

# Micro-credentialing mentoring: Development of an innovative Mentoring Competency Framework

## Authors:

Ajeevsing Bholoa, Mauritius Institute of Education;  
Radha Rani Baichoo, Mauritius Institute of Education;  
Bhima Ramkissoon, Mauritius Institute of Education;  
Steve Sider, Wilfrid Laurier University, Ontario

## Abstract

*The purpose of this paper is to present a mentoring competency framework (MCF) developed to support the professional learning of in-service and pre-service secondary school teachers within a micro-credential course. The MCF is part of the micro-credential that is designed to deepen the mentors' (in-service teachers) understanding and upskilling of mentoring in view of supporting mentees' (pre-service teachers) professional development. The framework is drawn from the theoretical lens of mentoring as a developmental and collaborative process of instruction and psychological support, underpinned by socio-constructivist principles aimed to benefit both the mentors and the mentees in a reciprocal learning process. The educational design research methodology is employed as a two-phase approach to develop the micro-credential for mentoring. This paper introduces the MCF, the first phase of the design-based research, as an innovative frame to enhance the reciprocal learning process so that while the mentees are empowered by gaining knowledge, skills and experience that enable them to develop the necessary competencies to teach, the mentors learn both through self-reflection and critical reflection on their own practice, and from mentees through meaningful engagement. By broadening the context of mentoring beyond its classroom and school levels and didactic strategy to another level of educational strategy through the agency of a micro-credential, we reveal how the MCF has the potential to guide educational contexts and institutions where there is a desire to foster the mentoring of prospective and novice teachers by experienced ones.*

*Key words: Mentoring, mentoring competency framework, reciprocal learning, micro-credential, educational design research*

## 1. Introduction

Mentoring is a shared two-way opportunity for learning and growth between the mentor and the mentee (Mathipa and Matlabe, 2016). The main purpose of mentoring in education is to support the professional learning of in-service and pre-service teachers to have positive impacts on teaching (Whatman, 2019). Moreover, mentoring can have far reaching influence in developing teacher competencies in the 21<sup>st</sup> century (Li, 2018). While it is the responsibility of teacher education institutions, like the Mauritius Institute of Education (MIE), to provide professional teaching courses to pre-service teachers, a more significant responsibility lies with the in-service teacher mentors to provide on-the-job mentoring that promotes the development of the necessary skills for their pre-service teacher mentees to excel within the teaching profession (Tsotetsi and Mile, 2021) and the ever-changing didactic environment.

Mentoring is recognized as a predominantly essential practice during professional placement of prospective teachers which is known as the School-Based Experience (SBE) in the Mauritian context. It is a central requirement for assessing teacher effectiveness in the B. Ed (Hons) Full Time Secondary programme offered by the MIE. The B. Ed Full Time students at the MIE are registered as student educators and have no teaching experience. In this regard, they need to be supported by effective mentors at school during their SBE so that they engage in authentic learning, develop, and apply a range of the required professional knowledge, skills and dispositions for teaching in the 21<sup>st</sup> century. Each mentor has a well-defined set of roles and responsibilities and is also involved in the assessment of the student. Thus, the mentoring exercise offers the possibility for the student educators to develop a rigorous understanding of teaching and related requirements at school level through continuous practice in teaching in real classrooms and engagement in school activities under the guidance of an experienced educator. For the facilitation of this process, a mentor is appointed for each student educator at the selected school through an MIE-School agreement. Therefore, mentors play an important role in enabling the self-development of mentees, and for a positive mentee experience, it is vital that mentors are equipped with the relevant competencies to be effective (Whatman, 2019; Virtic, Du Plessis and Sorgo, 2021).

However, the mentoring practice and benefits to the B. Ed students on placement at school have been reported to be varied and with different degrees of engagement. Appointed mentors have so far been offering their support on a voluntary basis to MIE students based on their expertise and own conceptualization and understanding of the requirements of the teaching practicum component of the B. Ed programme. In addition, mentoring as an activity has been widely overlooked in terms of recognition for professional development and career path of mentors.

To address aspects of this phenomenon, a micro credential for mentoring is being offered to mentors as a continuous professional development opportunity. Micro-credentialing mentoring would thus provide in-service teachers with the opportunity for professional growth and advancement of mentoring competencies in their respective subject areas and allow them to earn recognition of their experiential learning. The mentoring course offered is in line with government policies and goals for achieving quality in teaching and learning, and in response to the imperatives of recent reforms initiated in the education sector as well as to meet the expectations of UNESCO's agenda 2030.

The development of the MCF as a requirement of the micro-credential course emanates from an effort to align mentoring practices with international standards while bearing in mind contextual needs and limitations. The MCF has also been customised to meet local needs, in terms of duration and content of the offer. The design and development of the MCF has also been made possible with the collaboration of the Commonwealth of Learning (COL) to address a pressing need during the COVID-19 pandemic and ensuing lockdowns for an alternative mode of delivery through asynchronous and self-paced teaching and learning.

## **2. Literature Review**

Mentoring is a key strategy for assisting beginning and/or student educators to successfully navigate their way into the profession with the support of more experienced educators (Beutel and Spooner-Lane, 2009). The nature of support to mentees is categorized into instructional or career related and psychological support (Ng, 2012). With the emergence of new perspectives, mentoring is viewed as a developmental and collaborative process of support underpinned by a symbiotic relationship that benefits both the mentor and mentee (Hobson et al., 2012). The importance of mentoring in facilitating learning is supported by Vygotsky's theory of socio-constructivism, which informs aspects of collaborative learning and outlines the development of both individuals, including the building of academic success, communication skills, inter/intrapersonal skills, and problem-solving, amongst others (West, 2016). In addition, the nature of mentoring has changed over the years with a shift from an individual to a shared focus (Paris, 2013). New mentoring approaches are crucial to meeting the needs of the 21<sup>st</sup> century (Li, 2018; Tsotetsi and Mile, 2021). Teachers in the 21<sup>st</sup> century education institutions should possess competencies to adapt to the changing nature of education characterized by the requirements of a new generation of learners, different learning needs, changes in the curriculum, and new technology-enabled learning, amongst others. As a result of emerging changes, there is a need for professional learning of both the in-service and pre-service teachers.

Newer ways of approaching mentoring imply a mentor-mentee relationship that allows for lesser burdens of power and authority for a broader scope for learning and development (Mullen, 2016). From the instrumental to the developmental view, the personal growth, emotions and self-esteem of the mentee are addressed while they are prepared for career development (De Vries, 2011). A model that promotes learning from and with one another through a dynamic exchange of knowledge, advice, experience, support and guidance is called reciprocal mentoring (Mathipa, and Matlabe, 2016; Peterson and Ramsay, 2021). A substantive review of literature highlights the significance of reciprocity and reciprocal learning relationships in the development of mentors and mentees (Sider, 2019). Bishop & Webster (2021) advocate the development of a new collegial relationship, greater agency and decision-making, lessened burden of navigating the differences, which indicate a strengthened conviction to engage in the learning process. With a shifted concern about power over issues to a strength-based power of existence, Peterson and Ramsay (2021) describe mentoring as co-learning. Central to this practice is critical dialogue, sharing of personal narratives and reflection on each other's experiences that evoke a deep emotional connect and transformative journey. The mentees are empowered by gaining knowledge, skills, support, guidance and assistance that enable them to develop the necessary competencies to teach and attain success. On the other hand, mentors gain experience and insight from the mentoring process into how they can plan effective mentoring programmes and employ new mentoring approaches to address the needs of mentees more effectively (Mathipa and Matlabe, 2016). Mentors learn both through self-reflection and critical reflection on their own practice, and from mentees by engagement in meaningful conversation. Positive mentoring interactions are important to achieve successful mentoring outcomes in three most important developmental areas, namely, intellectual, identity-related and socio-emotional relationships (Schenk et al., 2019).

## **3. Methodology**

A competency is a thorough and specific set of skills, knowledge, attributes and behaviours that enables individuals to perform their jobs successfully (Ali et al., 2016). Competencies are identified and placed in a competency framework that constitutes the required abilities, indicators and behaviours or expectations that enable individuals to clearly understand their job roles. However, this MCF not only maps with the requirements of the teaching practicum of the B. Ed programme, but also aligns with existing micro-credential frameworks and ecosystems (Chakroun & Keevy, 2018), thus representing an innovative twist to the traditional mentoring activity. Hence, an educational design research-based approach was deemed appropriate for developing an innovative MCF (Reeves, 2006; McKenny and Reeves, 2019). As pointed out by McKenny and Reeves (2019):

*Educational design research blends scientific investigation with the systematic development and implementation of solutions to educational challenges ... to craft effective solutions to the complex challenges facing educational practitioners. At the same time, the research is carefully structured to produce theoretical understanding that can serve the work of others.*

Figure 1 depicts the two-phase design research approach used in the project.

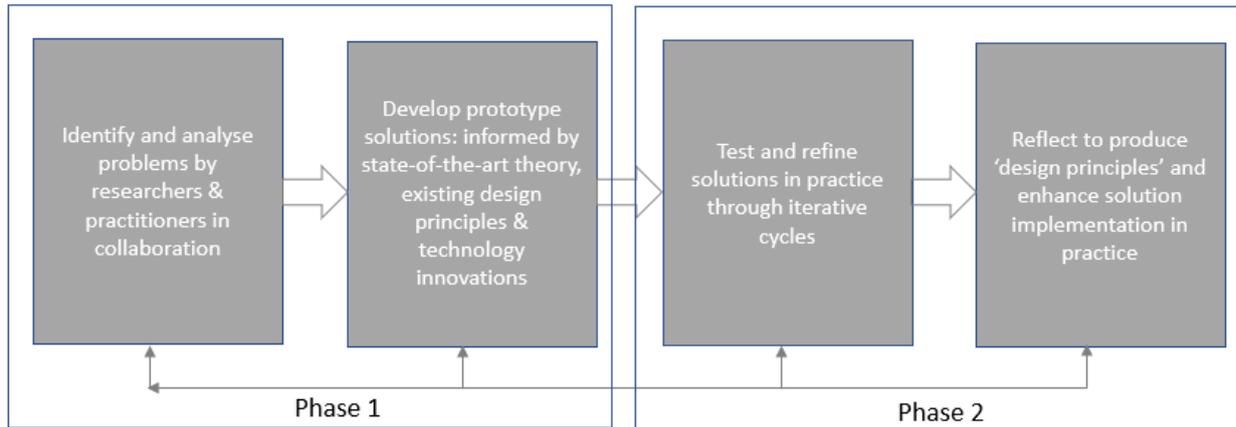


Figure 1: Educational design research approach

The first phase (Phase 1) acts as the theoretical and empirical foundation for the development of the mentoring competency framework and the prototyping of the micro-credential. Phase 2 of the design-based research methodology deals with the assessment and reflective component. The main focus of this paper is on Phase 1 and to highlight the developmental process of the MCF.

#### 4. Development of the mentoring competency framework

Micro-credentials are digital certifications which assess a participant’s proficiency in competencies rather than learning in a specific skill or a set of skills and which can be earned through micro learning programmes. Micro learning is a theory of instructional design that suggests that people learn more effectively if information is delivered in small units that are easy to understand and apply (Habitzel, et al. 2006). The contents are thus broken into small teaching units and micro-credentials are often offered through online and self-paced modes. The creation of a “micro-credential product” results from the overlap of (i) a taxonomy, (ii) a “Skills and Capability Framework” and (ii) a micro-credential design methodology and principles (see Figure 2).

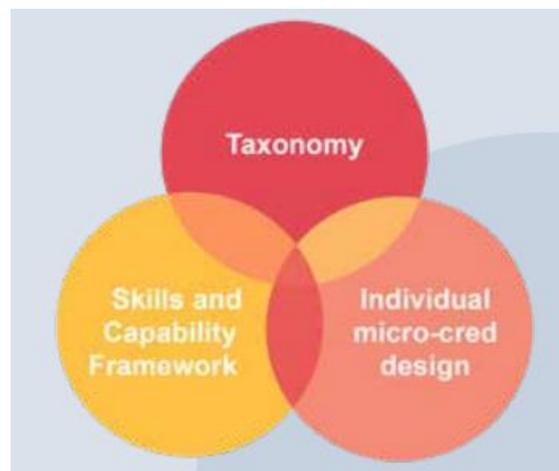


Figure 2: Components for creating micro-credential (COL, 2019).

In particular, this paper focusses on the “Skills and Capability framework” which ‘*provides the long view or the master plan for all the skills, competencies and personal attributes the issuing institution intends to offer. It acts as the guiding star for mapping each micro-credential to core themes and capabilities.*’ (COL, 2019, p. 6).

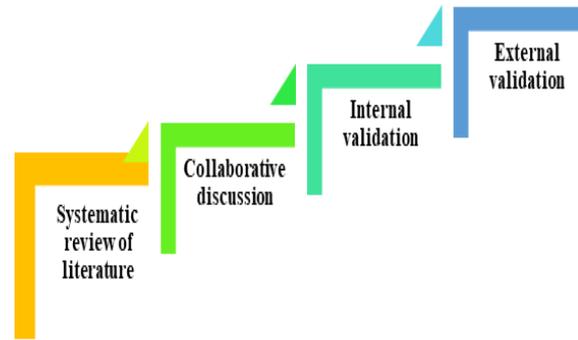


Figure 3: Approach in the development and validation of the MCF

In line with the requirements of the design research methodology (Phase I), the development and validation of the MCF proceeded cumulatively through an initial systematic review of literature in the field. This was followed by collaborative discussions and internal validation of selected key elements by MIE team members. These key elements have been identified from a synthesis of several existing competency frameworks, namely, the Alberta Government APS Competency model (2015), the Alberta Education Competencies (2016) and the State of Victoria Mentoring Capability Framework (2019). Subsequently, the MCF was revised and refined following external validation by COL (see Figure 3).

The final core elements of the MCF resulting from the process described above are (i) knowledge/ intellectual competencies, (ii) skill competencies and (iii) disposition competencies. We unpack the core competencies of this framework into four professional domains (see Figure 4). Furthermore, our framework has been guided by the reciprocal mentoring process, advocated by Mathipa and Matlabe (2016), and Peterson and Ramsay (2021). We describe the four domains in the following section.



Figure 4: Mentoring competency framework

#### 4.1 Professional Identity

Professional identity relates to the development of long-term capability and intellect of self as mentors. It refers to long-term commitment to engage with theories on mentoring and reflection in and on mentoring practices. Table 1 shows the competency that has been identified under the professional identity domain and also provides a description of behaviours necessary for attainment of success within each domain.

Competency	Competency Description	Competency Indicators
Specialized development of self	<p>Description of</p> <ul style="list-style-type: none"> <li>• how practising educators understand mentoring and see themselves as effective mentors in the teaching profession</li> <li>• how they construct new knowledge on mentoring roles that engage them in reflection and reflexivity to revisit their beliefs and previous practices, and rethinking of their responsibilities to suit current contexts</li> <li>• how they articulate their personal growth through face-to-face or virtual meetings</li> <li>• how they demonstrate an understanding of the self and development of personal conceptual constructs, style and professional identity</li> </ul>	<ul style="list-style-type: none"> <li>• Analyzing theories on mentoring, mentoring definitions, functions, approaches, models, mentoring process and ethics in mentoring</li> <li>• Identifying the wide range of mentoring roles and responsibilities</li> <li>• Recognizing the importance of mentors as role models and ability to influence others on the importance of grooming and value of learning.</li> <li>• Reflecting on (other) emerging roles (as leaders and change agents) and (re-)aligning responsibilities for effective mentoring practice</li> <li>• Continuously engaging in research to update the self on aspects relevant to mentoring and practice</li> <li>• Discussing own mentoring responsibilities and commitments in own context, identifying gaps and strengths and appreciating mentoring as professional and developmental learning</li> <li>• Evaluating own thoughts, beliefs and actions/behaviours in mentoring</li> <li>• Examining challenges in 21st Century impacting mentoring</li> <li>• Charting a mentoring growth/progression through critical reflection on own beliefs, perspectives of mentoring, roles and practice</li> </ul>

Table 1: Professional Identity domain

#### 4.2 Professional Knowledge and Skills

Professional knowledge and skills address the enhancement of the professional learning of the mentors through ongoing updating of subject area content knowledge and skills, and adaptation with innovative and creative practices in relation to teaching, assessment and pedagogy to promote the intellectual development of mentees. The associated competencies and descriptions are provided in Table 2.

Competency	Competency Description	Competency Indicators
Commitment in the development of self and of mentees	<ul style="list-style-type: none"> <li>• Fostering one's own professional growth and the growth of mentees to build a promising and sustainable career and increase professionalism in subject areas and at school</li> </ul>	<ul style="list-style-type: none"> <li>• Aligning with the National Curriculum Framework (NCF) Secondary 2016 reforms/provisions/policies on innovation and expectations of B. Ed Teaching Practicum.</li> <li>• Analysing Cambridge International Examinations (CIE) Reports</li> <li>• Using language and tasks appropriate to the grade level, curriculum, content and objective of the class</li> <li>• Keeping abreast with emerging issues in subject area teaching, pedagogy, assessment, and teaching practices that lead to seeking opportunities and providing advice for professional development of mentees</li> <li>• Demonstrating willingness to learn with and from each other</li> </ul>

<b>Innovation and creativity</b>	<ul style="list-style-type: none"> <li>Adaptation of both mentor and mentee to changing environment and conditions</li> </ul>	<ul style="list-style-type: none"> <li>Recognizing and generating opportunities to create and apply new ideas in classroom practice</li> <li>Taking risks and trying new strategies, assessments, tools and technology to enhance and improve practices of mentees</li> <li>Charting mentoring growth/progression through critical reflection and reflexivity in subject area teaching, assessment and pedagogy</li> </ul>
----------------------------------	---	--

Table 2: Professional knowledge and skills domain

#### 4.3 Professional Relationships

Proactively building networks, connecting and building trust in relationships with mentee(s) are the highlights of this domain. Building solid mentor-mentee relationships is important to promote an environment that favours learning together to achieve mentoring targets and goals. Nurturing such a professional relationship is considered one of the best ways to solve complex problems through effective communication and collaboration. In Table 3, the competencies related to this domain are described.

Competency	Competency Description	Competency Indicators
<b>Communication</b>	<ul style="list-style-type: none"> <li>Sharing of ideas through oral, written or non-verbal media.</li> <li>Engaging in formal and informal exchanges with mentees while also demonstrating respect, empathy and responsibility when communicating with others</li> </ul>	<ul style="list-style-type: none"> <li>Sharing of information formally and informally</li> <li>Expressing views and concerns in a constructive manner with the intent of understanding and resolving issues</li> <li>Demonstrating intra- and interpersonal skills.</li> <li>Actively listening to each other during conversations</li> <li>Providing constructive feedback and mutual learning</li> <li>Framing different types and levels of questions</li> <li>Building rapport during conversations and discussions</li> <li>Ensuring clear and transparent passing of messages</li> <li>Assessing one's own and mentee's learning progress during communication</li> </ul>
<b>Collaboration</b>	<ul style="list-style-type: none"> <li>Mentor-mentee working together collaboratively and productively, exchanging ideas, bringing in different perspectives to discussions and respecting views to achieve a common goal</li> <li>Willingness to compromise and value the contributions of others</li> </ul>	<ul style="list-style-type: none"> <li>Clearly and collaboratively identifying and articulating the mentoring goal/s</li> <li>Working collaboratively and supporting each other towards achieving common goals</li> <li>Creating and supporting a working climate of care, trust and flexibility to allow mutual sharing of ideas</li> <li>Demonstrating respect</li> <li>Exploring problems that affect relationships, identifying problem-solving strategies, and assessing options for resolutions</li> </ul>
<b>Problem-solving</b>	<ul style="list-style-type: none"> <li>Need to be proactive and take ownership for identifying issues that impact the mentoring process and relationship, and work collaboratively to understand each other, to explore the complexity and consequences of the issues, and find solutions/alternatives to continuously evolve and achieve the set goals</li> <li>As a result of emerging issues relating to individuals and practices at</li> </ul>	<ul style="list-style-type: none"> <li>Analysing issues relating to conflicts and miscommunication (criticisms) that emerge in changing situations or emerging issues during meetings, classroom observation and reflective moments</li> <li>Adapting and responding creatively, flexibly and realistically to challenges. Resolving conflicts in a positive and constructive manner.</li> <li>Evaluating problem-solving skills and styles on performance</li> </ul>

	schools, it is increasingly important that mentors and mentees (re)think new ways to approach these challenges.	<ul style="list-style-type: none"> <li>Charting mentoring growth/progression through critical reflection and reflexivity</li> </ul>
--	---	---

Table 3: Professional relationships domain

#### 4.4 Professional Dispositions

Professional dispositions extend beyond the acquisition of knowledge and skills to incorporate the development and improvement of values, beliefs, emotions, agency, attitudes, commitments, and professional ethics to improve learning and development of self as well as ensure the mentees' professional growth. The relevant competencies, descriptors and indicators are shown in Table 4.

Competency	Competency Description	Competency Indicators
<b>Development of effective dispositions</b>	<ul style="list-style-type: none"> <li>Mentors/mentees create a harmonious environment where each treats the other with care and respect</li> <li>They set goals related to well-being</li> <li>Mentors need to be more proactive in teaching, modeling effective dispositions and nurturing positive attitudes to ensure translation of same to mentees</li> <li>Showing empathy, building trust, managing emotions, and adhering to norms and professional ethics as other important aspects of mentoring</li> <li>Mentors/mentees draw upon their professional development to strive for personal excellence</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrating care and respect for mutual understanding and understanding of different points of view</li> <li>Promoting a culture of agency, co-agency and wellness</li> <li>Charting mentoring growth/progression through critical reflection and reflexivity</li> </ul>

Table 4: Professional dispositions domain

## 5. Conclusion

The aim of this paper is to extend our understanding of effective mentoring practices through the development of a mentoring competency framework using the educational design research methodology. The framework is part of the content of an ongoing micro-credential for in-service teachers at secondary school level. It meets the needs for effective mentoring of pre-service B. Ed students in their SBE. The micro-credential course intends to facilitate the recognition of mentoring as a professional activity as well as offer opportunities for capacity building and career progression. The MCF englobes four professional domains with their associated competencies, namely, (i) professional identity - specialized development of self, (ii) professional knowledge and skills - commitment in the development of self and mentees, innovation and creativity (iii) professional relationships - communication, collaboration, problem-solving and (iv) professional dispositions - development of effective dispositions. This paper contributes to the literature by emphasizing the professional growth of both mentor and mentee through a dynamic and reciprocal learning process. It also extends the current knowledge base by charting the development of an innovative approach to mentoring through a micro-credential course. The MCF will serve as the foundation for the content of the micro-credential that is currently under development by the MIE. It will be piloted and evaluated in Phase II of the process. An analysis of the effectiveness of the micro-credential in Mauritius has the potential to significantly impact and influence the development of similar mentoring projects in other parts of the world. This novel approach to mentoring could be a useful approach to ensuring that pre-service and in-service teachers are developing the competencies they require for teaching and learning in the global economy.

## List of References

- Ali, M. F. B., Ahmad, A. R. & Seman, A. A. (2017). Teachers' Competencies in Teaching and Learning History. *Open Journal of Social Sciences*, 5(8), 220-228.
- Beutel, D. A. & Spooner-Lane, R. S. (2009). Building mentoring capacities in experienced teachers. *The International Journal of Learning*, 16(4), 351-361.
- Bishop, K. & Webster, C. (2021). Reciprocal Mentorship as Trans-Systemic Knowledge: A Story of an Indigenous Student and a Non-Indigenous Academic Supervisor Navigating Graduate Research in a Canadian University. *Engaged Scholar Journal*, 7(1), 106–121.
- Chakroun, B. & Keevy, J. (2018). Digital credentialing: Implications for the recognition of learning across borders. Paris, France: UNESCO.
- Commonwealth of Learning. (2019). Designing and implementing micro-credentials: a guide for practitioners  
De Vries, J. (2011). *Mentoring for change*. La Trobe University. Australia.
- Habitzel, K., Märk, T. D, Stehno, B., & Prock, S. (2006) Microlearning: Emerging concepts, practices and technologies after e-learning. *Proceedings of Microlearning 2005 Learning & Working in New Media*. In Conference Series: Innsbruck University Press
- Hobson, L. D., Harris, D., Buckner-Manley, K. & Smith, P. (2012). The importance of mentoring novice and pre-service teachers: Findings from a HBCU student teaching program.
- Li, W. (2018) Mentoring for Teachers' Competencies Development in the 21st Century, *Advances in Social Science, Education and Humanities Research*, 215, 516- 522.
- Mathipa, E. R., & Matlabe, S. M. (2016). Mentoring: A Key to the Professional Development of the Teacher. *Journal of the International Society for Teacher Education*, 20(2), 36-47.
- McKenny, S. E. & Reeves, T. C. (2019). Conducting educational design research. Routledge/ Taylor Francis Group
- Mullen, C. A. (2016). Alternative mentoring types. *Kappa Delta Pi Record*, 52, 132-136.
- Ng, S. W. (2012). A framework for mentoring beginning teachers in Hong Kong. *International Proceedings of Economics Development and Research*, 47, 115-119.
- Paris, L. F. (2013). Reciprocal mentoring: Can it help prevent attrition for beginning teachers? *Australian Journal of Teacher Education*, 38(6). 136-157.
- Peterson, C. & Ramsay, D. (2021). Reducing the gap! Reciprocal mentoring between Black, Asian and minority ethnic (bame) students and senior leaders at the university of Gloucestershire. *Perspectives: Policy and Practice in Higher Education*, 25 (1). 34-39.
- Reeves, T.C. (2006). Design research from a technology perspective. . In: Van den Akker, J., Gravemeijer, K, McKenney, S. & Nieveen, N. (Eds). (2006). Educational design research. London: Routledge, 52-66.
- Schenk, L., Sentse, M., Lenkens, M., Nagelhout, G. E., Engbersen, G. & Severiens, S. (2019). An examination of the role of mentees' social skills and relationship quality in a school-based mentoring program. *American Journal of Community Psychology*, 65(149), 149-159.
- Sider, S. (2019). Peer coaching in a school in Cairo, Egypt: Implementation, barriers, and pathways to effective adoption. *International Journal of Mentoring and Coaching in Education*, 8(1), 37-51. <https://doi.org/10.1108/IJMCE-04-2018-0016>
- Tsotetsi, C.T. & Mile, S.A. (2021). Mentor-Mentee Experiences Amidst COVID-19: A Teaching Practice Case Study. *Research in Social Sciences and Technology*, 6(2), 76-95.
- Vrtič, M. P., Du Plessis, A. & Šorgo, A (2021). In the search for the ideal mentor by applying the 'Mentoring for effective teaching practice instrument'. *European Journal of Teacher Education*, DOI: 10.1080/02619768.2021.1957828
- Whatman, J. (2019). The value of mentoring for teacher learning. The education hub.
- West, A. (2016). A Framework for Conceptualizing Models of Mentoring in Educational Settings. *International Journal of Leadership and Change*, 4(1), 23-29.