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Emotions Revisited: Investigating the Impact of Mentoring on Well-Being and Emotional Intelligence in Professional Development

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Abstract

Emotions and well-being are two conditions for humans to thrive in the private and work sphere, especially in the context of lifelong learning in the 21st century. To transfer the perceptive state of well-being to any context, emotional intelligence competencies such as emotional awareness, emotional regulation, empathy, and resilience need to be applied. Research has demonstrated the link between emotional intelligence and leadership competencies and the connection between good leadership and school improvement. Consequently, emotions are recognized as a resource for educational leaders to impact and develop their and others' well-being in organizations. Mentoring has been identified to support the well-being of leaders in professional development contexts, while the connection between mentoring and emotional intelligence in leadership has not been extensively studied. Traditionally, mentoring exhibits a psychosocial and a developmental role, which makes it an ideal tool to include as a support structure in professional development programs.

This dissertation followed a context-centric approach, focusing on an underrepresented sector in research, vocational education and training in South Africa. To explore the connection between mentoring and well-being, a qualitative focus (study 1) using focus groups (N = 24) and interviews (N = 21) was used to understand middle-space leaders' perceptions of their participation in a mentoring framework integrated into a professional development program. Drivers and outcomes were identified, indicating that leadership presented a driver, whereas well-being presented the final outcome. Additionally, the potential of peer group mentoring was highlighted as a means to facilitate application to the workplace and a community of practice. Based on these results, study 2 explored the connection between mentoring and emotional intelligence development. Using a between-groups research design (N = 139), the Schutte Self-Report Emotional Intelligence Test was validated using exploratory and confirmatory factor analyses, and the Mann-Whitney U test investigated differences between the treatment and control groups in the identified factors. Mediated and moderated mediation analyses explored further variables such as participants' gender, occupational role, organization, and work sector. Moreover, descriptive statistics were used to answer which mentoring type was best perceived to support emotional intelligence development. Results indicate significant differences between the groups in the factor empathy difficulty, peer group mentoring to best

support emotional intelligence and the organizational factors to mediate five of the six identified factors. Gender moderated this relationship, where being male was associated with more trustworthy visionary and empathy.

The dissertation sheds light on the nexus between mentoring, well-being, and emotional intelligence. The results underscore that mentoring proves to be a viable tool to support middle-space leaders' well-being. The established link between mentoring and emotional intelligence development presents a new pathway in leaders' professional development. In the South African context, the findings demonstrate the potential of mentoring middle-space leaders to address educational disparities, promote well-being-focused leadership, and contribute to the development of a skilled and resilient workforce. Overall, the dissertation highlights the importance of developing emotional intelligence competencies to support individual and collective well-being and mentoring is a developmental tool to achieve this.

Zusammenfassung

Emotionen und Wohlbefinden stellen zwei Bedingungen für das individuelle Wachstum von Menschen im privaten und beruflichen Bereich dar, insbesondere mit Blick auf das lebenslange Lernen im 21. Jahrhundert. Um den Zustand des Wohlbefindends auf angewandte Kontexte zu übertragen, müssen emotionale Kompetenzen wie emotionale Bewusstheit, Emotionsregulation, Empathie, und Resilienz angewendet werden. Forschung hat den positiven Zusammenhang zwischen emotionaler Intelligenz und Führungskompetenzen sowie die Verbindung zwischen guter Führung und Schulentwicklung aufgezeigt. Deshalb werden Emotionen zunehmend als Ressource für Bildungseinrichtungen identifiziert, um das Wohlbefinden von Führungskräften und Mitarbeitenden in Organisationen zu fördern. Mentoring dient der Unterstützung des Wohlbefindens von Führungskräften in beruflichen Entwicklungsprozessen. Die Verbindung zwischen Mentoring und emotionaler Intelligenz bei Führungskräften wurde hingegen noch kaum untersucht. Traditionell kommt Mentoring eine psychosoziale und entwicklungsfördernde Aufgabe zu, welche es zu einem passgenauen Instrument zur Unterstützung von Personen in beruflichen Entwicklungsprozessen macht.

Diese Dissertation verfolgte einen kontextzentrierten Ansatz, der sich auf einen in der Forschung unterrepräsentierten Kontext, der beruflichen Bildung in Südafrika, konzentriert. Um die Verbindung zwischen Mentoring und Wohlbefinden zu untersuchen, wurde ein qualitativer Ansatz (Studie 1) unter Verwendung von Fokusgruppen (N = 24) und Interviews (N = 21) gewählt, um die Wahrnehmungen von Führungskräften in der mittleren Managementebene über ihre Teilnahme an einem beruflichen Entwicklungsprogramms zu erheben, in das ein Mentoringkonzept integriert ist. Die Ergebnisse zeigen auf, dass Führung als treibende Kraft und Wohlbefinden als Wirkmechanismus fungierten. Darüber hinaus wurde das Potenzial von *Peer Group Mentoring* zur Anwendung des Gelernten im beruflichen Kontext und der Entstehung einer *Community of Practice* hervorgehoben. Basierend auf diesen Ergebnissen untersuchte Studie 2 die Verbindung zwischen Mentoring und der Entwicklung emotionaler Intelligenz. Mit einem Gruppenvergleichs-Design (N = 139) wurde der Schutte Self-Report Emotional Intelligence Test durch explorative und konfirmatorische Faktorenanalysen validiert, und der Mann-Whitney U-Test untersuchte Unterschiede zwischen der Behandlungs- und der Kontrollgruppe in den

identifizierten Faktoren. Mediator- und Moderatoranalysen prüften den Effekt weiterer Variablen wie das Geschlecht der Teilnehmer, ihre berufliche Position, die Organisation und den beruflichen Sektor. Darüber hinaus wurden deskriptive Analyseverfahren verwendet, um zu ermitteln, welche Mentoring-Art am besten geeignet ist, die Entwicklung emotionaler Intelligenz zu unterstützen. Die Ergebnisse zeigen signifikante Unterschiede zwischen den Gruppen im Faktor *empathy difficulty*. *Peer Group Mentoring* wurde als die beste Mentoringart zur Entwicklung von emotionaler Intelligenz identifiziert. Organisationale Faktoren beeinflussten fünf der sechs identifizierten Faktoren. Das Geschlecht fungierte als Moderator in dieser Beziehung, wobei Männer höhere Werte in den Faktoren *trustworthy visionary* und *empathy* aufzeigten.

Die Dissertation beleuchtet den Zusammenhang zwischen Mentoring, Wohlbefinden und emotionaler Intelligenz. Die Ergebnisse unterstreichen, dass Mentoring ein wirksames Instrument zur Unterstützung des Wohlbefindens von Führungskräften in der mittleren Managementebene darstellt. Die aufgezeigte Verbindung zwischen Mentoring und der Entwicklung emotionaler Intelligenz eröffnet einen neuen Weg in der beruflichen Förderung von Führungskräften. Im südafrikanischen Kontext zeigen die Ergebnisse das Potenzial von Mentoring, Führungskräfte in der mittleren Managementebene zu unterstützen, um Bildungsungleichheiten zu überwinden, eine auf Wohlbefinden ausgerichtete Führung zu fördern und zur Entwicklung einer qualifizierten und resilienten Bevölkerung beizutragen. Insgesamt hebt die Dissertation die Bedeutung der Entwicklung emotionaler Kompetenzen hervor, um das individuelle und kollektive Wohlbefinden zu unterstützen. Mentoring hat sich dabei als ein entwicklungsförderndes Instrument bewiesen, um dies zu erreichen.

Table of Contents

1 Included Publications

The present dissertation is a publication-based dissertation and is based on two articles published in international peer-reviewed journals. The author of this dissertation is the first author of both articles and played the leading role in the development, conceptualization, data collection, analyses, writing the manuscripts, and revisions.

Prof. Dr. Salomé Human-Vogel was the second author in both studies who contributed to the conceptualization and review of the manuscripts. Prof. Dr. Marien Alet Graham was the third author in the second study who led the data analysis together with the first author. Prof. Dr. Daniel Pittich provided critical input to the conceptualization and review of the manuscripts. All authors provided critical reviews of the manuscripts and read and approved the submitted versions.

The first journal article was submitted to the journal of International Journal of Mentoring and Coaching in Education (ISSN: 2046-6854) in April 2023 and accepted in December 2023.

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Prummer, K., Human-Vogel, S., Graham, M. A., & Pittich, D. (2024b). The role of mentoring in developing leaders' emotional intelligence: exploring mentoring types, emotional intelligence, organizational factors, and gender [Original Research]. *Frontiers in Education*, *9*. https://doi.org/10.3389/feduc.2024.1393660

2 Introduction

Do you recall the last time you were led by emotions? Perhaps it was a moment of joy, frustration, or inspiration. Emotions drive us in decisions and interactions and emotions let us doubt. They are essentially always present; the question is what we make out of them. While emotions tend to be associated with our private lives, we spend most of our time in the workplace. From an early age throughout adulthood, we develop emotional competencies through the relationships we lead, in our private lives, and in our work lives. However, emotions, especially those considered negative, such as anger, frustration, and sadness, were deemed to be unwanted at the workplace not so long ago (Barley & Kunda, 1992). Soon after, emotional intelligence (EI) became 'a common phrase in the vocabularies of organizational leaders' (Fambrough & Kaye Hart, 2008, p. 740). This marked a cornerstone by bringing emotions as a resource into the work sphere. However, one still believed that emotions could simply be transferred from negative to positive to benefit the organization. While EI was deemed a trend, the discourse then did not address issues of application (Hess & Bacigalupo, 2011).

Recently, well-being has been suggested as a new criterion for organizational sciences (Tay et al., 2023). EI indicates that individuals who can recognize, understand, and manage their emotions and are empathic towards others in different settings reduce stress, typically enjoy better mental health, and lead more supportive relationships (Ciarrochi et al., 2002; Fteiha & Awwad, 2020; Parker et al., 2021). Thus, individuals who are more emotionally intelligent tend to experience higher subjective well-being (SWB) (Ciarrochi & Scott, 2006). Whereas EI forms a set of competencies individuals can develop, SWB is a perceptive and experiential state (Diener et al., 2018).

This raises the question of how emotions can be used in organizations, which tools are needed for it and for what reasons, making this question an educational one. The 21st century is the century of lifelong learning and there exists a plethora of learning scenarios affecting the way learners emotionally engage with them: formal, informal; online, on-site or hybrid; digitally and technologically enhanced (Fischer et al., 2020; Morgan-Klein & Osborne, 2007). New skills, one of these is said to be emotional intelligence, in today's world are necessary and professional development using the learning scenarios described above is one way to address this gap (Barry & Plessis, 2007; McGunagle & Zizka, 2020; Silber-Varod et al., 2019). To keep a work-life-study

balance, process-oriented methods answer the need for additional support in professional and psychosocial matters alongside professional development processes (Bahrami et al., 2023; Lowe & Gayle, 2007).

One such method is mentoring, which research highlights as valuable for developmental relationships that enhance personal learning throughout all stages of a career (Boeder et al., 2021; Castanheira, 2016). Mentoring allows for an individualized process between mentee(s) and mentor(s) and focuses on psychosocial well-being at the same time (Hobson = van Nieuwerburgh, 2022; Kutsyuruba & Godden, 2019). Since its implementation as a dyadic and hierarchical pedagogical tool, new forms of mentoring were developed, answering the need for more diversified and individualized processes (Irby et al., 2017). While research and practice have long been focusing their attention on mentoring teaching staff, recent studies consider the role of mentoring for the well-being of educational leaders as a basis for fostering the well-being of others (Kutsyuruba & Godden, 2019). Even though SWB and EI are conceptually related, there is scant evidence on if and how mentoring can support developing emotional competencies (Bar-On, 2005; Ciarrochi & Scott, 2006; Corrie, 2015; Tschannen-Moran & Carter, 2016). Despite the evidence linking good leadership to school improvement and the positive relationship between EI and leadership competencies, professional development programs for leaders are in the early stages of incorporating support structures such as mentoring to foster EI competencies (Núñez et al., 2023; Rhodes & Fletcher, 2013; Saha et al., 2023).

The dissertation is structured as follows: The first section (section 3) describes the research context including the vocational education and training (VET) sector in South Africa (3.1), the project and mentoring framework the dissertation is based on (3.2), and my positionality as a researcher (3.3). Based on the context, I will provide the aim of this dissertation (3.4) before introducing the main theoretical constructs in section 4: mentoring (4.1), well-being (4.2), mentoring and well-being (4.3), emotional intelligence/competence (4.4), and a synthesis (4.5), leading to section 5 in which the present research including the research questions are laid out. In section 6, the methodology is separated into study 1 (6.1) and study 2 (6.2). Following that, a summary of the results is presented in section 7. Finally, the main findings are discussed in section 8, highlighting limitations in section 9, and recommendations for

further research and practice are proposed in section 10. Section 11 concludes the dissertation.

3 Research Context

In this section, I will describe the research context, detailing the challenges and opportunities within the VET sector in South Africa. I will then give an insight into the leadership development program that comprises the mentoring framework central to this dissertation. Next, I will discuss my positionality as a researcher to reflect on the interconnectedness of the cross-national project, the ethical considerations of the research conducted, and the historical and cultural perspectives involved. Lastly, I will present the aim of the dissertation.

3.1 South Africa's VET System

South Africa continues to grapple with a persistently high unemployment rate of 64.4% among young people, a challenge exacerbated by a stagnant economy unable to generate sufficient jobs (Needham, 2019; Statistics South Africa, 2021). The VET sector is tasked with redefining post-school education and is pivotal in driving industrialization and expanding employment opportunities, especially for young people (Stumpf et al., 2012). The sector comprises 50 colleges, 710,000 enrolled students, and 3,500 senior and middle management personnel. In the White Paper for Post-School Education and Training published in 2013 the Department of Higher Education and Training (DHET), under whose authority the VET system falls, highlights the priority 'to strengthen and expand public TVET colleges and turn them into attractive institutions of choice for school leavers' (Department of Higher Education and Training (DHET), 2013, p. xii). The 2021 Innovation report highlights the current challenges VET faces in South Africa: governance issues such as top-down governance, lack of workplace-based training, and skills development (National Advisory Council Innovation (NACI), 2021). These barriers are further substantiated by research and are reported to hinder innovation, causing the VET system to lag behind the broader education system (Mestry, 2017; Papier et al., 2016). Badenhorst and Radile (2018) suggest that ineffective and fragmented leadership might be at the core of these challenges. Robertson and Frick (2018) note that there is a need for VET leaders with diverse skills, vocational expertise, and pedagogic knowledge, signaling a departure from traditional educational leadership models. Similarly, the Innovation report also calls for a 'renewal' of the leadership landscape (NACI, 2021, p. 7). Global studies underscore the link between effective leadership and educational institution improvement, spurring interest in leadership development within education (Mitchell,

2013). In the (South) African context, educational leadership development has been an important issue of debate for the last ten years, highlighting the need for building a knowledge base in this context (Bush, 2014; Kirori & Dickinson, 2020; Prummer et al., 2024a). In basic education in South Africa, there is a lack of formal preparation programs for aspiring or practicing principals (Mestry, 2017). However, the VET sector is underresearched and underrepresented in this debate (Papier & McGrath, 2020). Additionally, VET leaders' educational and occupational backgrounds are heterogeneous in terms of 'qualifications, experience and working conditions' (Robertson & Frick, 2018, p. 75). Leadership development programs have not sufficiently addressed the needs of the VET sector but rather provided a one-size-fits-all concept and thus have had limited impact (Van der Westhuizen & Van Vuuren, 2007).

3.2   The Project and Mentoring Framework

To address this gap, the DHET embarked on a joint project with the Education, and Development Practices Sector Education and Training Authority and the German Corporation for International Cooperation (GIZ) in 2018, to 'enhance […] the leadership and management capacities of VET college personnel' (Gesellschaft für internationale Zusammenarbeit (GIZ), 2019, p. 2). This resulted in a postgraduate diploma, a professional development program for middle-space leaders to acquire competencies related to the key performance areas of the South African VET system (Prummer et al., 2024a; Smit & Bester, 2022)

Middle-space leaders take over positions such as assistant principals, department heads, and deputy headships in educational settings. However, research, theory, and practice focus on the important role of principals as leaders, while those in the middle space are neglected (Armstrong, 2015; Searby & Armstrong, 2016). However, mentoring has been identified as a tool to support the development and professional growth of middle-space educational leaders (Searby & Armstrong, 2016). The program incorporates a three-pillar mentoring framework to support competence development on individual, social-communicative, and levels that focus on the key performance areas to foster professional growth.

The mentoring framework integrates three mentoring types, which address different areas of competence development (Table 1).

Table 1 Overview of the mentoring framework (published in Prummer et al., 2024a)

Mentoring type	Perspective	Aim	Organisation
Individual Professional Mentoring	Individual	Leadership competencies	One-on-one meetings
Key Performance Area Mentoring	Contextual	KPA-specific competencies	Expert-led meetings in small groups
Peer Group Mentoring	Cultural/Social	Social and communicative competencies	Peer group meetings with participants across different Key Performance Area groups

Individual Professional Mentoring focuses on establishing individual expertise and is delivered continually during contact periods, as well as via planned virtual consultations as needed. Personal approaches, such as traditional one-on-one mentoring, help individuals acquire relevant leadership competencies. The Individual Professional Mentoring enables individuals to engage in blended leadership (Collinson & Collinson, 2009) to address "strategic priorities and competing responsibilities" in VET in South Africa (Robertson & Frick, 2018, p. 73).

The Key Performance Area Mentoring uses participants' professional challenges in an application-oriented group setting to foster reflection and good practice approaches. Experts in the four key performance areas act as mentors for specialized consultation. This type of mentoring mainly takes place during contact sessions in groups. The emphasis on subject-area-related mentoring enables participants to select one topic that they have identified as relevant to their professional work context and require assistance with. This type of mentoring recognizes the context-specific challenges in the South African VET system. While Key Performance Area Mentoring stands for a novel type of mentoring, it can be connected to topical mentoring, which refers to offering individuals relevant information regarding their profession (Irby et al., 2017).

Peer Group Mentoring emphasizes cooperative, collaborative, and social learning (Carvalho & Santos, 2022). The peer groups are formed to include participants from various Key Performance Area groups. The aim is to provide opportunities for leaders to develop contextual intelligence by sharing their experiences. By doing so, they can improve social-communicative competencies. Being part of a community gives people a sense of belonging (Newman et al., 2007; Scheidlinger, 1964). This sense of belonging is a vital component of the cultural context in South Africa since it refers to

ubuntu – the interconnectedness we experience as part of a group (Murove, 2012). Thus, Peer Group Mentoring incorporates a culturally integrated mentoring approach that takes place online and during contact sessions (Geber & Keane, 2017).

3.3 Positionality as a Researcher

As a white female researcher from Germany with a background in educational and social sciences, my involvement in managing a VET project in South Africa required awareness of post-colonial sensitivities and the challenges identified by Eacott and Asuga (2014) and Terblanche and Passmore (2019). These scholars caution against the 'catch-up' logic (Eacott & Asuga, 2014, p. 920), recognizing that 'Africa has unique needs and challenges', which discloses a contextual approach rather than a one-size-fits-all strategy (Terblanche & Passmore, 2019, p. 4). With this understanding, my role in the cross-national team - comprised of two German and two South African researchers - emphasized the importance of avoiding any neocolonial biases in our research approach and methodology. It is my aim to prioritize local South African perspectives, ensuring that the provided theoretical background, the research methodology, including the data collection and analysis, and the discussion and recommendations drawn from this research do not inadvertently colonize the narratives I seek to understand. This understanding aligns with the perspective of Chilisa and Phatshwane (2022) avoiding analysis as a colonizing practice that could overshadow the authentic voices of the participants. By reflecting on my positionality and fostering an environment of collaborative equity, I want to support the development of educational strategies that are responsive to the local context and contribute to the broader educational discourse through rigorous and impactful research. This reflexive and respectful handling of cross-cultural dynamics not only adheres to ethical research standards but also enhances the validity and impact of my findings in a post-colonial setting.

3.4 Aim of the Dissertation

Based on the research context detailed above, the research sought to address the following two main objectives. The first objective was to understand how the mentoring framework integrated into the professional development program in VET in South Africa might function as a support structure for middle-space leaders. This objective extends prior research on mentoring in this area. While it is not possible to make mentoring a standardized process, it is necessary to investigate driving factors and

outcomes to provide a deeper understanding of mentoring processes, especially in this context. The mentoring framework provides a novel approach to combining different mentoring types to address individual, social-communicative, and key performance area-related levels. By using an emic perspective to elicit middle-space leaders' perceptions of their experience in the mentoring framework, I seek to establish a deeper understanding to provide groundwork for the development and improvement of mentoring, primarily regarding the potential of competence development.

The second aim of this dissertation, which builds chronologically on the first objective, was to empirically test whether mentoring developed middle-space leaders' EI in this context. Recognizing the limited research in this domain, the research focuses on several factors, such as different mentoring types, organizational factors, and gender, to deliver preliminary results that can inform further research. This involved the use of a control group and the validation of an instrument to test for EI.

Overall, the dissertation aims to contribute to providing insights into the use and effects of mentoring in supporting SWB and EI to further develop practice and research on mentoring and the use of emotions in the workplace.

4 Theoretical Background

This section delves into the multifaceted world of mentoring within the realm of professional development. It explores the conceptual basis of mentoring and its diverse forms and highlights the evidence base in the education sector, focusing on educational leadership. At the heart of this exploration lies the intersection of mentoring with SWB and EI.

4.1 Mentoring in Professional Development

The lifelong learning agenda of the 21st century impacts our professional and private spheres in a way that we need and want to stay dynamic (Gouthro, 2009; Neves & Henriques, 2020; Roche, 2015). Through this pace, professional development has become the basis of this agenda (Komives & Carpenter, 2016; van Weert, 2006). Continuous professional development is a self-directed and planned process to enhance and adjust professional competencies (Drude et al., 2019; Ryan, 2003). To navigate the challenges associated with it, individuals require support that is process oriented. Next to self-regulated learning environments, other student-centered teaching and learning methods, and competence orientation, additional methods that advance and support professional development, such as mentoring, have emerged along the way (Pittich et al., 2020; Schunk & Mullen, 2013; Tise et al., 2023).

Traditionally, mentoring involves an experienced senior acting as a mentor to help a protégée mentee navigate challenges and make informed decisions by acting as a role model and offering insights from their own experiences (Opengart & Bierema, 2015). Today, mentoring is understood as a multifaceted developmental and intentional process that is contextually driven (Irby et al., 2017). In the mentoring process, mentors take in a professional development and a psychosocial support role (Castanheira, 2016). Its dyadic form has diversified to peer group, virtual, topical, and cultural mentoring, highlighting a need for more directed forms of support (Irby et al., 2017). Also, informal relationships, in contrast to formal mentoring programs, underline a structural expansion (Baugh & Fagenson-Eland, 2007).

Research on mentoring in the past two decades has mainly focused on the following topics: mentoring in academia, mentoring educators and students in schools, peer mentoring, mentoring programs and practices, mentoring and diversity, and mentoring relationships (Irby et al., 2017). In educational contexts, mentoring plays a vital role at

various career stages, from preparation to early and later headship incumbency (Irby et al., 2022; Kutsyuruba et al., 2019; Searby & Armstrong, 2016). Purposes range from transitioning to new roles to fostering interactions and developing identity and technical skills (Cowin et al., 2016). However, principal mentoring and, even more so, mentoring aimed at middle-space educational leaders is often overlooked. At best, middle-space educational leaders receive informal mentoring within the organization from senior staff (Searby et al., 2017). The significance of mentoring in educational leadership development is underscored by its ability to support leaders' self-efficacy (Rhodes & Fletcher, 2013), influence leaders' identity through critical reflection (Muir, 2014), and contribute to decision-making on staff retention (Gimbel & Kefor, 2018). Additionally, mentoring can serve as a tool to address challenges in the era of lifelong learning, such as work-related stress, anxiety, burnout, and work-life imbalance (Kutsyuruba & Godden, 2019).

In educational research on mentoring, two streams have been identified that guide and extend current debate along the professional development and psychosocial support role mentoring inherits: (1) an emphasis on formalized approaches to gain a better understanding of how mentoring works (Renbarger & Davis, 2019) and (2) a focus on leaders' well-being (Hobson = van Nieuwerburgh, 2022) to create supportive learning environments (Kutsyuruba & Godden, 2019).

4.2   Well-Being

Well-being is considered a fundamental aspect of human life alongside basic needs. It has been a topic of philosophical and religious discourse throughout history, examining its nature and attainment (Diener & Ryan, 2009). Today, behavioral scientists delve into 'the factors that lead people to think and experience their lives in positive versus negative ways' (Diener et al., 2018, p. 253). SWB captures individuals' subjective evaluations of life, focusing on a hedonic perspective contrasted with an eudemonic view, which examines well-being from an external perspective (Diener & Ryan, 2009).

The concept of SWB, an umbrella term encompassing thoughts, judgments, and feelings, is linked by Das et al. (2020) to an emotional or affective dimension and an evaluative or cognitive dimension. Despite the diverse theoretical foundations of well-being, which span cognitive and affective models to theories of personal orientation and fulfillment, there is a lack of a unified framework (Das et al., 2020).

Research on SWB predominantly occurs within the realms of psychology and public health. Public health research focuses on the impact of health conditions on SWB, while psychology explores how personality traits affect SWB. Factors influencing SWB encompass sociodemographics, health, personality, social support, religion, culture, geography, and infrastructure (Das et al., 2020). Key findings indicate little gender-based difference in SWB, inconsistent direct effects of age on SWB, and a weak positive correlation between education level and well-being, influenced by income and socioeconomic variables (Diener & Ryan, 2009). Social support consistently emerges as a positive factor affecting SWB, where the size of social networks, quality of relationships, and interaction frequency play pivotal roles (Chou, 1999; Olsson et al., 2014; Sandstrom & Dunn, 2014). Furthermore, high SWB appears to benefit supportive relationships, work performance, and resilience (Helliwell et al., 2020).

In educational leadership, research zooms in on SWB during events such as the COVID-19 pandemic, exploring well-being among principals, staff, and students (Bester, 2023; Chen et al., 2023; Swapp, 2020). Factors like workplace bullying, organizational culture, and work motivation affect principals' SWB (Buonomo et al., 2020; Ekosusilo, 2020). Social capital predicts positive well-being among principals (Beausaert et al., 2021).

4.3   Mentoring and Well-Being

Educational leaders need to prioritize well-being, not only of their staff and students but also their own, as a foundation for creating conducive learning environments (Kutsyuruba & Godden, 2019). Traditionally, mentoring programs have prioritized elements like satisfaction (Diller et al., 2022), trust (D'Souza, 2014), and confidence (Whipp & Pengelley, 2017) rather than focusing on well-being (Hobson = van Nieuwerburgh, 2022). However, mentoring is increasingly recognized as a tool supporting well-being relating to its psychosocial support role (Hobson = van Nieuwerburgh, 2022). As such, an emerging area of focus in mentoring and leadership development is the promotion of well-being, recognizing its crucial role in sustaining effective educational leadership and fostering supportive educational environments.

Research has increasingly recognized the intersection between mentoring and well-being, highlighting their impact on personal and professional development. Boeder et al. (2021) found that career mentoring in emerging adulthood predicts later flourishing and SWB. Firzly et al. (2021) linked mentors' need-supportive behaviors to greater

autonomous motivation and well-being. Claro and Perelmiter (2022) indicated a moderate positive effect of mentoring on emotional well-being, especially among youth. However, Simões and Alarcão (2014) found no significant difference in well-being between mentored and non-mentored students.

In the realm of educational leadership, studies exploring the nexus of mentoring and well-being have gained attention. Educational leaders face diverse challenges in their roles. This has led researchers to delve into the efficacy of mentoring programs in enhancing both the well-being of leaders themselves and the overall educational climate. Grocutt et al. (2022) emphasize the positive impact of mentoring on leadership identity, transformational behavior, and emotional well-being. Formalized mentoring initiatives demonstrate the potential to enhance well-being and empowerment (Wilcoxen et al., 2020), notably when linked to leadership roles (Bell et al., 2021). Woloshyn et al. (2021) discovered that mentorship predicts professors' well-being but has little impact on students. Connery and Frick (2021) reported leaders' development in communication, time management, and leadership competencies through mentoring.

The evidence shows (1) the positive impact of mentoring on SWB and (2) the importance of developing leadership competencies. This dual approach recognizes that effective leadership requires not only a sound understanding of one's well-being but also the competencies to apply this knowledge situationally. SWB forms a perceptive and experiential state and thus relies on emotional intelligence or competence to manifest and regulate in real-life contexts.

4.4   Emotional Intelligence / Competence

The recent trend of focusing on emotions in the workplace and understanding their influence on engagement, decision-making, and communication is encapsulated by the concept of EI. E.L. Thorndike introduced this concept in the 1920s, and later, Salovey and Mayer provided a detailed description in a 1990 research article (Salovey & Mayer, 1990). Subsequently, Goleman further popularized and applied the concept, contributing significantly to its conceptualization, assessment, and practical understanding. However, as Roberts et al. (2008) noted, there are 'knowns and unknowns' in the realm of EI, with various epistemologies describing it as 'a competence, a skill, an adaptive outcome, a set of cultural beliefs, or some other construct' (Roberts et al., 2008, p. 419).

Common definitions of EI across different models typically refer to 'the abilities to accurately perceive emotions, to access and generate emotions to assist thoughts, to understand emotions and emotional knowledge, and to reflectively regulate emotions to promote emotional and intellectual growth' (Mayer et al., 2004, p. 197). Thus, EI can be understood as a 'co-operative combination of intelligence and emotion', where individuals can feel and express emotions because they are competent to do so and apply this competence across various contexts (Jonker & Vosloo, 2008, p. 21).

Research on EI is categorized into three streams, conceptualizing EI as either a trait, an ability, or a combination of the two (Pérez et al., 2005; Petrides & Furnham, 2000). Trait EI is typically measured using self-report questionnaires, while ability EI, also known as cognitive-emotional ability, is assessed through maximal performance tests. Due to the subjective nature of emotional experiences, they are not easily amenable to objective grading methods (Ashkanasy & Daus, 2005; Furnham & Petrides, 2003; Spain et al., 2000). However, being emotionally intelligent does not automatically translate to the ability to apply and regulate this knowledge effectively in real-life situations. This understanding has prompted some researchers and practitioners to shift focus from discussing and assessing EI to emphasizing (social) emotional competence. Most social-emotional competence frameworks entail emotional and behavioral regulation, emotional knowledge, and expression, which speaks to the interconnectedness of EI and social-emotional competencies (Berg et al., 2017). Despite the overlap of EI and social-emotional competencies, this dissertation only uses EI to focus the scope on one construct. According to my understanding of EI and its definition, as outlined above, it subsumes a set of competencies that is not related to a specific role, task, or context alone. EI is, in fact, an overarching 21st-century competence needed in all occupational roles, irrespective of their tasks and contexts (Barry & Plessis, 2007; Silber-Varod et al., 2019). Research by Grant (2007) and Tschannen-Moran and Carter (2016) suggests that training can enhance EI, which speaks to its competence-based nature. However, research remains silent about the nature of the training required. Programs focusing on or integrating EI competencies remain scarce. In educational leadership development, Núñez et al. (2023, p. 53) evaluated leaders' 'emotional intelligence competencies' and found significant positive differences in all variables except for self-awareness.

4.5 Synthesis

The aim of this chapter is to synthesize the conceptual and empirical basis between mentoring, well-being, and EI, exploring their implications for professional development.

Das et al. (2020) highlight that, in SWB research, education only plays a socioeconomic status variable, indicating a weak positive relation to the evaluative dimension of SWB. However, in times of lifelong learning and work-study-life balance, it has become necessary to investigate SWB in educational settings and understand how programs need to be designed to foster it. In a study with school leaders Doyle Fosco et al. (2023) report that role-related stress extended to all three areas of work-study- and private life and different types of self-care mitigated the effects of stress. A tool to look at determinants of stress and emphasize self-care is mentoring since it employs a developmental and psychosocial role. The psychosocial dimension integrates SWB as an affective/emotional component. In one of the view studies in education, Lucas-Mangas et al. (2022) demonstrate that regulating SWB predicts teachers' job engagement by managing relationships, the school environment, and finding purpose in their work. SWB entails an evaluative dimension, which includes the ability to perceive and regulate sources of stress. Therefore, acting emotionally intelligent could be a competence necessary in this setting. Previous research links high well-being with EI (Diener & Ryan, 2009; Schutte et al., 2002). EI, beyond its association with SWB, correlates with various psychological and social constructs like empathy, physical health, social interaction, and performance in educational and workplace settings (Bar-On et al., 2007). Trait EI, in particular, is linked to happiness and well-being (Palmer et al., 2002) and predicts positive outcomes indicating social-emotional well-being (Zeidner et al., 2012), including improved well-being and social relationships (Nelis et al., 2009). It is suggested that EI aids in managing emotionally challenging situations (Lenaghan et al., 2007) and navigating positive and negative emotions to impact job satisfaction (Kafetsios & Zampetakis, 2008). However, not all studies consistently correlate EI and SWB (Zeidner & Olnick-Shemesh, 2010).

Unlike research on SWB in education, research on EI and educational leadership has grown in recent years. A systematic review by Gómez-Leal et al. (2021) identifies key EI competencies crucial for school leadership, including self-awareness, self-management, empathy, communication, and conflict management skills. This

underlines the connection between EI and SWB for effective educational leadership, influencing school climate, teacher commitment, family and community partnerships, and student outcomes (Mahfouz et al., 2019).

The school environment is evolving rapidly and is characterized by change, ambiguity, and a need for a work-life-study balance. Staying emotionally balanced by integrating emotional skills next to cognitive ones should be one of the major tasks for school leadership also in their development (Schmidt, 2010). In professional leadership development there exists a demand for catering to leaders in various career stages and management levels. Yet, many leadership programs have a generalized approach, prompting the need for context-specific initiatives (Núñez et al., 2023; Prummer et al., 2024a). Recognizing that mentoring offers guidance and personalized support in terms of psychosocial and developmental factors, professional development programs should integrate such additional structures alongside (Faizuddin et al., 2022).

The call for mentoring to support and develop leaders' EI is evident, building on existing research on mentees' SWB and the known association between EI and SWB (Middlewood & Bush, 2013). Research suggests that coaching and mentoring can develop EI traits (Boyatzis, 2007; Corrie, 2015), with studies highlighting the perceived influence of mentors on mentees' EI (Shapira-Lishchinsky & Levy-Gazenfrantz, 2016) and the indirect link between mentees' EI and trust in mentors (Chun et al., 2010). However, further research is needed to explore the connection between mentoring and EI in depth, especially with regard to its developmental nature. Previous research considers factors such as intimacy, salary, and leadership styles (Bennetts, 2002; Rode et al., 2017; Yong, 2013).

The potential of EI and mentoring for the individual and collective warrants a closer look at the relationship to address the existing research gaps. To advance this field, future research should explore if mentoring can prove to be a factor in development programs by simultaneously promoting well-being and developing the leadership skills necessary for today's educational environments.

5 The Present Research

This chapter highlights the focus of the dissertation emanating from the previously discussed theoretical basis and the context of VET in South Africa. I will explain the research goal and the research questions, providing the basis for the subsequent analyses and findings of this dissertation.

The overarching aim of this dissertation is to investigate and enhance the role of mentoring for middle-space leaders in professional development. It also seeks to shed light on the question of whether mentoring can function as a tool to develop specific competencies. Using the VET sector in South Africa as a context, the dissertation focuses on an underrepresented sector (VET) and geographic location (the Global South), adding to the neglected target group of middle-space leaders. As a result, I address Henrich et al.'s (2010) recommendation to allow for a greater representation of samples outside the WEIRD (Western, Educated, Industrialized, Rich, and Democratic) context. Research and practice-based activities are necessary for the VET system to become more responsive. Compared with higher education and general education, VET is still under-researched despite growing output from 2008 onwards (Papier, 2018).

By addressing these aims, this research contributes evidence-based solutions and implications for integrating mentoring in professional development programs. Additionally, it can inform the curriculum development of professional programs and policy initiatives based on the importance of well-being and EI for individuals, organizations, and the community.

In the initial stage of the dissertation, the focus lay on exploring the middle-space leaders' perceptions of the mentoring framework. Using an emic approach to eliciting leaders' experiences, the following research question was formulated:

RQ 1: Which factors contribute to leaders' perceptions of and reactions to the mentoring framework?

Understanding which factors leaders voice and how they perceive them when they think of their mentoring experiences in the program can help to understand which roles mentoring exhibits. Do they focus on developmental aspects that were set as the aim of the mentoring framework? Are there other important factors that were neglected in

the development of the framework that nevertheless play a vital factor in practice? Hence, it's necessary to further investigate the factors mentioned and if they were perceived as outcomes or drivers of the framework. Outcomes could hint towards competence development if they were applied in the work context. That is why the next research question was formulated:

RQ 2: How do these factors relate to one another in a perceived system of influence or cause and effect?

The capability of humans to make causal judgments is fundamental to decision-making processes. Existing research underscores that humans are adept at formulating causal explanations directly from perceptual data (Human-Vogel & Mahlangu, 2009; Körding et al., 2007). However, the mechanisms through which individuals make complex generalizations from limited data are not completely understood (Tenenbaum et al., 2011). Zheng et al. (2020) have observed that an increase in information does not invariably enhance predictive accuracy, particularly in scenarios characterized by uncertainty or when decisions are influenced by pre-existing knowledge and beliefs (Rottman & Hastie, 2014). The methodology used builds on the premise that humans are able to derive causal judgments from sparse data. Yet, it also acknowledges recent evidence suggesting that such judgments are subject to variation when they intersect with individuals' perceptions and lived experiences.

Based on the results of this first research stage, I wanted to further investigate the nature of mentoring as a psychosocial development tool. This led to the question of whether the experience of mentoring can enhance EI competencies. To further investigate this question, using a quantitative research design, the following five research questions were formulated:

RQ3: Which of the three mentoring types of the mentoring framework do leaders perceive to best support them in developing emotional intelligence?

Using the Schutte Emotional Intelligence Test (SREIT), I asked three cohorts of the program to self-report their EI. Using a between-groups research design, I further identified leaders and lecturers who didn't participate in the program to act as a control group.

RQ 4: What is the underlying factor structure of the SREIT in the South African VET context?

To assess the applicability of the SREIT for evaluating EI within the South African VET context, I conducted exploratory and confirmatory factor analyses. These analyses allow validation of the underlying factor structure of the instrument, especially considering prior research has indicated variations in factor structures of the SREIT across diverse cultural settings (Davies et al., 2010; Pisnar et al., 2022).

RQ 5: Are there any significant differences in the identified emotional intelligence factors between leaders who participated in the mentoring framework and leaders and lecturers who did not?

> H1: Leaders who participated in the mentoring framework have significantly higher levels in the identified factors compared to those leaders and lecturers who did not participate in the mentoring framework.

As a rule for testing this research hypothesis, I adhere to the following principles. For direct effects, *t*-test statistics and *p*-values are produced; if the *p*-value is less than .05, the difference is statistically significant. A bootstrapped 95% confidence interval (CI) is provided for indirect effects.

RQ6: Does leaders' and lecturers' perceived importance of EI (regarding job position, VET school, and VET sector in South Africa) mediate the score of the identified factors?

Within the broader context of the VET system in South Africa, my research aimed to explore whether the perceived importance of EI varies according to job position, VET institutions, and the overall VET sector. It is essential to consider the influence of an individual's occupational role, the organization they belong to, and the sector they operate in.

> H1: Leaders' and lecturers' perceived importance of EI (regarding job position, VET school, and VET sector in South Africa) significantly mediates the scores of the identified factors.

RQ 7: Does gender moderate leaders' and lecturers' perceived importance of EI (regarding job position, VET school, and VET in South Africa) in the identified factors?

Building on prior studies that examined gender differences in EI among students, my study aims to further investigate the impact of a leader's gender on EI within the South African VET system. Previous research in the South African context found that teachers perceived female school leaders as having significantly greater interpersonal and intrapersonal emotional competencies compared to their male counterparts (Grobler, 2014). Therefore, I want to further investigate the interplay of gender and the importance of EI in this educational context.

> H1: Gender significantly moderates the perceived importance of EI in the identified factors.

6   Methodology

Based on the set of research questions explained above and my positionality as a researcher, the methodology of this dissertation provides a triangulated exploratory sequential research design using a mixed methods approach to elicit the role mentoring plays in professional development (Edmonds & Kennedy, 2016). The following sections provide an overview of the methodological considerations in the context of this dissertation.

I will discuss the methodological basis for the research designs, including the data collection and analysis process. The dissertation consists of two studies that build upon each other. In study 1, I used an explorative qualitative research design to answer research questions 1 & 2, whereas in study 2, I wanted to further investigate the qualitative findings using a quantitative research design to answer research questions 3 – 7. Since qualitative and quantitative research follow different research paradigms, I will explain the approach I used in each of the two studies separately from each other. This line of action also follows the chronological process of my dissertation.

6.1   Study 1 - Methodology

In study 1, I employed Interactive Qualitative Analysis (IQA) as a methodology for data collection and analysis (Northcutt & McCoy, 2004). IQA is grounded in the social-constructivist paradigm that incorporates elements from phenomenology, systems theory, and grounded theory. IQA produces a System Influence Diagram, which visually represents participants' insights into the phenomenon under study, differentiating between drivers, pivots, and outcomes. IQA relies on group processes to create and analyse data, which in a subsequent phase are employed to investigate the individual's perspective of the researched phenomenon. This process minimizes researchers' bias and mitigates power dynamics between researchers and participants by involving participants actively as both data providers and analysts (Northcutt & McCoy, 2004). Furthermore, IQA supports the establishment of a verifiable audit trail, detailing each step of the analysis and interpretation process using protocols. This enhances the trustworthiness and replicability of the research findings. McCoy (2013, p. 7) also highlights its benefit to 'manage the influence of organizational politics and protect minority voices and perspectives'.

6.1.1 Sample and Data Collection

The sample consists of VET leaders from two cohorts of the professional development program who possess active roles in middle to senior management at VET schools in South Africa. My analysis primarily focused on the collective beliefs of the groups about the phenomenon. Thus, I did not collect any individual characteristics. Table 2 gives an overview of the methods used for the data collection and the sample of cohorts 1 and 2.

Table 2 Overview of sample and data collection in November 2020 and November 2021 (published in Prummer et al., 2024a)

Method	Cohort 1 (2020) N =	Cohort 2 (2021) N =
Focus group (Developing themes)	24	0
Interview (Describing themes)	21	0
Relationship table (Relating themes)	21	8

Ethical approval for this study was secured from both participating universities. I thoroughly informed participants about the study's purpose, the structure of the data collection sessions, and the potential benefits and risks of participation. I also outlined their rights and responsibilities, ensuring all participants provided written informed consent.

The initial session in November 2020 involved the first cohort of VET managers from the 2020 program, implementing a full IQA process. The complete IQA process with the first cohort involved focus groups (N = 24) to develop themes, which were followed by interviews (N = 21) to describe and relate themes to one another. In the subsequent session in November 2021, I engaged the second cohort (N = 8) of the program to refine and validate the relationships among categories initially developed by the first cohort.

6.1.2 IQA Research Flow Phase 1

In phase 1, I conducted two focus group sessions with 24 leaders (first n = 13, duration 180 minutes; second n = 11, duration 153 minutes) to investigate their perceptions of the mentoring framework in the study program. Participants first reflected on their

experiences with the implemented framework through a silent brainstorming activity on Mentimeter Pro, which generated a total of 175 individual responses (n1 = 110; n2 = 65). Following this, they organized these responses into thematic groups and subgroups and named them using an inductive coding approach on CryptPad. Each group categorized the responses into distinct thematic clusters, referred to as affinities. The first focus group identified nine affinities, while the second group clustered five. The terms developed by both groups to describe these affinities were carefully reviewed and compiled in alphabetical order into the final Affinity Relationship Table (ART; Table 3).

Table 3 Identified affinities in alphabetical order (published in Prummer et al., 2024a)

Number	Name
1	Actions
2	Benefits
3	Challenges
4	Development
5	Emotions
6	Individual Professional Mentoring
7	Key Performance Area Mentoring
8	Leadership
9	Peer Group Mentoring
10	Support

6.1.3 Interviews and Group's Affinity Relationship Table

The affinities the participants identified, grouped, and named in the focus group sessions, which were compiled in the ART, provided the basis for the individual interviews. In the first part of the interview, participants were asked to share their experiences of each identified affinity. Based on the ART, participants were then asked to conduct a theoretical coding exercise exploring their perspectives of the relationships among the affinities, allowing for three options. For instance, when analyzing the relationship between two specific affinities labeled A and B, three options can be identified: A influences B (A→B), B influences A (A←B), or there is no relationship between them (A<>B). This exercise can be facilitated and analyzed at group and individual level. In line with my research questions, I analyzed the group level by aggregating all individual responses into one group ART (Table 4).

Table 4 Affinity pair relationship table at the group level with arrows indicating the direction of influence (published in Prummer et al., 2024a)

Affinity Pair Relationship	Affinity Pair Relationship	Affinity Pair Relationship
1→2	3→4	5←10
1←3	3→5	6→7
1→4	3←6	6→8
1←5	3←→7	6→9
1←6	3←8	6→10
1←7	3←9	7→8
1→8	3←10	7→9
1→9	4→5	7→10
1→10	4←6	8←9
2←3	4←7	8→10
2←4	4←8	9→10
2→5	4←9	
2←6	4←10	
2←7	5←6	
2←8	5←7	
2←9	5←8	
2←10	5←9	

IQA uses the Pareto principle or 80/20 rule to identify the critical minimum number of relationships necessary to explain the maximum variation within the system. This principle allows for efficacy in maximizing explanatory power in qualitative research (Human-Vogel & Van Petegem, 2008).

The interviews conducted as part of this study were transcribed verbatim using the software MAXQDA. To preserve the authenticity of the participants' expressions, no grammatical corrections were made to the transcripts. The transcriptions were then coded according to the affinities identified during the focus group sessions. To ensure the anonymity of the participants, pseudonyms in the form of codes (ranging from A1 - A4, B1 - B3 and B6, C1, C2, C4, C5, D1 - D5, E1, E2, and E4 - E6) were assigned to each participant during the interview process.

6.1.4 IQA Research Flow Phase 2

Phase 2 involves subsequent procedures using protocols to result in the visual representation, the System Influence Diagram. To 'rationalize the system' a composite inter-relationship diagram was created (Table 5), representing an aggregation of all responses for each relationship pair in the ARTs (Northcutt & McCoy, 2004, p. 170).

Table 5 Inter-relationship diagram in numerical order (published in Prummer et al., 2024a)

	1	2	3	4	5	6	7	8	9	10	OUT	IN	Δ
1		↑	←	↑	←	←	←	↑	↑	↑	5	4	1
2	←		←	←	↑	←	←	←	←	←	1	8	-7
3	↑	↑		↑	↑	←		←	←	←	4	4	0
4	←	↑	←		↑	←	←	←	←	←	2	7	-5
5	↑	←	←	←		←	←	←	←	←	1	8	-7
6	↑	↑	↑	↑	↑		↑	↑	↑	↑	9	0	9
7	↑	↑		↑	↑	←		↑	↑	↑	7	1	6
8	←	↑	↑	↑	↑	←	←		←	↑	5	4	1
9	←	↑	↑	↑	↑	←	←	↑		↑	6	3	3
10	←	↑	↑	↑	↑	←	←	←	←		4	5	-1

For each pair of affinities, the relationship was documented bidirectionally, with arrows signifying the direction of influence (either leftward or upward). The delta values were computed by subtracting the number of arrows directed inward from those directed outward for each affinity. These delta values were then organized in descending order, as presented in Table 6. Affinities exhibiting positive delta values are categorized either as primary drivers, characterized by the absence of inward arrows or as secondary drivers within the system. Conversely, affinities with negative delta values are identified as primary outcomes, indicated by the absence of outward arrows, or as secondary outcomes. Affinities that display an equal tally of inward and outward arrows are designated as circular or pivot affinities, signifying their central role in mediating the dynamics within the system.

Table 6 Inter-relationship diagram sorted in descending order of delta (published in Prummer et al., 2024a)

	1	2	3	4	5	6	7	8	9	10	OUT	IN	Δ
1		↑	↑	↑	↑	↑	↑	↑	↑	↑	9	0	9
2	↑		↑	↑	↑	←	↑	↑	↑	↑	7	1	6
3	←	↑		↑	↑	←	←	↑	↑	↑	6	3	3
4	↑	↑	←		←	←	←	↑	↑	↑	5	4	1
5	←	↑	↑	↑		←	←	↑	←	↑	5	4	1
6	↑	↑	←	↑	↑			←	←	←	4	4	0
7	←	↑	↑	↑	↑	←		←	←	←	4	5	-1
8	←	↑	←	←	↑	←	←		←	←	2	7	-5
9	←	←	←	←	↑	←	←	←		←	1	8	-7
10	↑	←	←	←	←	←	←	←	←		1	8	-7

The visual representation of the inter-relationships among identified affinities is captured in the System Influence Diagram, akin to a path diagram. Following this representation, affinities are ordered within topological zones based on their delta values, decreasingly, with directional arrows indicating the relationships as outlined in the inter-relationship diagram (Ananth & Maistry, 2020). To ensure clarity and coherence within the System Influence Diagram, the IQA process includes a step where extraneous links are systematically removed. This occurs when links are

mediated through other relationships; for instance, if A is linked to B and C, and B is also linked to C, then the direct link from A to C can be omitted as it is sufficiently explained by the indirect paths from A to B and B to C.

As part of the results section, I will explain the composite System Influence Diagram, highlighting the structural aspects of the system and provide a summary of the affinities.

6.2 Study 2 – Methodology

In study 2, I employed a quantitative research design using a between-group approach to answer research questions 3 - 7. A quantitative between-group research design involves comparing two or more distinct groups on specific variables to statistically assess differences and ascertain the effects of interventions on measured outcomes (Edmonds & Kennedy, 2016). I used sociodemographic data, the SREIT, a validated EI questionnaire, and additional questions on the perception of EI in terms of occupation, VET school, and VET sector.

My primary aim in this study is to understand the role mentoring plays in developing emotional intelligence while taking into account different moderating and mediating variables. In the subsequent chapters I will further describe the sample and data collection, the instrument used, and the steps undertaken in the data analysis.

6.2.1 Sample and Data Collection

Since its launch, three cohorts have completed the professional development program, enriching the available data set. The first two cohorts were contacted via email for participation in a new study, while leaders of the third cohort were approached during an online session of the program, where data collection also occurred. A control group was established with assistance from the DHET involving VET leaders unaffiliated with the mentoring program. Both groups represented a cross-section of the national VET sector. Participation was voluntary, with full disclosure of data handling and participant rights. Data collection was conducted from October to November 2022 for the mentored participants (N = 48) and from April to May 2023 for the control group (N = 95), using the Unipark survey tool to ensure anonymity and meet ethical standards. Four participants were excluded for not meeting inclusion criteria, with the remaining

completing the survey. Table 7 summarizes the socio-demographic characteristics of participants.

Table 7 Participants' socio-demographic characteristics (published in Prummer et al., 2024b)

	N	Gender (n)	Age		Position
			M (SD)	Mdn (IQR)	
Mentored leaders	48	M = 27 F = 21 NB = 0 TR = 0	50.81 (6.78)	51.00 (10.00)	(Vice) Principal = 8 Department Head = 10 Manager = 30
Non-mentored leaders	47	M = 55 F = 36 NB = 0	47.99 (9.63)	48.00 (15.00)	(Vice) Principal = 5 Department Head = 15 Manager = 27
Lecturers	44	TR = 0			Lecturer = 44

M = male, F = female, NB = non-binary, TR = trans

6.2.2 Instrument

I utilized the SREIT, developed and validated by Schutte et al. (1998) based on the trait EI model by Salovey and Mayer (1990), which Schutte et al. (1998) describe as a trait-like characteristic suggesting that those with low EI could benefit from targeted guidance or support. This perspective underscores the developmental aspect of EI and highlights the necessity of exploring educational tools designed for this purpose. The SREIT is known for its good internal consistency, test-retest reliability, and construct validity (Pisnar et al., 2022). Furthermore, it is widely used due to its brevity and accessibility (O'Connor et al., 2019). It comprises 33 statements, employs a 5-point Likert scale, and measures four dimensions of self-reported trait EI: optimism/mood regulation, appraisal of emotions, social skills, and utilization of emotions. Jonker and Vosloo (2008) culturally validated it within the South African higher education context, identifying six distinct factors, although subsequent research has noted inconsistencies in its factor structure (Davies et al., 2010; Pisnar et al., 2022).

6.2.3 Data Analysis

For statistical analysis, SPSS version 29 was employed. Exploratory factor analysis (EFA) was utilized to explore the factor structure using Promax rotation, retaining factors with eigenvalues over one. Items with commonalities below 0.3 and factor

loadings under 0.6 were removed through iterative EFAs until the final structure was established.

Confirmatory factor analysis (CFA) followed to validate the structure, and the reliability and validity of the instrument were assessed. Composite reliability (CR) values, indicative of internal consistency, were calculated for each factor, with a CR of 0.6 considered adequate for exploratory studies and 0.7 generally (Hair et al., 2022). Construct validity, comprising convergent and discriminant validity, was also established. Convergent validity was confirmed when the average variance extracted (AVE) exceeded 0.5, and discriminant validity was established when correlations between constructs were less than the square root of their respective AVEs (Hair et al., 2022).

For subsequent research questions, factors were averaged from their items, forming continuous variables. Non-normality determined by the Shapiro-Wilk test necessitated non-parametric tests. Descriptive analysis was used for RQ3, the Mann-Whitney U (Z_U) test was used for RQ5 to assess differences between groups, and PROCESS Models 4 and 59 (Hayes, 2022) for testing mediation and moderated mediation effects in RQs 6 and 7. T-tests and bootstrap samples with 95% confidence intervals were used for analyzing direct and indirect effects, respectively. In analyses, coding for gender and professional roles was specified as male (1), female (0), lecturer (1), and manager (0).

7 Results

In this section I will summarize the results[1] of the above-described studies. To answer research questions 1 and 2, which I explored in study 1, I will first present the System Influence Diagram, followed by a summary of each affinity as described during the interviews. Based on the results of study 1, I will explain the rationale for the second study and, finally, answer research questions 3 – 7, respectively.

7.1 Perceptions of Mentoring

The *Individual Professional Mentoring* served as the primary driver of the mentoring framework. *Key Performance Area Mentoring* and *Peer Group Mentoring* were secondary drivers (Figure 1). Additionally, *leadership*, *support*, and *actions* also functioned as secondary drivers in the participants' mentoring experience. These five affinities presented the drivers of the mentoring framework.

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[1] Affinities and factors that present the results of this dissertation are italicized. This also accounts for the mentoring types when mentioned as affinities.

Figure 1 System Influence Diagram
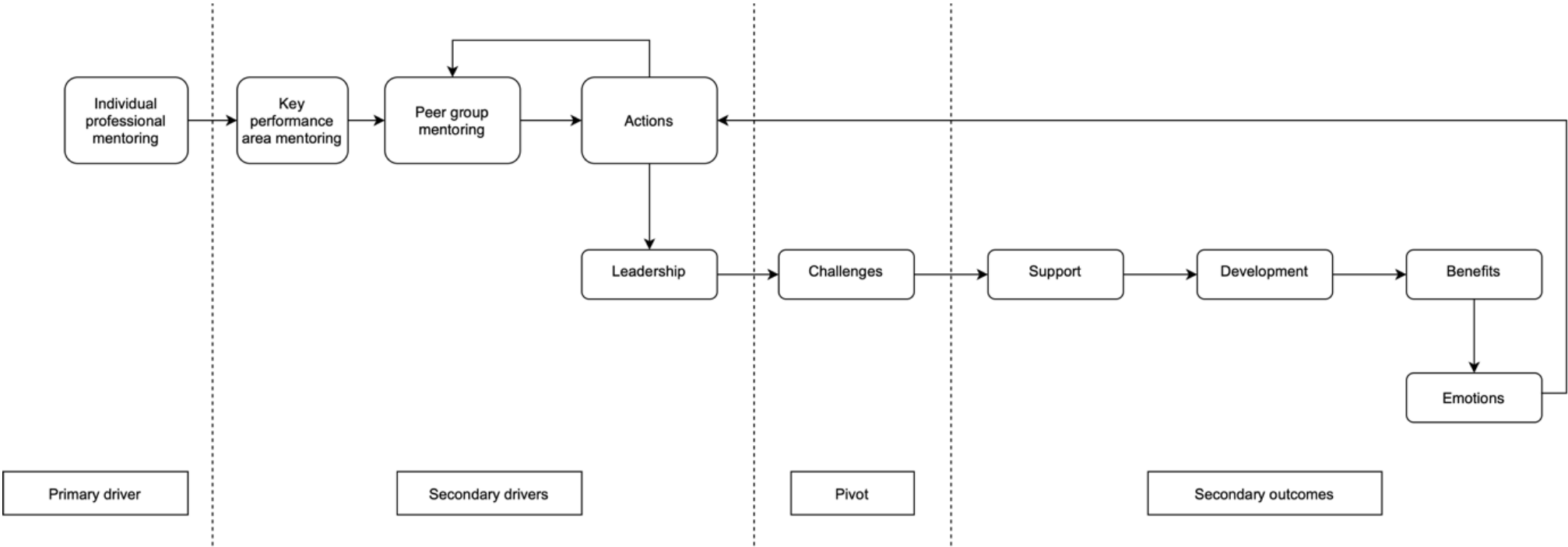
Challenges related to the mentoring process acted as a neutral pivot. The affinities *support*, *development*, *benefits*, and *emotions* constituted the outcomes or results of the cause-effect relationships. Two feedback loops were identified. In the first feedback loop, a reciprocal relationship was observed where the *Peer Group Mentoring* influenced *actions*, and *actions*, in turn, fed back into the Peer Group system, forming a *community of practice* (Figure 2). The second feedback loop showed that *actions* directly influenced *leadership* and was simultaneously affected by *emotions*.

Figure 2 System influence diagram summarised
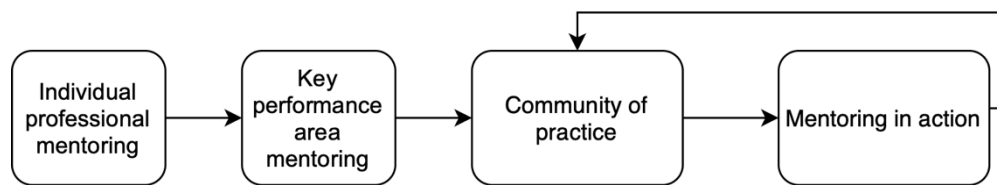
Individual Professional Mentoring – Primary Driver

At the onset of the training, participants were sceptical and unsure about the concept of the *Individual Professional Mentoring*, with some finding it difficult to grasp. Over time, it created a safe environment where participants could openly share their experiences, fears, and *emotions*, leading to a sense of relief and continuity in their training. The *Individual Professional Mentoring* facilitated self-evaluation and professional *development*, extending beyond the program's duration. Participants found this type of mentoring emotionally rewarding and supportive, preventing feelings of isolation and potential dropout.

Key Performance Area Mentoring – Driver

The *Key Performance Area Mentoring* was perceived as a collaborative learning space where peers shared best practices and addressed common *challenges* such as connectivity and management issues. The application-oriented approach was highly valued, enabling participants to implement changes in their institutions. Activities included listening, questioning, working on case studies, and sharing information. Peer learning fostered growth in specific key performance areas and personal *development*, creating a relaxed and encouraging environment.

Peer Group Mentoring – Driver

The *Peer Group Mentoring* emphasized building a sense of community and teamwork among participants. It served as a conscience, safety net, and the highlight of the program. Initially, participants felt hesitant and competitive but later valued the mutual *support* and information sharing. The *Peer Group Mentoring* facilitated benchmarking of VET organizations and leadership competency evaluation. Despite initial *challenges* with dominant individuals and peer pressure, the program's motivational aspects and networking opportunities were crucial in maintaining participant engagement and creating a feeling of well-being.

Actions- Driver

Actions were categorized into physical and cognitive subgroups. Cognitive *actions* involved learning, reflection, and emotional engagement, while physical *actions* included communication and engagement with others. Participants found the *challenges* stimulating yet demanding. The interplay between cognitive and physical *actions* was essential, as understanding cognitive benefits motivated physical efforts. *Actions* within the mentoring framework emphasized peer *support* and *development*.

Leadership - Driver

Leadership opportunities allowed participants to lead, solve problems, and reflect on their leadership styles. This reflection extended to fostering growth in their teams at the VET schools. Participants re-evaluated their working processes and *leadership* approaches, striving to become strategic leaders and thinkers. The program encouraged continuous improvement and adaptation of leadership styles to suit various situations.

Challenges - Pivot

Participants faced significant *challenges* with internet connectivity, technology, and maintaining a work-life-study balance, exacerbated by COVID-19. Group work difficulties arose from the notion that leaders work individually. The cognitive load of leadership thinking and the gap since their last professional development program were also challenging. Despite these issues, the mentoring framework provided tools to manage these *challenges*.

Support – Outcome

Participants felt supported by mentors, lecturers, tutors, peers, and workplace supervisors. Online resources like concepts, videos, podcasts, and readings, along with forums and WhatsApp groups, enhanced this support. Emotionally, the *support* facilitated personal and professional growth, offering guidance and motivation. Participants acknowledged the necessity of *support* for success and recognized that they couldn't master everything alone.

Development – Outcome

The mentoring framework promoted reflection on professional *development*, highlighting areas for improvement. Participants linked their *development* to how they supported their staff's growth. The program fostered *leadership* growth, improved time management, technology use, communication, action research, and teamwork. Participants recognized that *development* is an ongoing process with continuous opportunities for growth.

Benefits – Outcome

Participants identified several *benefits* from the mentoring, including strategic thinking, self-discovery, teamwork, communication, task implementation, self-confidence, and technological skills. The *Peer Group Mentoring* facilitated mutual learning and resulted in making an impact together, while the one-on-one sessions and networking opportunities provided further *support*. The *benefits* extended to the workplace, offering advice and assistance when needed.

Emotions – Outcome

Participants experienced a range of *emotions*, including well-being and resentment. Positive *emotions* included happiness and comfort, while negative *emotions* stemmed from initial anxiety and pressure. Over time, the program helped participants understand their own well-being needs and those of their staff. The *Peer Group Mentoring*, in particular, provided emotional *support*, safety, and social inspiration, alleviating feelings of confusion and being overwhelmed.

7.2   From Perceptions to Competence Development

Emotions emerged as a key outcome in the mentoring framework, evolving from initial nervousness to satisfaction and relaxation. Through the emic perspective of evaluating their mentoring experience in positive and negative ways, the leaders ascribed it to their SWB. The dynamics within the mentoring framework, as displayed in the System Influence Diagram, highlighted *emotions* as a critical component of the *mentoring in action* feedback loop, affecting and being affected by *actions* within the *community of practice* feedback loop. This highlights the dual role of *emotions* as an implicit driver of *actions* but also an explicit outcome of the mentoring process. The interaction between *emotions* and *actions* underscores the importance of developing emotional competencies, raising questions about whether competencies such as emotional regulation, empathy, and resilience were, in fact, developed through the mentoring framework. Based on the results of study 1 and the described connections between mentoring, SWB and EI focusing on mentoring as a psychosocial development tool, the results of the second study focused on the question of whether mentoring can enhance emotional intelligence competencies.

7.3   Competence Development through Mentoring

To answer research question 3, descriptive statistics were used to show the differences (*M*, Mdn) between the responses of the managers, department heads, and principals using a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*extremely*). Table 8 indicates that leaders in all collected roles, including managers, department heads, and principals, found Peer Group Mentoring most effective in enhancing their EI, with an average score of 4.17 (SD = 0.75; range of M = 4.00 – 4.23). In contrast, Key Performance Area Mentoring was seen as the least supportive for EI development, scoring an average of 3.63, while Individual Professional Mentoring ranked slightly higher at 3.71.

Table 8 Descriptive statistics of perceived support of mentoring type in developing EI across job positions (published in Prummer et al., 2024b)

	N	How much would you say the Individual Professional Mentoring has supported you in developing EI?		How much would you say the Peer Group Mentoring has supported you in developing EI?		How much would you say the Key Performance Area Mentoring has supported you in developing EI?	
		M (SD)	Mdn (IQR)	M (SD)	Mdn (IQR)	M (SD)	Mdn (IQR)
All	48	3.71 (0.90)	4.00 (1.00)	4.17 (0.75)	4.00 (1.00)	3.63 (1.06)	4.00 (1.00)
Managers	30	3.80 (0.81)	4.00 (0.00)	4.23 (0.73)	4.00 (1.00)	3.73 (0.98)	4.00 (1.00)
Department heads	10	3.40 (1.08)	3.50 (1.00)	4.10 (0.74)	4.00 (1.00)	3.30 (1.42)	3.50 (2.00)
Principals	8	3.75 (1.04)	4.00 (2.00)	4.00 (0.93)	4.00 (2.00)	3.63 (0.92)	4.00 (1.00)

To answer research question 4, EFA and CFA were conducted. EFA yielded a satisfactory Kaiser-Meyer-Olkin value (0.549), with Bartlett's test of sphericity indicating a significant result ($p < .001$). Six factors explained 73.0% of the total variance. The factors are *social engagement* (Q 13, 14), *empathy difficulty* (Q 33, 5; reverse-scored), *resilience* (Q 1, 2), *emotional perceptiveness* (Q 29, 32), *emotional regulation* (Q 21, 9), and *trustworthy visionary* (Q 4, 7) (Table 9).

Table 9 Factor structure of the SREIT in the present study (published in Prummer et al., 2024b)

Question number	Component					
	1	2	3	4	5	6
Q13: I arrange events others enjoy	**.888**	.053	-.074	.032	-.081	.076
Q14: I seek activities that make me happy	**.880**	-.028	.120	-.043	.055	-.080
Q33_RS: It is difficult for me to understand why people feel the way they do	-.060	**.837**	.115	-.121	-.105	.219
Q5_RS: I find it hard to understand the non-verbal messages of other people	.083	**.812**	-.113	.128	.017	-.155
Q1: I know when to speak about my personal problem to others	-.014	.048	**.849**	.073	-.071	-.151
Q2: When I am faced with obstacles, I remember times I faced similar obstacles and overcame them	.062	-.056	**.805**	-.008	.116	.089
Q29: I know what other people are feeling just by looking at them	-.041	-.191	.143	**.875**	-.137	.135
Q32: I can tell how people are feeling by listening to the tone of their voice	.037	.254	-.093	**.774**	.154	-.054
Q21: I have control over my emotions	-.108	-.105	.003	.045	**.903**	-.065
Q9: I am aware of my emotions as I experience them	.104	.027	.036	-.073	**.723**	.156
Q4: Other people find it easy to confide in me.	-.067	.250	.048	.034	.067	**.790**
Q7: When my mood changes, I see new possibilities	.088	-.292	-.155	.070	-.014	**.662**

A subsequent CFA verified this factor structure with a root mean square error of approximation (RMSEA) of 0.059 and a comparative fit index (CFI) and goodness-of-fit index (GFI), both above 0.9, indicating a good model fit. Configural invariance was confirmed across groups of non-mentored leaders, lecturers, and mentored leaders, maintaining the 6-factor structure.

Challenges were noted in achieving metric, scalar, and strict invariance, suggesting that applying the highest levels of invariance may be overly stringent, as noted in prior research (Flake et al., 2022). The instrument's reliability was confirmed with composite reliability (CR) values for each factor exceeding 0.6, as shown in Table 10, and all average variance extracted (AVE) values surpassed 0.5, affirming both convergent and discriminant validity.

Table 10 Reliability and convergent validity measures (published in Prummer et al., 2024b)

Factor/Construct	Number of items	CR	AVE
Factor 1: Social Engagement	2	.877	.781
Factor 2: Empathy Difficulty	2	.809	.680
Factor 3: Resilience	2	.813	.684
Factor 4: Emotional Perceptiveness	2	.811	.682
Factor 5: Emotional Regulation	2	.800	.669
Factor 6: Trustworthy Visionary	2	.692	.531

To answer research question 5, the Mann-Whitney U test (Z_U) was utilized to assess significant differences across the six factors between occupational groups. Analysis of the factor scores between non-mentored leaders and lecturers (N = 91) compared to mentored leaders (N = 48) revealed a notable difference in factor 2, *empathy difficulty* (Z_U = -2.146, *p* = .032). Scores for non-mentored individuals were significantly higher (*Mdn* = 4.00, *IQR* = 1.00) compared to the mentored group (*Mdn* = 3.50, *IQR* = 1.00). However, when comparing scores between leaders (N = 47) and lecturers (N = 44) within the non-mentored group, no significant differences emerged, with Z_U values ranging from 0.061 to 1.152 and corresponding *p*-values from .249 to .951.

To answer research question 6, mediation analyses were conducted using the different occupations (manager or lecturer) as the independent variable (IV), one of the six factors as the dependent variable (DV), and items assessing perceptions of the importance of emotional intelligence (EI) as the mediator (MED). The data set encompasses the entire VET sector in South Africa, offering insights both at the individual school level and across the broader sector. Given the multitude of potential

IV, DV, and MED combinations, only those models that yielded significant results are reported. Significant findings from the mediation analyses are detailed in Table 11.

Table 11 Mediation analysis with non-mentored manager/lecturer group as independent variable (N = 91) (published in Prummer et al., 2024b)

Mediation analysis	Dependent Variable				
	EI factors	Effect	SE	CI [95%]	
				Upper	Lower
Importance of EI for job position	Empathy difficulty	-.105	.067	-.264	-.006
	Resilience	-.171	.092	-.383	-.028
	Emotional regulation	-.061	.038	-.152	-.005
Importance of EI for VET school	Emotional perceptiveness	-.034	.029	-.099	-.015
	Trustworthy visionary	-.119	.092	-.349	-.001
Importance of EI for VET sector	Resilience	-.073	.053	-.204	-.002
	Trustworthy visionary	-.103	.068	-.262	-.005

The mediator 'view of the importance of EI for one's current job position' had a significant indirect effect between the occupational role and the factors *empathy difficulty, resilience*, and *emotional regulation*. The negative effects indicate that, on average, the role of a lecturer is associated with lower scores on each of the three factors when compared to the role of a manager.

The mediator 'view of the importance of EI for the VET school' had a significant indirect effect between the occupational role and the factors *emotional perceptiveness* and *trustworthy visionary*. The negative effects indicate that, on average, the role of lecturer is associated with lower scores on each of the two factors when compared to the role of a manager.

The mediator 'view of the importance of EI for the VET sector' had a significant indirect effect between the occupation role and the factors *resilience* and *trustworthy visionary*. The negative effects indicate that, on average, the role of a lecturer is associated with lower scores each of the two factors when compared to the role of a manager.

To answer research question 7, gender was incorporated as a moderating variable (MOD) in the analysis to explore if it influenced the perceived importance of EI on the identified factors using moderated mediation analysis. Only those findings that showed significant moderation effects are reported.

In Figure 3, only path *b* demonstrated significant moderation (t = 2.11, p = .038), indicating that the impact of perceptions about the importance of EI for one's VET school on the factor *trustworthy visionary* differs by gender. The positive coefficient of 0.362 (SE = 0.172) suggests that males are associated with higher levels of *trustworthy visionary* compared to females.

Figure 3 Significant moderation of path *b*
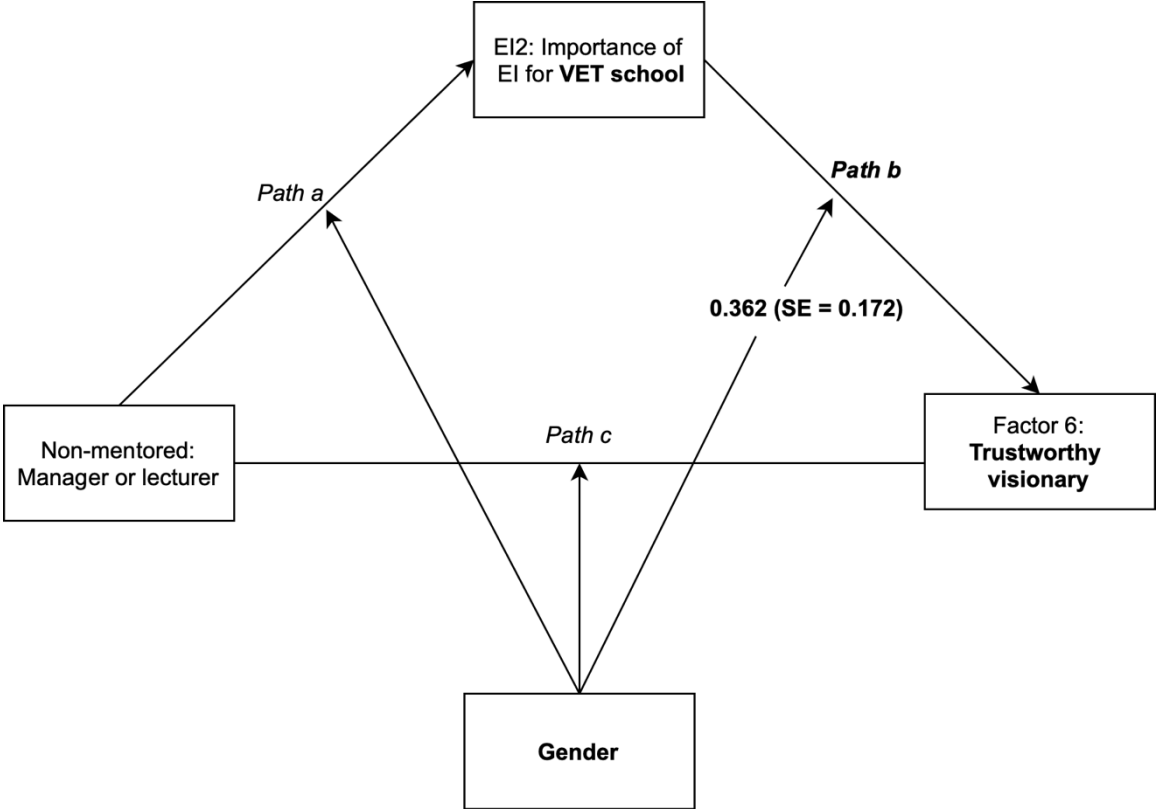
In **Figure 4**, both paths *b* and *c* showed significant gender moderation. The significant moderation of path b (t = -2.33, p = .022) reveals that gender affects how the importance of EI for the VET sector influences *empathy difficulty*. The negative coefficient of -0.449 (SE = 0.193) indicates that males exhibit lower *empathy difficulty* compared to females in this context. Similarly, the significant moderation in path c (t = -2.19, p = .032) shows that the relationship between occupation and *empathy difficulty* is also influenced by gender, with the negative effect of -0.783 (SE = 0.358) suggesting that being male is associated with lower *empathy difficulty* than being female.

Figure 4 Significant moderated mediation of path *b* and path *c*
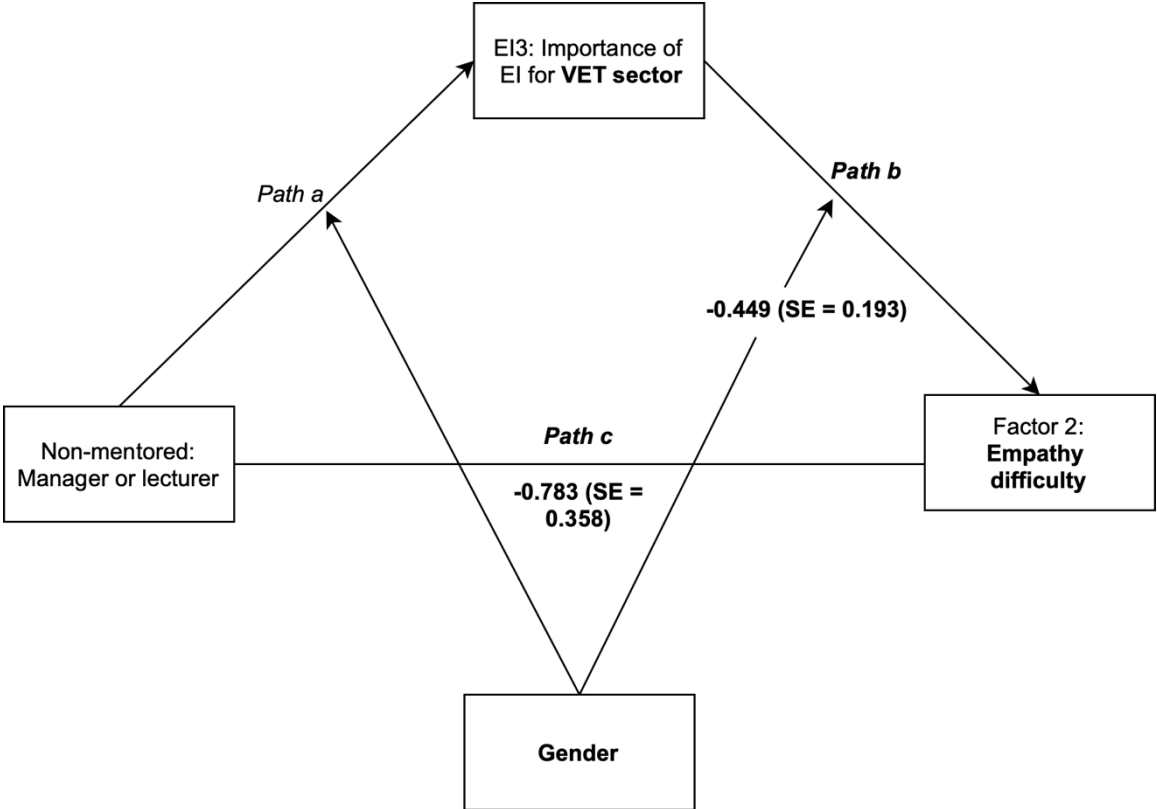
8 Discussion

The aim of this dissertation was to bring about a greater understanding of the potential of mentoring in the professional development of middle-space leaders for SWB and EI. The empirical studies in this research addressed relevant aspects at individual, group, and organizational levels, which highlights the significance of this dissertation collectively. While all these levels depend on, interact with, and influence each other, I will structure the discussion of the main findings according to these three levels.

8.1 Individual Level

The first study contributes to the research on developing context-specific mentoring programs and on well-being in the field of mentoring. Based on the IQA procedure, results showed that individualization functions as a prerequisite in this professional development setting since the Individual Professional Mentoring was associated as the primary driver in the framework (Prummer et al., 2024a). This highlights the need for individualization in leadership development despite the dyadic and group focus of mentoring. Previous research has indicated that mentoring can enhance the personal development of leaders through structured programs, leading to improved leadership performance and increased competencies (Bryant & Aytes, 2021; Grocutt et al., 2022).

The first study also revealed that emotions were the final outcome of the mentoring experience (Prummer et al., 2024a). This highlights the critical role of emotions in mentoring, while the results support the interconnection with actions. Emotions not only drove actions but also resulted from them, reinforcing the importance of EI in professional development (Prummer et al., 2024 a). Research suggests that emotions and actions are strongly linked to thriving in the workplace (Bieńkiewicz et al., 2021). However, brain-based neuroscience models often overlook the social context in which individuals learn and work in organizational settings (Schilbach et al., 2013).

The results of study 2, which utilized a between-groups design, are consistent with those of Bryant and Aytes (2021) using a pre-post design, who found that EI mentoring increased gratitude. In this study, mentoring significantly enhanced empathy, which is conceptually related to gratitude (Prummer et al., 2024b). These findings are further supported by Young et al. (2018) who demonstrated that diverse mentoring relationships can boost cultural intelligence and empathy as mentors encounter mentees' challenging situations. This exposure fosters perspective-taking and

adaptability, as confirmed by Spencer et al. (2020) in their exploration of empathy and mentoring.

8.2 Group Level

The individual level forms the basis for group and organizational dynamics. One key finding from study 2 illustrates how these levels interplay. As leaders advance to higher roles, their perceived need for Peer Group Mentoring for emotional intelligence development decreases (Prummer et al., 2024b). Although Peer Group Mentoring was ranked as the most valuable mentoring type across all occupations, its importance diminished as leaders' roles ascended. Despite this trend, the emphasis on middle-space leaders underscores the critical need for communities of practice to support their development (Campbell et al., 2022). Participatory practices such as communities of practice are closely connected to mentoring among peers in previous research, which confirms this link (Nicholson et al., 2018; Pashmforoosh et al., 2023).

The 'community of practice' feedback loop is central to the mentoring framework, linking key drivers like Individual Professional Mentoring and Key Performance Area Mentoring with leadership development (Prummer et al., 2024a). This loop underscores the importance of social learning, where members build and share knowledge through practice (Campbell et al., 2022). The dissertation highlights that social and communicative aspects of learning, emphasized in Peer Group Mentoring, are crucial for mentoring effectiveness. In the South African context, this reinforces the significance of community-building and shared knowledge for professional development (Geber & Keane, 2017). Additionally, it aligns with Western research showing that virtual communities of practice can effectively support and transform school leadership (Irby et al., 2022).

Moreover, this dissertation emphasizes the significance of peer practices in enhancing emotional competencies within organizational settings, highlighting their effectiveness over traditional one-on-one mentoring and coaching (Prummer et al., 2024b). Within a community, individuals can demonstrate and develop EI by observing, expressing, and managing emotions, both their own and others' EI. This empathic behavior, a key aspect of EI, fosters social and emotional competencies in group settings. Emotionally intelligent individuals often seek greater social involvement, which positively impacts organizational environments (Kaur & Hirudayaraj, 2021).

8.3 Organizational Level

The findings indicate that leaders' perception of the importance of EI for their organization mediated the relationship between occupational roles and EI factors such as *emotional perceptiveness* and *trustworthy visionary* (Prummer et al., 2024b). This suggests that the organizational context significantly influences how leaders develop and apply their emotional competencies. Leaders who perceive EI as crucial for their organization are more likely to exhibit higher levels of *emotional perceptiveness* and be seen as *trustworthy visionaries*. Sturm et al. (2022) found that organizational virtuousness affects employee behavior. The reciprocal relationship between organization and individual is an important factor to consider since individuals evaluate organizations in terms of what they do and who they are, but also based on the norms and values of the society in which they live and work (Salancik & Pfeffer, 1978; Sturm et al., 2022). The mediating effect on two EI factors suggests that an individualistic approach to development alone is inadequate for comprehensive EI development (Prummer et al., 2024b). In 21st-century organizations where organizational well-being is a priority, it is essential for all members to be competent in EI to support and achieve this goal (Tay et al., 2023).

Examining the organizational perspective on EI within the VET sector revealed a mediating effect of gender (Prummer et al., 2024b). Contrary to common beliefs about gender-based roles, the data showed that male participants reported higher levels of *empathy* and *trustworthy visionary* than female participants when occupational roles were considered. This finding challenges the prevalent notion that women are generally more emotionally intelligent, especially in interpersonal dimensions of EI. Research from Ethiopia supports the view that female leaders tend to score higher in overall EI (Asmamaw & Semela, 2023), yet other studies indicate that men may score higher in intrapersonal dimensions of EI (Fischer et al., 2018; Tommasi et al., 2023).

The data suggests that socially established norms regarding gender and EI are not stable within this sample (Prummer et al., 2024b). This insight is significant as it highlights the dynamics between gender roles and EI in leadership. While previous research often finds women to be more emotionally intelligent, particularly in empathy, the results show a different pattern (Prummer et al., 2024b; Tommasi et al., 2023). The variability in findings underscores the importance of contextual factors and systemic

bias in self-reported data, as noted by Herbst (2020) and Löffler and Greitemeyer (2023).

9 Limitations

The mixed-methods research of this dissertation encompasses some limitations that should be addressed. These limitations offer valuable insights into areas that could benefit from improvement and suggest potential directions for future research.

The first limitation concerns the type of data used. I used qualitative data in the first study, which provides a diversity and richness of viewpoints on the mentoring framework. By using IQA, I tried to limit my bias and influence as a researcher, especially regarding the different cultural context in which my research was carried out. However, I cannot assume that the analysis is free from bias. The quantitative data collected as part of study 2 focused on an underrepresented sample at the leadership level. This implies that I had to accept a small sample size, resulting in non-parametric statistical analysis. The issues raised on both data types impact the transferability of the results and call for a need for further research and interventions in leadership development in VET.

Furthermore, the questionnaire used in study 2 was self-reported, which raises issues of different types of cognitive biases such as social desirability, overconfidence effect, and self-perception accuracy (Herbst, 2020). Additionally, the investigation of gendered differences in EI increases the potential of systemic bias, such as stereotyping of gender roles. While self-reported data are common in investigating trait EI it is challenging to measure emotions since they are subjective (Furnham & Petrides, 2003).

Examining competence development, particularly in the realm of emotional intelligence, requires careful consideration of context, as demonstrated in this dissertation. While the use of a between-group research design in study 2 expanded the dataset across three cohorts of the program, employing a pre-post research design with the same target group could provide deeper insights into the progression of emotional competencies. Additionally, it is advisable to study competence development using qualitative methods such as interviews and participatory observation while taking into account the diversity of learning in the 21st century.

One reason for the findings in study 2 could be the socio-demographic characteristics of the sample, which included age, gender, and occupational roles. While my primary

focus lies on occupational roles and the differences between the treatment and control groups, it is important to consider the impact of these socio-demographic variables. For instance, professional experience often correlates with age. In this sample, the median age difference between the treatment and control groups was only three years despite including various occupational roles, leading me to omit age from the analysis. Most existing studies focus on higher education students, making direct comparisons challenging. However, examining EI across the lifespan is crucial since leadership roles in organizations require different competencies than those needed by students. Previous studies show that EI can mediate the relationship between age and well-being (Chen et al., 2016) and age can mediate gender differences in EI (Fernández-Berrocal et al., 2012).

Conducting research in real-life settings, rather than controlled laboratory environments, necessitates acknowledging and communicating the influence and interaction of various external factors. One such factor is the integration of the mentoring framework within a professional development program. This integration makes it challenging to isolate the effects of mentoring from those of other elements, such as the role of lecturers, module content, and the support received both at the workplace and at home. Participants often referred to the modules and mentoring experiences interchangeably, reflecting the strong integration and interaction between the program and its support structures essential for professional development.

It is also important to note that the development program and mentoring framework did not explicitly aim to enhance EI. Nonetheless, the subconstructs of EI, such as emotional regulation, empathy, and emotional perception, are inherently part of mentoring practices due to their psychosocial nature. Furthermore, the focus of this dissertation emerged from the participants' reflections, highlighting the unbiased incorporation of these EI elements within the mentoring context.

10 Recommendations for Further Research & Practice

The dissertation and its discussed limitations have implications on methodological, theoretical, and practical levels.

From a methodological perspective, it is advisable to extend the research agenda in other underrepresented settings (WEIRD) as suggested by Henrich et al. (2010). There exists ample research in the higher education sector, allowing for large samples due to the accessibility of students in research. However, other, not as easily accessible target groups, such as leaders, can enrich the database and discussion on the topic of EI and professional development. Similarly, other cultural contexts outside the Western countries need to be focused on. More specifically, researchers should further explore the question of how EI competencies, especially focusing on its subconstructs such as empathy and emotional regulation, are developed through qualitative research designs based on the findings of study 2. Further quantitative studies in other underrepresented settings, with the identified factor structure and a pre-post design, could provide further evidence to this question.

New mentoring concepts, such as Key Performance Area Mentoring, require further independent research, especially considering issues of power, control, and dependence in mentoring relationships (Colley, 2002; Sundli, 2007). Cross-cultural studies investigating status and power perspectives will enhance our understanding of mentoring processes.

While the primary focus of this dissertation was on understanding the perspectives of leader mentees, it is essential to consider the influence of mentors in these reciprocal relationships. The approach mentors take can significantly affect mentees, who may respond differently based on their beliefs about their personality and capacity for change. This concept aligns with Dweck's (2006) growth mindset theory, which posits that individuals either see their intelligence, personality, and emotional attributes as fixed or as capable of development (Bartz et al., 2018). Recent research by Cleven et al. (2023) underscores the importance of EI and a growth mindset in forming a professional identity. Additionally, the proficiency of mentors to act emotionally intelligent in mentoring settings may shape the development of EI in their mentees. Therefore, further studies using observational methods in real-life settings and

interviews should explore the connection between EI, growth mindset, and competencies from the perspective of mentors.

From a theoretical perspective, it is necessary to sharpen the conceptual and theoretical basis of EI which challenges research in this area. So does the overlap between EI and well-being, with well-being functioning as a salient component of trait EI (Furnham & Petrides, 2003). EI research mainly focuses on psychology, whereas well-being research predominantly occurs in the areas of psychology and public health. Mentoring poses an important concept of research in educational sciences. To provide a more clear-cut basis of EI it might also be necessary to break new ground on how emotions can be investigated through neuroscience (Adolphs, 2016). Only recently, well-being has been considered an important criterion in organizational sciences and is prioritized in mentoring research for educational leaders (Hobson = van Nieuwerburgh, 2022; Tay et al., 2023). Thus, transdisciplinary research in the three areas is necessary to integrate the disciplines' knowledge and establish common frameworks to provide a basis for further research and practice.

From a practical perspective and showing the implications mentoring provides, it is advisable to integrate support structures such as mentoring in lifelong learning programs. Considering that organizations, programs, cultures, and educational workers are different, it is necessary to consider the context in which the program takes place. The current findings from study 1 indicate that well-being, reflection, and application to the workplace are three essential components for lifelong learning programs to create a safer space for professional and personal development. EI, next to other factors, can be an important determinant for that.

From an organizational perspective, organizations must consider the value of emotionally intelligent individuals, irrespective of their occupational role, starting with the recruitment process and continuing with using mentoring as an intraorganizational practice. The focus on middle-space leaders in (educational) organizations and the importance that those leaders ascribe to peer-mentoring practices suggests that EI is a topic for leadership development and practice. That is why it is crucial to integrate mentoring structures at the leadership level to address emotional and well-being components and establish a community of practice. Emotionally authentic individuals are essential for personal and organizational development to thrive in the 21st century.

The findings from this dissertation carry implications for policy development in South Africa. The South African government is currently emphasizing public-private collaborations, employment initiatives, and skill development programs to combat youth unemployment. Given the crucial role of well-being for thriving individuals, the following recommendations are proposed: EI should be integrated into sector-specific training programs, particularly at leadership and management levels within the VET sector. This integration should be extended to the general education sector to foster a comprehensive approach to leadership development. Promoting individual well-being is essential for empowering educators and leaders to address educational disparities and focus on the well-being of others. Policies should prioritize well-being as a fundamental aspect of educational and professional environments and identify concrete measures, such as mentoring, that need to be implemented. Additionally, the DHET and the Department of Basic Education should focus on promoting well-being-focused leadership. Middle-space leaders should be empowered to act as change agents who collaborate in peer groups to drive improvements both at the school level and influence policies at the governmental level. This approach will create a bottom-up and top-down synergy in educational reform. While the immediate focus on well-being and EI might not appear urgent, it is crucial for building a skilled workforce that is resilient to the evolving challenges in South Africa. Integrating these elements into national educational policy will contribute to long-term stability and growth in the workforce.

The recent trend to include AI as single support or in combination with a human-based approach in mentoring students and employees brings up ethical questions as well as practical considerations to its purpose (Köbis & Mehner, 2021). Based on the findings of this dissertation that highlight the need for psychosocial support through mentoring, especially with regard to peer group mentoring and the need for a contextual basis, it is questionable whether AI can assist leaders in this way. It may provide an economic and trendy solution to the issue of attracting mentors. Research in this area should clarify if human-machine communication can comparably enhance well-being and the development of EI.

11 Conclusion

In summary, the dissertation investigated the role of mentoring on middle-space leaders' emotions, framed through the concepts of well-being and EI development in the VET sector in South Africa. The findings from study 1, which utilized a three-pillar mentoring framework, confirmed previous research highlighting mentoring as a psychosocial tool that supports SWB. Additionally, novel findings emphasized leadership as a driver and the developmental nature of the mentoring framework as an important outcome. The results of studies 1 and 2 underscore that Peer Group Mentoring and the building of a community of practice as a safer space play vital factors in fostering SWB and developing EI competencies. In this context, the mentoring framework appeared to contribute to developing middle-space leaders' empathy, a factor of EI. By considering contextual factors such as organizational variables and gender as mediating and moderating variables in study 2, the perspective on mentoring and EI development was enhanced. These results shed light on the significance of EI for occupational status, leaders' VET schools, and the VET sector, demonstrating that each of the three variables significantly mediated EI factors. Furthermore, investigations on gender provided insights that challenge traditional gender-based roles, suggesting avenues for further research.

In conclusion, the dissertation contributes to the growing understanding of mentoring in professional development processes for middle-space leaders in 21st century organizations. It serves as a stepping stone to better understand the use and effects of mentoring in supporting SWB and developing EI. This dissertation further advances practice and research on mentoring and underscores the importance of leveraging emotions as a powerful resource in the workplace.

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13 Appendix

13.1 Appendix A

Journal Article I:

Prummer, K., Human-Vogel, S., & Pittich, D. (2024a). Vocational education and training in South Africa: leaders' perceptions of a mentoring framework in a professional development programme. *International Journal of Mentoring and Coaching in Education*, *13*(2), 195-213. https://doi.org/10.1108/IJMCE-03-2023-0032

13.2 Appendix B

Journal Article II:

Prummer, K., Human-Vogel, S., Graham, M. A., & Pittich, D. (2024b). The role of mentoring in developing leaders' emotional intelligence: exploring mentoring types, emotional intelligence, organizational factors, and gender [Original Research]. *Frontiers in Education*, *9*. https://doi.org/10.3389/feduc.2024.1393660