



**TECHNIUM**  
**SOCIAL SCIENCES JOURNAL**

**Vol. 26, 2021**

**A new decade  
for social changes**

[www.techniumscience.com](http://www.techniumscience.com)

ISSN 2668-7798



9 772668 779000

## Doctoral supervisor's views on building a Research Identity

**Matsolo Clairina Mokhampanyane, Lethoyo Segalo**

Central University of Technology, South Africa, Department of Educational and Professional Studies

[mmokhamp@cut.ac.za](mailto:mmokhamp@cut.ac.za), [lsegalo@cut.ac.za](mailto:lsegalo@cut.ac.za)

**Abstract.** Literature confirms that building a research identity forms the basis of good supervision. Also confirms that, it takes time and commitment, but every good supervisor needs to be a scholar in their field. The study's main interest was quality value added to doctoral candidates as established researchers and how supervisors' research identity transferred to doctoral students? In addition, the researcher wished to establish the supervisor's responses to research identity and application thereof. A qualitative research study was used with a purposive sample of 10 doctoral supervisors at the time of research, were designated using knowledgeable sampling technique. Bourdieu's *homo academicus* theory of cultural capital was used to frame academic identities of fit for purpose. Open-ended questionnaire was used to collect data from the participants. The data collected was analyzed using thematic analysis. This study reveals that active participation of supervisors in research is critical, as that is how good quality in research can be measured. The findings also revealed that role and responsibilities of doctoral supervisors could be derived from taking part in research and willingness to learn from others open for training, collaborations and supervision developments in order to develop their research identity in academia.

**Keywords.** Doctoral supervisors, supervision, building research identity, knowledge economy, knowledge transfer, role and responsibilities

### Introduction

The massification and high enrollment of postgraduates at institutions of higher learning is a worldwide challenge. Africa as a whole and South Africa is not exempted from the challenge of high number of student enrollment (Mouton & Frick, 2020). Within the South African context, the huge number of registrations was again brought about during the early part of 2002s with the purpose radical transformation and restructuring of South Africa's higher education institutions (Arnolds, Stofile & Lillah, 2013). The purpose of to ensure that students become accommodated at the institution of higher learning (Development Bank of South Africa, 2010). Qualified lecturers worldwide are critical needed and the acceptance of the knowledge economy and society as well as adhering to the rise of the doctorate (Mouton & Frick, 2020). Doctoral candidates require investment in well-equipped doctoral supervisors who are expected to produce high-level skills that would lead to the knowledge economy (Mouton & Frick, 2020).

Lee (2018) argues that supervisors need to realize the growing field of research ethics, intellectual property and where to find the latest regulations that will affect doctoral candidates.

This means the role played by the supervisors towards students' knowledges and experiences is critical (Sverdlik et al, 2018; Cotterall, 2013). The doctoral supervisor is very crucial to support, motivate and encourage doctoral candidates. To fulfil the production of quality doctoral candidates, countries and universities are bound to strengthen supervision staff capacities of contributing to doctorates and to knowledge economy (Mouton & Frick, 2020). Muller (2009) focused on knowledge transfer as well as knowledge creation. In response to the call for quality production of PhD and qualified supervisors the European University Association introduced a project "Doctoral programme for the European knowledge society". From the EUA seminar, 10 common principles for doctoral Education reform were formulated (Botha 2020). Some of the topics covered in the principles are as follows; achieving critical mass, the advancement of knowledge through original research and the crucial role of supervision and assessment of doctoral candidates (Botha, 2020) Supervision considered to be essentially cognitive undertaking between rational, disembodied minds and where supervision is expected to proceed smoothly (Grant & Manathunga, 2011).

Mouton and Frick (2020) confirm that doctoral supervision is accepted as a separate part of academia that merits research into it. Doctoral supervisors are expected to guide doctoral students towards scholarly disposition, the graduate exhibits, intellectual autonomy, originality, authority, accountability, scholarly integrity, and ethical respect for, and application of, the relevant academic and/or professional codes of research and practice (Botha, 2020). That means supervisors who are knowledgeable and experienced in doctoral supervision are highly recommended (Mouton & Frick, 2020). However, the African continent is still faced with its own challenges in addressing the above-mentioned attributes for doctoral candidates. The eight challenges in developing and promoting doctoral education in Africa as highlighted by the 2012 International Association of universities report on doctoral education status within Africa (Mouton & Frick 2020). Three related to the author's institution considering its size and authors experiences. Those challenges are, low institutional capacity, poor quality supervision and lack international information sharing.

The more the doctoral graduates the more the doctoral supervisors needed (Mouton & Frick 2020). To overcome the challenges Stellenbosch University through its CREST unit has addressed the quality expected from the doctoral graduates through this Crest course, by improving supervision in Africa (Mouton & Frick 2020). As a result, the supervisor should have a reference to context, possess specific discipline, methodological, theoretical knowledge, skills in academic writing and research practices, familiarity with research cultures and access to research networks (Bastalich, 2015). In 2017 Bastalich, reiterated that quality can be improved by dealing with the "problem of supervision". Effective supervision that concentrates on meeting the needs of different students would resolve the problem of poor supervision (Frick, 2020). Also, the introduction and clarification of roles and expectations by both supervisor and student need to be established at the initial stage of the doctoral candidature (Barrie, (2005); Boughey & McKenna, (2020). To clarify the role and responsibilities for supervisor and student a clear memorandum of understanding must be signed after a thorough discussion (Boud & Lee 2007, Ives & Rowley, 2005, McCormack 2004). Rules and regulations must be established to guide both parties. Memorandum of understanding needs to be implemented accordingly, and the benefits of it (Boughey & McKenna 2020). To ensure quality supervision and elimination of poor supervision, Frick (2020) suggests additional supervisors to strengthen supervision to students and to add expertise to the project if such expertise is going to be beneficial to students and the project.

### **Theoretical lens - Academic Identity**

The question of academic identity among postgraduate supervisors arises as to answer the notion of fit. How do I fit in or become part of the academe? Costa, (2015) speculates that the question of fit into the academe has profoundly been and continues to be troubling many academics. Many, like De Jager, Monnapula-Mapesela, and Ntshoe, (2017), Jita, Mokhele, 2013, Ntshoe and De Villiers, (2008), have postulated on the scholarship of teaching and learning to answer the question of fit to provide hindsight into the question on how academics invariably should constitute a community of practice. The community of practice, coherently referred to as a unitary body of academics who expands and develops their own professional identities and learning experiences through meaningful experiences and development with their students. On the one hand, Mahlomaholo, (2014, 2015), Mahlomaholo, Nkoane and Ambrosio, 2013 have investigated the question of academic identity through access and redress in a sustainable learning environment in a South African context. Through their endeavours, this scholarship forged within an emancipatory research aimed at empowering Black academics at South African Universities to develop distinct academic identity that is couched in redress and social justice.

In this current study, a transition from self-academic identity to a collective academic identity has become a focus of doctoral pedagogy. Academics, to fit-in, to be accepted and to be celebrated must be characterized with certain traits such as teaching, community engagement and research (Hao, 2016). It appears that research which includes publication and supervision is more celebrated than the two aspects of being in academia. On the same breadth, it may be freely argued that the academic identity of those who do not supervise nor publish is greatly doubted and tarnished, hence the notion, '*publish or perish*'. Introvertly, academic identity is a construct for reward, punish or banish those of intelligentsia, as foreseen by Pierre Bourdieu's notion of *homo academicus* (Wacquant, 1990). *Subtly put, Bourdieu demonstrates that to be a part of the homo academicus, one has the responsibility of power, but also a sphere of power in which reputations and careers are made, defended and destroyed.*

Bourdieu makes a connection between cultural capital and the habitus and argues that that the workforce on the European level can be maintained if this reasoning is adopted in schools (Farrell 2010). Wacquant, (1990) points that the theory of habitus is premised on the notion that the dominant habitus is transformed into a cultural capital which reproduces the hierarchical structures in the society. The notion of fit, an inherent requirement, for the academics is for them to immerse in the cultural capital to be recognized and cited which is referred to academic visibility, "the feel" for creating workforce that can compete in the global economy. It seems that Bourdieu makes it apparent that cultural capital is a transferable commodity which can take monetary form. For an academic to be a resident or habitus must embody the elements of academic immersion in the cultural capital and fiercely compete (Alkhateeb, Romanowski, Du & Cherif, 2020, Schulze, 2015). For this purpose, Higher Institutions of learning has chancellorships for research and innovation to ensure that this cultural capital is entrenched to maximize the monetary grants they receive from their governments. Thus, Wadesango, (2014) argues that research productivity as a cultural capital has a weighty bearing on tenure decisions, promotions, salary increases and mobility. This process has been referred by Bourdieu as a systemic cultural and societal hierarchical reproduction game. Consequently, it is beyond reproach that academics in the different university faculties feel the heat to maintain their academic visibility through regular publication of their research outputs, otherwise, their careers might suffer punitive banishment from the habitus (Vurayai & Ndfirepi, 2020).

### **Research question**

The research question which guided this research study was, how do doctoral supervisors' view the processes of building their research identity at one University of Technology (UoT) in South Africa.

### **Methodology**

This research study is qualitative in nature which is focused on the subjective experiences of the doctoral supervisors. A phenomenology research design is employed in this study. The design emphasizes on experiences of doctoral supervisors who have experience of supervising doctoral students (McNeil 2015). This study is also situated within the transformative paradigm. Transformative paradigm is appropriate for this study because it focuses on research framework, recognise those dimensions of diversity that associate with power differences and building trusting relationships (Mertens, 2005, 2012), also to empower people to act and transform others around them in different and positive way (Chilisa & Kawulich, 2012).

### **Participants and selection of participants**

Population for this study consisted of all doctoral supervisors at one University of Technology in South Africa. Experienced researchers were selected especial who are already undertaking the doctoral supervision. The sample size consists of 10 participants. The researchers decided to sample the study by only focusing on supervisors at one campus where the authors are based. The participants were easily accessible. The author used the emails list of the targeted participants. The researchers sent out emails to sixteen (16) possible participants. Participants emails were obtained from the institutional email list. The researchers tracked the emails to be notified when targeted participants opened their emails. Out of sixteen (16) only twelve (12) opened their emails within the first week after the emails were sent out. The researchers made a follow-up by calling all participants and asking participants about their availability of taking part in the study. Other participants could not be reached on their phones even after the researchers left several messages, they did not call back. Of the twelve who answered their phones during the follow-up, however, only ten (10)

### **Method of data collection**

To ensure that participants provide as much information as they could possibly give on deconstructing doctoral supervision the research adopted open ended-questionnaires as the researchers took place during the difficult time of the COVID-19. Open-ended questionnaires for this study were adapted from the Crest training course for supervisors of doctoral candidates at African Universities. Questions used to be asked to the participants and responses were shared in the course forum. The researcher tailored open-ended questionnaires to the doctoral supervisors. The researcher piloted the open-ended questionnaires by giving them one professor to go through them, give his inputs and to check whether there were any challenges in answering those questions. He provided advice on simplifying questions for those who might not understand them. Thereafter open-ended questionnaires were distributed to the possible participants through the participants emails and still made phone calls to make the participants aware that the open-ended questionnaires were already being distributed and they can access them. The researchers decided to use this method of distributing open-ended questionnaires because it is convenient and mitigated difficulties in accessing participants. Through this method of collection enabled participants the freedom of fully expressing themselves on the issue under study.

### **Data analysis**

Study adopted thematic analysis to unlock the information hidden in the raw data and transform it into something useful or meaningful (Gay, Mills & Airasian, 2009). The thematic steps as suggested by Braun and Clark (2006), was implemented which precincts on breaking down of the transcribed data from responses on open ended questionnaires into themes. Themes were constructed through related issues that appeared to be more dominant and those become categories for analysis (Fereday & Moi-Cochrane, 2006). Thematic analysis further enabled the researcher to read the data repeatedly, breaking it down and building it up again through the process of developing themes and categories as suggested by Terre Blanche, Burrheim and Painter 2006; Vaismoradi, Jones, Turumen and Snelgrove, 2016). This method helped the researcher to interpret and understand the connection that the participants have on doctoral supervision.

### **Ethical consideration**

To engage in research that is authentic and where participants are protected the researcher applied for ethical clearance at the institutional research committee. Conditional ethical clearance has been provided by the Faculty of Research and Innovation Committee. The researcher made participants aware of the nature, purpose, usefulness, procedure, confidentiality and anonymity as well as voluntary nature of the participation in this study. It was also communicated with the participants that; they have a liberty of withdrawing from the survey at any given time once they feel uncomfortable. To safeguard the protection of the participants, the researcher, further represents participants with pseudonyms in the data as discussed under the data presentations and analysis below: Doctoral Supervisor (DS1; DS2; DS3; DS4, DS5, DS6, DS7, DS8, DS9 and DS10).

### **The data presentation and analysis**

Data for this study/ was presented following the research objectives. This was done by deconstructing doctoral supervisors' views on building a research identity at the Central University of Technology and also the possible, effective and qualitative support that supervisors could provide to doctoral candidates during the doctoral process. Through several readings of the participant's responses the researcher identified patterns emerging. Therefore, main themes were generated. Below are the main themes identified from the data obtained through open-ended questions:

#### **Theme 1: Attributes on building research identity**

From the first objective participants were expected to ascertain their understanding of, and views on building a research identity for doctoral supervisors. All participants seemed to understand the benefits, or the attributes needed for a supervisor on building a research identity. All attributes are the foundation of good supervision (Bouhey & McKenna, 2020). Good supervision emanates from the roles that supervisors play in their own reputation in being active in creation of knowledge within their individual academic field. This is revealed in the following statements:

**DS2:** *“It is about publish articles in accredited journals. Presenting papers at the national and international conference. It is about being known in the field of specialisation. Supervisor should lead by example coaching students through the work that was published”.*

**DS1:** *“researcher’s preferences in terms of philosophical stance, research approach, research topics and research methodology. Similarly, researcher’s cultural and social environment”.*

**DS5:** *“it is about building a good research profile through publication”.*

The findings reveal that doctoral supervisors understand that building research identity is about being known and gaining popularity through an individual partaking/actively involved in research activities. Furthermore, of being grounded and being scholarly in their own field (Bouhey & McKenna, 2020). Also, supervisors gain respect and recognition among students and other supervisors by extensively publishing and being known within the research community. Participants believe in growing and developing research knowledge, skills and self-discipline (Lyakurwa, 2007; Cross and Backhouse, 2014).

### **Theme 2: Development opportunities for doctoral supervisors**

Building research identity has to be an open attribute for learning and taking part in all the activities of research to become a good supervisor (Bouhey & McKenna, 2020). Botha, Kuria, Özgören and Wilde (2020) strongly support the linkages between universities, communities, industry and government to ensure that research addresses relevant development needs of society. Participants below narrow it down by saying it is all about leaning from other supervisors, institutions, or countries. Working towards being an expert in one field, is by learning more of the field from other researchers’ work and acknowledging weakness by engaging others to help me (Frick, 2020).

**DS10:** *“By being exposed to as many students and research articles, conferences and training opportunities as possible. Likewise, by engaging with other supervisors to learn and develop as an individual”.*

Regarding how as supervisors develop their research identity. Here supervisors reiterating on supervising only within their own field and supervising students in their discipline.

**DS8:** *“I conduct research that is applicable to my discipline. I also supervise students whose topics are in my discipline”.*

Moreover, other supervisors indicate that they build their research identity by being reading more explicitly and partnering and sharing of their latest findings in research.

**DS5:** *“reading more articles and books. Form partnership with other researchers. Sharing with my counterparts in terms of new developments in research. Even if we are making the choices but students always come with the idea of what they want to pursue”.*

Some supervisors felt that due to the smaller size of the university, they find themselves supervising what is not their field of study. In situations like these they are likely to adopt the hybrid approach where they bring students’ topics towards their field of specializations.

**DS3:** *“I try to follow a hybrid approach, linking the topics to the field of education psychology as far as possible so that I do not wander too far away of my field”.*

The development of supervisors through courses, training of any sort, workshops, mentoring and any form of awards is a relatively new approach to the universities and academic staff development (Kiley, 2011; Taylor & McCulloch, 2017; Lee, 2018). The approach is meant for innovation and competitiveness of supervisors with the aim of improving the

knowledge economy especially with the African region (Mouton, 2018). Botha, *et al*, (2020) attest that the delivery of more doctoral graduates would be through the process of well-prepared supervisors for the task. Being exposed and going through training produces a better researcher and helps one to become a good doctoral supervisor. Crest courses instill quality foundation through different ways of becoming quality supervisors.

The research conducted with participants from researcher's institution for this study has shown supervisors whom the researcher could co-supervise with and develop as a researcher. The findings indicate that some supervisors are compromising their fields of specialisation not because they want to but because the situation of the institution force them to Hybrid. Even when they hybrid they can learn new methodologies or even some aspects of the student's topic to become a better supervisor. The findings also show that being exposed to writing articles, presenting at conferences and partnering with other scholars improves the quality of supervision. If a researcher may avail him/herself to many diverse situations, experiences, and students, he/she may become more comfortable with a diverse range of research approaches and in the process of learning become more aware of individual personal preferences. In other situations, there isn't the luxury of supervising students whose topics fall precisely within the area of their research interest and expertise. Participants are in support of being active in research through networking and engaging with other researchers.

### **Theme 3: Mentoring doctoral students on building research identity**

Participants favour the view of mentoring their students to find their voice in research with an aim of marking sure that they also become good researchers. Participants are further interested in improving students writing skills. Participants reiterate on motivating and mentoring of students to be free and learn effectively knowing that they have support structure. Participants also said that encouragement to be researchers is critical in academia.

**DS4:** *"that they should find their voices and have a belief that they too could be researchers with a polished sense of writing style"*.

**DS5:** *"it is important to motivate your students and check the interest of your students. As a supervisor it is also important to do mentorships and focus on developmental programme for your students. To encourage your students to attempt the developmental programme and engagement with another scholar providing the students with relevant information is very important"*.

Reading extensively in a doctoral study is critically important for doctoral students to become scholars, to promote confidence and independence in decision making (Bougey, & McKenna, (2020).

**DS6:** *"Doctoral students should read about a lot and become true scholars. They should be able to make in depended decisions on how they would like to approach their study, but it should always be justified with evidence and critical reasoning. I try to assist my doctoral students to improve their critical thinking, reasoning skills and exposure to different arguments about a topic in order for them to become more aware of who they are as researchers"*.

The above response reveals that a lot of reading by students under the guidance of the supervisor develops a doctoral candidate into a true scholar. The participants favor the opinion of improving the quality through enabling students to make independent decisions on how they approach their research and flexibility to grow Hasgall, 2019 in Botha et al,( 2020). At certain point supervisors' scaffold.

**DS7:** *"I encourage students to publish their findings- and those who pursue a career in academics are motivated to delve deeper into their research field, expanding their knowledge and building up a wealth of knowledge by identifying research projects related to their field. I*

*also encourage students to become part of large projects with seasoned academics who are experts and who can mentor them”.*

From the objective in relation to the development of research identity on doctoral students' supervisors are aware of their role of supporting their students and nurturing them to be better researchers. This goes with giving information and nudging them to think in a certain way till the habit becomes their second nature. Doctoral supervisors are also in agreement of setting a platform that enables students to be critical thinkers. From the findings doctoral students need to be given sufficient freedom to explore on their own. The implication is that a true doctoral student is one who can exercise the freedom of exploring academic avenues on their own after they have been exposed. Boughey and McKenna (2020) suggested writing as part of learning. In other words, learning does not happen until one starts writing. That means supervisors here support students in using writing as a tool for learning throughout the research process. Writing does not come mechanically from one stage to the other, rather steps have to be followed having the supervisor on the side who is guiding through the process of writing. In this situation Boughey and McKenna (2020) suggested the supervisor to follow the following: Free writing, a reading journal, a research journal and informal emails.

### **Conclusion and Recommendation**

From the findings, it was concluded that the doctoral supervisors at the researched institution are working very hard to contribute to the knowledge economy and improvement of the quality of the university system. This is in line with Pierre Bourdieu's notion of cultural capital. Based on the findings doctoral supervisors acknowledge being exposed to diverse situations, experiences, students, and a diverse range of research approaches. Supervisors seem to be very good in guiding students towards the completion of their thesis but ignoring the relationship aspects and introducing doctoral students to the scholarly community at large. However, roles and responsibilities were not clearly known or even followed. Supervisors seem to struggle with the development of research identity which makes it difficult to impart the practices to the students. Low institutional capacity was experienced through Hybrid issues. Some do not want to engage in co-supervision, this adversely affects students who have a supervisor who might not be competent in all aspects of research. Majority of the supervisors are comfortable with their area of specialisation. Some do not even want to supervise in areas that they are not familiar with. There are however other supervisors who are linking their doctoral students with their research associates to learn from the experienced scholars, provide supportive structure and create a trust relationship with their students. But international information is still lacking.

### **References**

- [1] Alkhateeb, H., Romanowski, M. H., Du, X., and Cherif, M. (2020). The reconstruction of academic identity through language policy: a narrative approach. *Asian Englishes*, 1-17.
- [2] Arnolds, C.A., Stofile, R.N., and Lillah, R. (2013). Assessing the outcomes of the higher education mergers in South Africa: Implications for strategic management. *Acta Commercii*, 13(2):1-11.
- [3] Barrie, S. (2004). A research-based approach to generic graduate attributes policy. *Higher Education Research and Development*, 23(4), 261-275.  
<https://doi.org/10.1080/0729436042000235391>

- [4] Bastalich, W. (2015): Content and context in knowledge production: a critical review of doctoral supervision literature, *Studies in Higher Education*, DOI: 10.1080/03075079.2015.1079702
- [5] Bastalich, W. (2017) Content and context in knowledge production: a critical review of doctoral supervision literature, *Studies in Higher Education*, 42:7, 1145-1157
- [6] Botha, J. (2020). "The nature, purpose, standard and format of the doctoral degree". Course material of Module 2 of the DIES/CREST Training Course for Supervisors of Doctoral Candidates at African Universities. Stellenbosch University.
- [7] Botha, J., Kuria, M., Özgören, M., and Wilde, M. (2020). Quality doctoral education in Africa: a question of setting the right standards? The global scholar: Implications for postgraduate studies and supervision. SUNMEDIA.
- [8] Boud, D., and Lee, A. (2005). Peer learning' as pedagogic discourse for research education. *Studies in Higher Education*, 30(5), 501-516 Course material of Module 2 of the DIES/CREST Training Course for Supervisors of Doctoral Candidates at African Universities. Stellenbosch University
- [9] Boughey, C and McKenna, S. (2020). "Roles and responsibilities of the supervisor and student". Course material of Module 3 of the DIES/CREST Training Course for Supervisors of Doctoral Candidates at African Universities. Stellenbosch University
- [10] Chilisa, B. and Kawulich, B. (2012). Selecting a research approach: Paradigm, methodology and methods. [https://www.researchgate.net/profile/Barbara\\_Kawulich/publication/257944787\\_Selecting\\_a\\_research\\_approach\\_Paradigm\\_methodology\\_and\\_methods/links/56166fc308ae37cfe40910fc/Selecting-a-research-approach-Paradigm-methodology-and-methods.pdf](https://www.researchgate.net/profile/Barbara_Kawulich/publication/257944787_Selecting_a_research_approach_Paradigm_methodology_and_methods/links/56166fc308ae37cfe40910fc/Selecting-a-research-approach-Paradigm-methodology-and-methods.pdf) 10/04/2021.
- [11] Costa, C. (2015). Outcasts on the inside: academics reinventing themselves online. *International Journal of Lifelong Education*, 34(2), 194-210.
- [12] Cotterall, S. (2013). More than just a brain: Emotions and the doctoral experience. *Higher Education Research and Development*, 32, 174-187. <https://doi.org/10.1080/07294360.2012.680017>
- [13] Cross, M. and Backhouse, J. (2014). Ecaluating doctoral programes in Africa: context and practices. *Higher education policy*, 27 155-174.
- [14] De Jager, H. J., Monnapula-Mapesela, M. L. E., and Ntshoe, I. M. (2017). Scholarship of teaching and learning in the context of a University of Technology: a case of the central university of technology, Free State. *Journal for New Generation Sciences*, 15(1), 243-259.
- [15] Development Bank of South Africa (DBSA). 2010. DBSA Annual Report. Pretoria. Government press.
- [16] Farrell, L. (2010). "Pierre Bourdieu on European identity: Theories of habitus & cultural capital." *Social and Political Review* 20, no. 1: 107-15.
- [17] Frick, L. (2020). "Supervisory models and styles". Course material of Module 4 of the DIES/CREST Training Course for Supervisors of Doctoral Candidates at African Universities. Stellenbosch University.
- [18] Grant, B. and Manathunga, M. C. (2011). Supervision and cultural differences: rethinking institutional pedagogies. *Innovations in Education and Teaching International*, 48:4, 351-354.
- [19] Hao, Z. (2016). In search of a professional identity: higher education in Macau and the academic role of faculty. *Higher Education*, 72(1), 101-113.

- [20] Ives, G., and Rowley, G. (2005). Supervisor selection or allocation and continuity of supervision: PhD students' progress and outcomes. *Studies in Higher Education*, 30(5), 535-555.
- [21] Jita, L. C., and Mokhele, M. L. (2013). Shifting research identities through communities of practice: Reflections on a faculty development programme for teacher educators in South Africa. *Progressio*, 35(2), 126-142.
- [22] Kiley, M. (2011). "Developments in Research Supervisor Training: Causes and Responses." *Studies in Higher Education* 36 (5): 585–599.
- [23] Lee, A. (2018). How can we develop supervisors for the Modern doctorate? *Studies in higher education* 43:5, 875-890.
- [24] Lyakurwa, W. (2007) 'The Experience of AERC in Research, Capacity Building, and the Development of Collaborative Training Programs', in F. Bourguignon, Y. Elkana and B. Pleskovic (eds.) *Capacity Building in Economics Education and Research*. Washington DC: The World Bank, pp. 135–159.
- [25] Mahlomaholo, S. (2013). On bricolage and the creation of sustainable Postgraduate learning environments. *TD: The Journal for Transdisciplinary Research in Southern Africa*, 9(3), 379- 392.
- [26] Mahlomaholo, S. (2015). Creating effective postgraduate learning environments: An analysis of an intervention from realist social theory. *Journal of Higher Education in Africa/Revue de l'enseignement supérieur en Afrique*, 13(1-2), 229-243.
- [27] Mahlomaholo, S., Nkoane, M., and Ambrosio, J. (2013). Sustainable learning environments and social justice comment. *TD: The Journal for Transdisciplinary Research in Southern Africa*, 9(3), V- XIII.
- [28] Manathunga, C. (2009). Research as an intercultural 'contact zone'. *Discourse: Studies in the Cultural Politics of Education*, 30(2), 165–177.
- [29] McCormack, C. (2004). Tensions between student and institutional conceptions of postgraduate research. *Studies in Higher Education*, 29(3), 319-334.
- [30] McKenna, S. (2017). Crossing conceptual threshold in doctoral communities. *Innovations in Education and teaching International*, 54(5), 458-466.
- [31] McNeil, B. (2015). A phenomenological study exploring the leadership development experiences of academic research library leaders. PhD theses, University of Nebraska.
- [32] Mertens, D. M. (2005). *Research and evaluation education and psychology: integrating diversity with quantitative, qualitative and mixed methods*. London: SAGE publishers.
- [33] Mertens, D. M. (2012). Transformative mixed methods: Addressing inequities. *American Behavioral Scientist*, 56(6) 802–813. <https://doi.org/10.1177/0002764211433797>
- [34] Mouton, J. (2018). 'African science: A legacy of neglect', in Beaudry, C., Mouton, J., and Prozesky, H. (eds) *The next generation of scientists in Africa*. Somerset-West: African Minds, pp.2-12.
- [35] Mouton, J. and Frick, L. (2020) "The need for the doctorate and the state of doctoral studies in Africa". Course material of Module 1 of the DIES/CREST Training Course for Supervisors of Doctoral Candidates at African Universities. Stellenbosch University.
- [36] Moxham, L., Taylor, E., Dwyer, T., Lauder, W., Stephens, M., Antoniou, C., Roxburgh, M., Reid-Searl, K., Chan, A.E., and Catherine Fuller, C. (2016). Articulating expectations about supervision: Getting it right at the start of the journey. *Postgraduate Supervision-Future Foci for the knowledge society*. Stellenbosch: SUN PRESS.

- [37] Muller, J. (2009). "Forms of Knowledge and Curriculum Coherence." *Journal of Education and Work* 22 (3): 205–26.
- [38] Ntshoe, I., and De Villiers, P. (2008). Steering the South African higher education sector towards transformation. *Perspectives in Education*, 26(4), 17-27.
- [39] Schulze, S. (2015). The doctoral degree and the professional academic identity development of female academics. *South African Journal of Higher Education*, 29(4), 260-276.
- [40] Sverdlik, A., Hall, N. C., McAlpine, L., and Hubbard, K. (2018). The Ph.D. experience: A review of the factors influencing doctoral students' completion, achievement, and well-being. *International Journal of Doctoral Studies*, 13, 361-388.
- [41] Taylor, S., and McCulloch, A. (2017). "Mapping the Landscape of Awards for Research Supervision: A Comparison of Australia and the UK." *Innovations in Education and Teaching International* 54 (6):601–614.
- [42] Vurayai, S., and Ndofirepi, A. P. (2020). 'Publish or perish': implications for novice African university scholars in the neoliberal era. *African Identities*, 1-14.
- [43] Wacquant, L. J. (1990, December). Sociology as Socioanalysis: Tales of "HomoAcademicus"[By Pierre Bourdieu]. In *Sociological Forum* (pp. 677- 689). Eastern Sociological Society.
- [44] Wadesango, N. (2014). Publish or perish: Impediments to research output and publication. *International Journal of Educational Sciences*, 6(1), 57-63.