation to their practice. Through their focus on higher education practice, PGDips enable critical engagement with policy, enabling participants to explore how national frameworks impact curriculum design, assessment, and quality assurance.

Most PGDips are offered by a single institution, with the programme offered in the Western Cape, being a notable exception. Tshuma (Chapter 13 in this volume) explores an inter-

institutional PGDip co-designed and co-facilitated by academic developers from three universities in the Western Cape under the auspices of the Cape Higher Education Consortium. Academics from the three universities enrolled for the programme at their own institution and institutions took turns to convene and facilitate the different modules of the programme. The programme benefited from the range of knowledge, experiences and expertise shared by the team offering the qualification and whilst participants gained immensely from the conversations with colleagues from very different institutions with diverse histories and mandates, however, there were significant structural, cultural and agential constraints that bedevilled the collaboration.

There is widespread encouragement of inter-institutional collaboration to facilitate knowledge and resource sharing, and there are major benefits for individuals, projects and institutions, however, Tshuma's research points to difficulties that emerge in the domain of structure. Different institutional policies and procedures related to key aspects such as the use of resources, including numbers of academics and time allowed per programme, to how assessment processes and outcomes are handled, created challenges for the programme. Concerns that emerged from institutional struggles for resources caused by diminished state funding to universities, as well as struggles for status resulted in contradictory expectations, policies, and procedures that tended to constrain well-intentioned collaboration.

The cultural domain of PGDips: ideas, beliefs, values, concepts, theories and practices explored in the programme

Being a successful teacher in a specific discipline involves four main elements. First, is a strong understanding of not only the disciplinary content knowledge to be taught, but also the ordering principles particular to said discipline (MacIntyre & Dunne, 2002). One cannot teach something that one does not understand. Second, together with disciplinary knowledge, a good teacher needs an understanding of the theoretical perspectives that support teaching itself: knowledge of learning theories and aspects of pedagogy, assessment and curriculum.

Third, from a practical perspective, there is the importance of acquiring the highly contextual elements of classroom and student management. Finally, Shulman (2005) emphasises the importance of developing what he refers to the "wisdom of the practice", something ill-defined, which points to the significance of the development of personal attributes of a stance towards education (see Uys et al., Chapter 5, this volume).

Professional identity and thus agency, develops incrementally over time. The PGDip contributes significantly to the development of a teacherly identity because of the immersion in ideas, concepts and theories about teaching and learning. PGDip pedagogies rely heavily on group discussions amongst the class of peers across disciplines as well as critical reflection on the relationships between theory and practice, considering how the theory can enable solving individual teaching and learning challenges. Academics are encouraged to experiment with their teaching by using the theory to consider ways of addressing particular curricular, teaching, learning or assessment challenges that they experience in their practice (See Campbell, Chapter 9, and Atemkeng, Chapter 10, this volume). Thus, they are required to reflect in multiple ways and via different modalities - individually, in groups, in writing and experientially (see West, Chapter 7 in this volume), through conducting "experiments" in an effort to solve teaching and learning-related "puzzles" (Atemkeng, Chapter 10, this volume).

The mechanism that leads to the identity shifts is what Archer (2003) calls reflexivity and takes place via internal conversations. In the case of the PGDip, these reflexive conversations are externalised through multiple mechanisms including reflective writing exercises as well as the conversations amongst peers (West, Uys et al., and Campbell, this volume). Structured activities in the PGDip create formal spaces for participants to articulate how their practice and teacher identity is evolving. The chapters in the book are illustrations of reflective practice and highlight the ways in which activities and exposure to theories helped the authors to improve their practices individually and as part of a collective (see for example, Mashifana et al., Chapter 8, this volume).

Every discipline has its own peculiar discourse and ways of thinking and practicing (Shulman 2005, Ashwin, 2020). Because the PGDip is a multi-disciplinary field and has participants from diverse disciplines, it is necessary for the programme to enculturate participants from fields with very different knowledge and knower structures (Maton, 2011) into the knowledge and practices of the field of HES. It is important to conduct this in ways that are not alienating to those from the hard and hard applied sciences (Mann, 2005). Academics from the arts and social sciences generally find it easier to perform the kind of learning expected in the PGDip. Those from the hard science disciplines find the discourse alien, and it generally takes them longer to become comfortable with the discourse (West, Chapter 7, Fru et al., Chapter 12, this volume).

Several chapters refer to the usefulness of the PGDip discussions between academics from different disciplines. These conversations are enriching because participants learn about the diverse perspectives on the same issue, while also finding that colleagues sometimes approach very different disciplines in similar ways. Other chapters argue that discipline-specific PGDips may be more useful precisely because participants will share similar ways of thinking and practising (Fru et al., Chapter 12 this volume). While recognising the benefits of a "generic" PGDip, Fru et al. (Chapter 12, this volume) argue that discipline-based PGDips where the theories studied in the programme are applied specifically to, for example, STEM fields, would be more useful in building academics' understanding of teaching in their fields. They use the peculiarities of postgraduate supervision in STEM fields to argue their case.

We are aware of PGDips for educators in medical schools that may be justified if one considers the highly specialised nature of medical knowledge and practices. Our view though, borne out by some of the chapters in this volume (de Klerk et al., Chapter 2, Uys et al., Chapter 5, Fru et al., Chapter 12, this volume) is that diversity of cross-disciplinary peer learning brings richness and nuance to the PGDip deliberations.

How the PGDip (HE) shapes the formation of academics' identities as teachers

Weller (2019) argues that becoming a teacher in higher education begins with academics recognising themselves as learners. As they take on the role of students on the PGDip and are introduced to learning the new discourse of Higher Education Studies participants have a sense of what their own students experience when confronted with new or alien discourses (Uys et al., Chapter 5, Mashifana et al., Chapter 8, this volume). Weller (2019:2) continues, pointing out that even though academics "may have qualifications, expertise, knowledge and publications, in essence we are continually learning when we research and when we practice in our professional fields, as well as when we teach". The importance of learning to become a teacher in the context of PGDips is well-illustrated in the chapters in this book. They collectively highlight the rich and nuanced South African higher education landscape and the ways in which PGDips contribute to learning and to the development of teacher identities.

For instance, Linda's journey (de Klerk et al., Chapter 2 this volume) exemplifies how reflexive engagement with pedagogy can lead to significant shifts in personal and professional agency, especially when supported by a structured programme that encourages critical self-examination. Similarly, Mike's narrative (Adams, Chapter 3 this volume) emphasises the interplay between individual agency and institutional structures, revealing that while personal reflexivity can enable transformative teaching, sustainable change often requires supportive institutional environments. The PGDip provides academics with a meta-language to talk about teaching and learning and where necessary, to defend their practices with colleagues who may themselves be reluctant to change (de Klerk et al., Chapter 2 and Adams, Chapter 3 this volume).

Perhaps one of the most enduring contributions of the PGDip is its role in developing academics as scholarly teachers. Using Shulman's (1987) taxonomy of knowledge, Uys et al. (Chapter 5, this volume) reflect on how the programme expanded their pedagogical repertoires - from content knowledge to curriculum design and pedagogical content knowledge. Importantly, this

scholarly approach to teaching does not simply involve the acquisition of skills, but the development of a disposition towards continuous inquiry, reflection, and improvement.

The chapters by Campbell, (Chapter 8) Atemkeng (Chapter 9) and Graham and Mason (Chapter 11) are examples of the kind of scholarship of teaching and learning (SoTL) that academics can engage in as a result of their learning in the PGDip. Campbell demonstrates how her learning about curriculum development concepts and practices, combined with her growing capacity for reflexive practice regarding her teaching and her students' learning, enabled her to align her curriculum with transformation goals for higher education and the counselling psychology profession. Atemkeng also provides an example of the kinds of experiments or puzzles that PGDip participants construct to address a teaching, learning or assessment issue that they or their students are experiencing. The concepts that participants encounter on the PGDip enable them to develop theoretically and pedagogically sound solutions to teaching challenges. Graham and Mason consider shifts in supervision practices required in a context where transformation imperatives require academics to supervise more and more students. They examine ways in which the pedagogy of postgraduate supervision could be enhanced and bring the concept of the internal supervisor from the fields of clinical social work and psychology to bear on their argument. Similarly Fru et al. (Chapter 12) acknowledge that pedagogical knowledge is social-science based, and that a curriculum for teachers and supervisors in STEM fields would take cognisance of this and recontextualise that knowledge for science educators.

A recurring theme throughout the book is the transformative power of curriculum development for shaping student identities and learning outcomes. The notion of constructive alignment (Biggs, 2012) is widely used as a tool for structuring curricula. However, it is also important to consider what knowledge, what kinds of practices and what kinds of learning and what kinds of knowers are legitimated through the curriculum (Clarence, 2017). In Chapter 9 (this volume), Campbell critically reflects on a fundamental misalignment in the curriculum for the Master's programme in counselling psychology. As a matter of social

justice, student counselling psychologists practice in their own and their clients' language(s) of preference. However, this transformative pedagogic practice is constrained by the structural imperative of conducting summative assessments exclusively in English. Thus, even if students have opportunities to draw on the rich reservoir of cultural resources afforded by practicing in a vernacular language, they are unable to display that in an examination that has to be conducted exclusively in English. Therefore, a transformative pedagogic practice is confounded by the cultural and structural constraints of assessment rules and in all likelihood, the agential constraint of examiners' inability to understand any of the African languages. These insights affirm the importance of curriculum as not merely a technical exercise, but as a deeply social and philosophical one.

Absences in PGDips

As noted in the introduction to this chapter, a key aspect of the critical nature of critical realism is to consider what is absent in a context and then to explore how the absence can be filled to achieve the desired goal of transforming it. One of the key challenges in South African higher education is that the language of teaching and learning remains English, while the majority of students' high school learning experiences would not have prepared them adequately for the high-level conceptual learning required in the disciplines. There is a gap in the contributions to this volume of how issues of language and culture can be addressed in the classroom. There is also limited discussion on how curricular and pedagogical interventions and approaches could be used to address student alienation emerging from entering alien institutional and academic environments. In this regard, Campbell's chapter where she explores the need for learning to offer therapeutic interventions in the languages of students and their potential clients as part of pedagogy and assessment (Chapter 9) and Mashifana et al.'s chapter on the need for a pedagogy of care to ease engineering students' transition from school to university, are notable exceptions (Chapter 8).

While the examples cited are indicative of cultural responsiveness (Moll, 2004), bolder and more radical responses

may be needed to address the enduring race and class-based disparities in student performance. We would therefore argue that it is necessary for PGDips to include more in-depth engagement with the implications of adopting decolonial frameworks (e.g., Ndlovu-Gatsheni, 2018) for examining higher education in South Africa. This would enable individuals and institutions to grapple with the political economy of knowledge production and dissemination and explore ways to address Eurocentric pedagogical norms that may constrain student engagement. Following Arendt, Khumalo (2024) argues that it is important that academics meet their pedagogic obligation towards students by designing curricula and pedagogic approaches that prepare them for critical engagement with the world that they inhabit. Lebelo et al. (2021) argue for the importance of re-thinking and re-framing modules offered in the PGDip at a university of technology in South Africa. This may be true of all PGDips and may help us to recognise the real causal powers of enduring colonial structures and acknowledge that indigenous knowledge systems (IKS) may provide epistemic access to staff and students. Such engagement will also highlight the importance of structural change, not just cultural and pedagogical change.

As the chapters are grounded in Southern African contexts (see Evodia et al., Chapter 6, this volume, for an example from Lesotho), they do not address global forces such as the influence of rankings regimes, and the marketisation of education in shaping local practices. There is a need to examine how transnational policies interact with national agendas (e.g., South Africa's post-apartheid reforms) to condition the objectives of PGDip programmes.

The chapters were written just as the disruptive power of generative AI (artificial intelligence) for the world more broadly and for education specifically became evident. As we are learning more about how AI can be used to enhance and detract from learning, PGDips will have to focus acutely on the implications of AI for decisions on what is taught, for pedagogy and assessment practices and for how we are preparing students for an unknown world.

Establishing the value of PGDips

PGDip modules or courses and programmes are evaluated through generating feedback on curriculum content and pedagogic processes and also on the learning of participants. In addition, course designers and facilitators use their own critical reflection and advances in knowledge of the field, to examine the effectiveness of the programme. However, there is also an expectation from institutions and national bodies that the broader impact of professional learning programmes is demonstrated. This is no easy task, however, Padayachee, Dison and Ganas (Chapter 4, this volume) developed what they call the 3P framework for evaluating the impact of the PGDip. This framework provides prompts and questions to enable course participants to reflect in-depth on the impact of the programme on their personal (professional) growth, pedagogic practice and professional recognition. The questions focus on these three aspects in the contexts of the participant's discipline and the institution as well as in the national and international arenas. Unlike conventional evaluation models, the 3P framework allows for an authentic and dynamic account of growth, positioning reflection and reflexivity as central to becoming a scholarly educator. The authors in this volume deliberate on the impact of their learning on their personal and professional growth, their pedagogic practice and mostly, they argue that their learning and growth is not adequately recognised by their institutions.

Institutional policies on teaching and learning, and particularly promotions policies and criteria can provide tangible evidence of an institution's valuing of "good teaching." While agency to develop teaching and learning is necessary for professional identity development, it is not enough to convince and enable most academics to pursue the rigorous professional development opportunities presented through a PGDip programme. Adams (Chapter 3, this volume) points to the importance of institutional cultures and structures that value and reward good teaching in encouraging academics to pursue programmes like the PGDip despite their time-consuming nature.

Conclusion: Way forward

The chapters in this volume collectively illuminate a rich and nuanced predominantly South African higher education landscape where transformation, identity formation, and pedagogical innovation within the context of the Postgraduate Diploma in Higher Education programmes across diverse institutions is evident. Through a blend of theoretical engagement, reflective practice, and empirical case studies, the authors of the chapters have demonstrated and explored how the programme as a professional development initiative serves as a catalyst for change, not only in the practices of individual educators but also in the broader institutional and disciplinary contexts in which they teach. At the heart of their explorations lies the recognition that teaching in higher education is not a static or neutral act; it is an agential process deeply embedded in structural, cultural, and temporal realities.

While many PGDip alumni have taken leadership roles in their disciplinary and university contexts and are influencing other academics to work differently and centre student learning, academic staff development programmes such as the PGDip still have a limited reach. Since its inception in the early 2000s, fewer than three thousand out of nearly twenty one thousand permanently employed[3] academics have successfully completed the programme. While the ideas articulated and learning reflected on in the contributions to this volume may not be representative of the experiences and learning of all PGDip graduates, they do offer a glimpse of the ways in which the immersion in theoretically informed conversations about teaching and learning can advance the development of the identities and practices of scholarly teachers in higher education. Given the challenges of student access and success in South African higher education, it is perhaps time to consider whether the PGDip should not become more of an expectation for early career academics than it currently is.

If PGDips are to contribute to the transformation of the higher education system, then the professional development of

3 According to the CHE's VitalStats (2024) there were 20,612 permanently employed and 29,370 temporarily employed academics in South African higher education institutions.

academics as teachers must be embedded within the structures and culture of institutions and nationally. If this does not happen, then only those who are intrinsically motivated and who are obligated to attend because they are part of a programme that requires it, will spend the time and energy required to complete a PGDip (HE).

As higher education continues to grapple with rapid technological, social, and political changes, including those brought about by the disruption of generative artificial intelligence, the need for reflexive, adaptable, and ethically grounded teaching practices has never been greater. The PGDip, as presented in these pages, offers a promising pathway forward - one that empowers educators to not only survive but thrive in an ever-evolving academic landscape.

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This book brings together scholarly contributions that explore the evolving nature of Postgraduate Diplomas in Higher Education offered across varied higher education contexts. Through fourteen chapters, the book provides rich insights into the complexities of academic staff development and the professional learning of university educators. The collection adds to the body of knowledge in the field of higher education studies by deepening understanding of academic development and highlighting innovative practices that shape teaching and learning in higher education.

This book will appeal to academics who teach in Higher Education Studies programmes, and discipline-based academics exploring new approaches to their own teaching practices and examining the impact of their practice and programmes. It is also aimed at professionals working in Higher Education and designing research in Higher Education Studies. The book is of particular interest to academics who are developing reflective approaches to their own teaching practices, have an emerging interest in researching their own teaching and the learning of their students, as well as those interested in postgraduate supervision.

Overall, this is a very impressive manuscript, which is strengthened considerably by being multi-authored, focused on multi-site analyses, drawing on a range of programmes and disciplinary spaces, and consisting of a range of methodological approaches and methods of data collection. (Reviewer)

The book makes a solid contribution to both theoretical and professional knowledge in these fields as well as in the broader higher education landscape in the country and elsewhere. Indeed, I am optimistic that this work will be disseminated widely and be of interest to scholars and practitioners here and elsewhere in the world. (Reviewer)

This book does not target a narrow audience. Indeed, there are important studies covered here that will be of interest and relevance to academics across disciplines and contexts. Specialists in Higher Education Studies research will find something new in this work, but so will academics who have a developing interest in researching and reflecting on their own teaching and the learning of their students. (Reviewer)

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