frontiers | Frontiers in Education

TYPE Original Research
PUBLISHED 05 June 2024
DOI 10.3389/feduc.2024.1393660

OPEN ACCESS

EDITED BY
Luisa Maria Diele Viegas,
Federal University of Bahia (UFBA), Brazil

REVIEWED BY
Helena Araujo,
Universidade Estadual do Sudoeste da Bahia, Brazil
Lada Kaliska,
Matej Bel University, Slovakia

*CORRESPONDENCE
Katharina Prummer
✉ Katharina.prummer@tum.de

RECEIVED 29 February 2024
ACCEPTED 15 May 2024
PUBLISHED 05 June 2024

CITATION
Prummer K, Human-Vogel S, Graham MA and Pittich D (2024) The role of mentoring in developing leaders' emotional intelligence: exploring mentoring types, emotional intelligence, organizational factors, and gender.
Front. Educ. 9:1393660.
doi: 10.3389/feduc.2024.1393660

The role of mentoring in developing leaders' emotional intelligence: exploring mentoring types, emotional intelligence, organizational factors, and gender

Katharina Prummer[1]*, Salomé Human-Vogel[2], Marien Alet Graham[3] and Daniel Pittich[1]

[1]Professorship of Technical Education, TUM School of Social Sciences and Technology, Technical University of Munich, Munich, Germany, [2]Department of Educational Psychology, Faculty of Education, University of Pretoria, Pretoria, South Africa, [3]Department of Science, Mathematics and Technology Education, Faculty of Education, University of Pretoria, Pretoria, South Africa

Emotional awareness, emotional regulation, empathy, and resilience are key components of emotional intelligence. Twenty-first-century leaders require such competencies, and prior research establishes a positive impact of emotional intelligence on leadership and well-being. The mechanisms through which leaders develop these competencies remain unclear. Mentoring, a developmental tool linked with well-being, has not been extensively studied for its role in emotional intelligence development. The current study investigates this relationship within the context of vocational education and training in South Africa. The mentoring framework includes individual, peer group, and key performance area mentoring. In previous research on this mentoring framework, leaders perceived emotional well-being as the most important outcome of mentoring and development, constituting another vital factor. Data were collected from a treatment group of leaders who have participated in the mentoring framework and a control group of leaders and lecturers ($N = 139$). The present study used exploratory and confirmatory factor analysis to validate the Schutte Self-Report Emotional Intelligence Test within this context. In the next step, we employed descriptive analysis to answer which mentoring type was best perceived to support emotional intelligence. Using the Mann–Whitney U test, we tested for significant differences in the identified factors between treatment and control group. Mediated and moderated mediation analyses explored variables such as gender, occupational role, organization, and work sector. Results indicate a six-factor structure of emotional intelligence, with significant differences observed between groups in the factor *empathy difficulty*. Peer group mentoring emerged as an effective method for emotional intelligence development among leaders. The perceived importance of emotional intelligence for one's job position, the organization, and the work sector mediated five of the six factors. The moderated mediation analyses showed an indirect effect of gender, where being male was associated with more *trustworthy visionary* and *empathy*. The findings underscore the significance of peer mentoring practices and organizational factors in nurturing emotional intelligence, highlighting its value for personal and organizational well-being. Overall, the study sheds light on developing emotional intelligence at all organizational levels to support individual and collective well-being.

KEYWORDS

emotional intelligence, mentoring, well-being, leaders, organization, gender

Introduction

In a complex and uncertain world, organizations require resilient and agile leaders who must demonstrate a range of competencies to balance the organization's goals with the need to support its staff to function optimally while maintaining a personal sense of well-being. Accomplished 21st-century leaders should possess inter-and intrapersonal competencies related to social and emotional competencies such as communication and collaboration. To lead change processes, leaders should also be equipped with emotional competencies such as emotional awareness, emotional regulation, empathy, and resilience (Wang et al., 2016). Consequently, well-being and emotional intelligence (EI), which are conceptually related, are "relevant for employees, policymakers, and the broader community" (Sánchez-Álvarez et al., 2016; Tay et al., 2023, p. 1152). Current evidence suggests that EI positively impacts leadership competence (Saha et al., 2023), but research is generally silent on how leaders can develop EI and which educational tools might be used for this purpose. This leads to the question of how leaders can develop EI competencies while managing and supporting the well-being of themselves and others (Higgs and Rowland, 2010; Wang et al., 2016).

The private sector has used coaches or mentors in leadership development for a long time now. In schools, however, the mentorship of principals has received comparatively little attention (Bertrand et al., 2018) despite the demonstrated effect of good leadership on school improvement (Rhodes and Fletcher, 2013). Leaders at middle-management levels have rarely been considered (Rhodes, 2012; Searby and Armstrong, 2016).

Mentoring has diversified over the years to include peer group and topical mentoring as well as traditional one-on-one mentoring. Recently, a focus on well-being in mentoring was emphasized (Hobson and van Nieuwerburgh, 2022). Stemming from the connection between well-being and EI, research exploring interactions between mentoring and EI is limited across disciplines (Opengart and Bierema, 2015). However, it is important since leaders must apply their competencies to support well-being; in other words, they need to act with EI to lead organizations holistically.

The current research followed a context-centric approach, including underrepresented minorities to avoid focusing exclusively on WEIRD (Western, Educated, Industrialized, Rich, Democratic) samples (Henrich et al., 2010). To explore the connection between mentoring and developing EI in educational organizations, we examined the vocational education and training (VET) sector in South Africa and investigated whether leaders' EI was developed through participation in a mentoring framework as part of a professional development program. Previous research in this context highlights the connection between mentoring and subjective well-being (SWB) (Bester, 2023; Prummer et al., 2024). However, SWB forms a subjective evaluation of one's life and does not automatically translate to competencies for leaders to apply to the organizational setting.

Our first objective was to validate the Self-report Emotional Intelligence Test (SREIT) developed by Schutte et al. (1998) for use in our research context. We did this because previous use of the SREIT in India, the US, and Brazil produced culture-specific results (Pisnar et al., 2022). The instrument is based on a trait model of EI by Salovey and Mayer (1990). A second objective was to investigate whether mentoring can support leaders in developing EI. Additionally, we considered gender, the occupational role, the organization, and the VET sector as mediating and moderating variables.

In the rest of this section, we introduce the study's main theoretical concepts: mentoring, well-being, and EI.

Theoretical background

Mentoring

Mentorship has been described as a pedagogical tool. It is a process between a professionally active person (the mentor) and a protégé, which is democratic, involves deep reflection, and includes psychological and emotional support (Arnesson and Albinsson, 2017). Traditionally, mentoring involves a formally arranged one-on-one relationship between an experienced mentor and a less experienced mentee at an early career stage (Opengart and Bierema, 2015). However, informal mentoring relationships can also exist in workplace settings (Baugh and Fagenson-Eland, 2007).

Diversifying career and employment contexts have led research and practice to understand mentoring as "a multiple developmental relationship phenomenon" (Higgins and Kram, 2001, p. 264), occurring in new forms such as peer, virtual, topical, situational, and (inter-) cultural mentoring (Irby et al., 2017). Additionally, the stage in which mentoring occurs has extended from focusing on early career to later career stages, as well as specific purpose-related stages such as career transitions. The practices described in mentoring are "multifaceted, ambiguous […] contextually driven" and process-related (Gallucci et al., 2010; Mullen, 2012, p. 8). In recent years, we have also seen a rise in professional mentoring programs offering a criteria-based matching of mentor and mentee and a structured process. Mentoring has a developmental function for personal learning and growth, emphasizing the strong individualized learning type, including close support and feedback.

Mentoring research in educational contexts has been conducted with an academic or school-based focus. However, school-based research mainly focuses on teaching staff and their job satisfaction and retention (Renbarger and Davis, 2019). The rising complexity and systemic change of educational leaders' roles call for structured mentoring opportunities to offer support and continuous development. Researchers have reported an effect of mentoring on educational leaders' identity and self-efficacy through critical reflection (Rhodes and Fletcher, 2013; Muir, 2014). Gimbel and Kefor (2018) highlight the importance of deep thinking and joint reflection for decision-making on staff retention in a structured principal

mentoring initiative. The ever-changing demands on educators call for measures to reduce the risk of "work-related stress, anxiety, burnout and increasing work-life imbalance," and mentoring can be a helpful tool in this regard (Kutsyuruba and Godden, 2019, p. 229). Consequently, these issues call for a focus on well-being in education since leaders are concerned with the well-being of students, lecturers, and administrative staff and must provide learning environments conducive to these needs. However, as Kutsyuruba and Godden (2019) point out, educational leaders also need to be attuned to their own well-being as a basis for fostering the well-being of others.

Well-being

Next, to basic human needs, well-being can be seen as one of the elementary topics in life. Behavioral scientists investigate "the factors that lead people to think and experience their lives in positive versus negative ways" (Diener et al., 2018, p. 253). Subjective well-being (SWB) describes people's subjective evaluations of life focusing on a hedonic view of well-being as contrasted with a eudemonic view (Diener, 2009). The psychological concept of SWB is an umbrella term that comprises thoughts, judgments, and feelings (Diener and Ryan, 2009). Das et al. (2020) connect the feeling of well-being to the emotional or affective dimension of SWB, whereas they link thinking about it to an evaluative or cognitive dimension. The theoretical foundation for well-being is dispersed across various theories and can be argued to suffer from a lack of a coherent framework (Das et al., 2020).

Social support has repeatedly been found to positively affect SWB. The size of the social network, the quality of relationships, and interaction frequency all play a vital role (Chou, 1999; Olsson et al., 2014; Sandstrom and Dunn, 2014). High SWB also benefits supportive relationships, work performance, and resilience (Helliwell et al., 2020). In educational leadership, the research focused on SWB is based on quantitative methods and the individual perspectives of leaders. Amongst other themes, COVID-19 initiated an impetus to research the well-being of educational leaders, including principals, middle-managers, administrative staff, and students (Swapp, 2020; Chen et al., 2023). Factors typically impacting principals' levels of SWB include workplace bullying, balancing work and family demands, and working conditions (Buonomo et al., 2020; DeMatthews et al., 2023). Working conditions influencing principals' job performance and well-being include the institution's organizational culture and work motivation (Ekosusilo, 2020). Beausaert et al. (2021) identified social capital as collegial support from inside and outside the school environment, collaboration, and trust in management to predict principals' well-being positively. Chen et al. (2023, p. 15) highlight the recent research focusing on "interaction with leadership and on promoting well-being."

Well-being and mentoring

Mentoring has been discussed widely as a tool to support well-being (Hobson and van Nieuwerburgh, 2022). Longitudinal data from Boeder et al. (2021) suggest that career mentoring in emerging adulthood is linked to later flourishing and SWB. Firzly et al. (2021) showed that the mentor's need-supportive interpersonal behaviors were linked to greater autonomous motivation and, thus, to greater well-being. In a comparative study in Portugal, Simões and Alarcão (2014) identified no significant differences between mentored and non-mentored students in how a mentoring program satisfied their basic psychological needs and, in turn, improved their well-being. The early focus of mentoring and well-being research and practice was on students and teachers. However, in recent years, this focus has shifted to educational leadership and its development (Kutsyuruba and Godden, 2019; Hobson and van Nieuwerburgh, 2022), suggesting a need for mentoring structures for educational leaders. According to Howley et al. (2002), more than two-thirds of new school leaders in a leadership program ranked mentoring as a key component of the program. In a sample of professors and Master's students in higher education, Woloshyn et al. (2021) focused on students' well-being, support, and mentorship. They found that personal and professional support (including mentoring) predicted well-being for professors, whereas, for students, the professors' mentorship had little effect on their well-being. Recently, Connery and Frick (2021) reported that leaders perceived a development in their communication, time management, leadership competencies, and situational problem-solving through participating in a formal mentoring program. Furthermore, Huffman (2018) reports that mentored principals indicated that they developed interpersonal collaboration, school scheduling, delegation, and designing professional learning. A recent study on the effect of mentoring VET leaders revealed that leadership presented a driving mechanism, whereas well-being was the ultimate outcome (Prummer et al., 2024).

Based on the recent findings, we identify two foci in the latest research: well-being and developing necessary leadership competencies. This raises the question of whether mentoring programs that lead to a rise in well-being also result in (well-being) competencies that leaders can apply in their work contexts. Our understanding of competence is based on a dispositional construct that has to be theoretically and cognitively understood to be executed in a real-life setting (Pittich, 2014). Well-being research has previously linked high well-being with EI or emotional competence (Schutte et al., 2002; Diener and Ryan, 2009).

Emotional intelligence

In recent years, there has been a trend to focus on emotions in the workplace and understand how they influence how we engage, make decisions, and communicate. The concept of EI subsumes this. However, as Roberts et al. (2008, p. 710) put it, there are "knowns and unknowns" when it comes to EI. Epistemologies describe EI as "a competence, a skill, an adaptive outcome, a set of cultural beliefs, or some other construct" (Roberts et al., 2008, p. 711). Most common definitions of EI across various models 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 in order to promote emotional and intellectual growth." (Mayer et al., 2004, p. 197). Thus, EI can be described as a "co-operative combination of intelligence and emotion"; in other words, it is something people can feel and express because they are competent to do so and apply this competence in different contexts (Jonker and Vosloo, 2008, p. 21).

Three prominent streams of EI research conceptualize EI as either a trait, an ability, or a combination of the two (Ashkanasy and Daus, 2005; Pérez et al., 2005). Trait EI is measured using self-report questionnaires, whereas ability EI—also known as cognitive-emotional ability—is measured using maximal performance tests. Because emotional experiences are subjective, they are not accessible to objective grading methods (Spain et al., 2000; Furnham and Petrides, 2003). Being emotionally intelligent does not imply that people can simultaneously apply and regulate this knowledge in real life. This understanding has led some researchers and practitioners to recalibrate from speaking about and assessing EI to focusing on (social) emotional competence. Thus, as Bar-On et al. (2007, p. Xiii) put it, this raises the question of whether we can "educat[e] people to be emotionally intelligent." Grant (2007) and Tschannen-Moran and Carter (2016) provide evidence that training fosters EI in coaching. In educational leadership development, Núñez et al. (2023) evaluated leaders' EI competencies and found significant positive differences in social awareness and relationship management. However, development programs aiming at or integrating EI competencies are still scarce.

EI, SWB, educational leadership development, and mentoring nexus

Based on the theoretical background provided above, we can now integrate the conceptual and empirical findings on mentoring, SWB, and EI and how they interrelate. In addition to SWB, discussed above, EI relates to other constructs in psychology and social sciences, such as empathy, physical health, social interaction, and performance at school and the workplace (Bar-On et al., 2007). Trait EI is conceptually and empirically related to happiness and well-being (Palmer et al., 2002). Evidence suggests that EI correlates with various outcomes that signal social-emotional well-being (Zeidner et al., 2012) and improves well-being and social relationships (Nelis et al., 2009). More precisely, EI might help to manage emotionally challenging encounters (Lenaghan et al., 2007) and to work through positive and negative emotions to impact job satisfaction (Kafetsios and Zampetakis, 2008). However, other studies may fail to find a relationship between EI and SWB (Zeidner and Olnick-Shemesh, 2010).

In education, Lucas-Mangas et al. (2022) showed that adjusting SWB predicts the mismatch in teachers' work through regulating relationships, the school environment, and having a purpose in life. In a systematic review of EI and school leadership, Gómez-Leal et al. (2021) identified competencies such as self-awareness, self-management, empathy, communication, and conflict management. This implies the critical nexus of EI and SWB for effective leadership "that influences the school climate, teachers' commitment, and well-being; family and community partnerships, and student outcomes" (Mahfouz et al., 2019, p. 2). The changing school environment highlights the need for development programs for (middle space) leaders since school quality improvement relates to educational leadership preparation and development (Eacott and Asuga, 2014; Armstrong, 2015). In the school environment, also related to the challenges of the 21st century, amplified emotional reactions based on conflict, change, and ambiguity are increasing. Thus, Schmidt (2010) advocates combining cognitive and emotional factors in school leadership development based on the above-described contexts.

In the era of lifelong learning, professional development must occur in different career stages and management levels. In recent years, professional development has shifted from a one-sided focus on teachers and students to designing programs for educational leaders. With the theoretical understanding of SWB and EI as a basis, the question arises of how professional development can support leaders' EI and SWB. Most leadership programs provide a one-size-fits-all perspective on development, but there have also been context-and competence-specific initiatives in different countries (Núñez et al., 2023). Additional support structures are necessary alongside professional development, and mentoring can bridge this gap (Faizuddin et al., 2022).

There is a need for mentoring programs to support and develop leaders' EI. These might be based on experience from providing mentoring opportunities to address SWB of mentees and evidence of how EI is related to SWB (Middlewood and Bush, 2013). Researchers point out that EI competencies can be developed through coaching and mentoring (Boyatzis, 2007; Corrie, 2015). Research on the connection between mentoring and EI highlights the perceived contribution to mentees' EI by influential mentors (Shapira-Lishchinsky and Levy-Gazenfrantz, 2016) and an indirect association between mentees' EI and trust in mentors (Chun et al., 2010). Further research is scarce or investigates additional constructs such as intimacy (Bennetts, 2002), salary (Rode et al., 2017), and leadership styles (Yong, 2013). The career-enhancing potential of EI and mentoring—and the research gap in this area—call for a more detailed look at connecting the two.

Research context

Our study focuses on a context that is underrepresented in the literature in terms of sector (VET), geographic location (the Global South), and target group (leaders). As such, we contribute to answering a need for greater representation of different samples, as Henrich et al. (2010) recommended. The VET sector in South Africa is responsible for providing skilled workers for the South African labor market (Department for Higher Education and Training (DHET), 2024). It comprises 50 VET colleges, 710,000 enrolled students, and 3,500 senior and middle management staff. Internationally, academization simultaneously poses a trend and challenge that affects the VET sector (Stalder et al., 2022). In South Africa, the disconnection between the economy and the education system and a high unemployment rate (especially among young people) add to this challenge (Kraak, 2008). The low level of learners' achievement in VET appears to be related to the productivity of VET educators and their lack of conceptual and content knowledge (OECD, 2008). Politically, the education system in South Africa is driven by policy mandates and regulations, which make it challenging for leaders to enact and implement institutional change (Grobler et al., 2017). The 2021 innovation report for VET colleges highlighted the need for a new type of leadership that involves "intrasectoral mentorship through innovation, and innovation through mentorship" (National

Advisory Council Innovation, 2021, p. 7). While the report does not address (emotional) competence development, the leaders highlight the importance of a culture of change, which is still missing, to answer the innovation needs of the VET sector. To lead change processes, leaders must be equipped with emotional competencies such as emotional awareness (Higgs and Rowland, 2010; Wang et al., 2016).

The context for the present study is a professional leadership program aimed at VET managers in South Africa. The program includes a three-pillar mentoring framework consisting of individual, peer group, and key performance area mentoring (Smit and Bester, 2022; Prummer et al., 2024). Compared with higher education and general education, VET is still under-researched (Papier, 2018). We employed a quantitative between-groups research design by contrasting mentored leaders', non-mentored leaders' and lecturers' results of the SREIT.

Research questions

We examine the connection between mentoring and EI. A previous study with VET leaders in South Africa suggested that leaders participating in the mentoring framework perceived SWB as an important outcome (Prummer et al., 2024). Using the connection between SWB and EI as a basis and to better understand how EI might have contributed to this result, we formulated five research questions (RQs), outlined below.

RQ1: What is the underlying factor structure of the SREIT in the South African VET context?

To address RQ1—to validate the SREIT used to test for EI in the sample—we conducted exploratory and confirmatory factor analyses to explore and confirm the underlying factor structure for the South African VET context because previous studies highlighted inconsistencies in the factor structure especially across different cultures (Davies et al., 2010; Pisnar et al., 2022).

RQ2: Are there any significant differences in the identified factors between leaders who participated in the mentoring framework and leaders and lecturers who did not?

To address RQ2, we focused on identifying the differences between the groups. As a rule for testing our research hypotheses (below), we adhere to the following principles. For direct effects, t-test statistics and p-values are produced; if the p-value is less than 0.05, the difference is statistically significant. A bootstrapped 95% confidence interval (CI) is provided for indirect effects.

> *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.

RQ3: Which of the three mentoring types (individual professional, peer-group, key performance area mentoring) included in the mentoring framework do leaders perceive to best support them in developing emotional intelligence?

Since the mentoring framework comprises three mentoring types, we were interested in determining which type is most suitable for developing EI. We used the leaders who participated in the mentoring framework as the sample.

RQ4: 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?

Taking the VET system in South Africa as a broader research context, we additionally wanted to understand if the perceived importance of EI (regarding job position, VET school, and VET sector in South Africa) influences the identified factors. The occupational role, the organization, and the sector in which individuals work need to be considered.

> *H2*: 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.

RQ5: Does gender moderate leaders' and lecturers' perceived importance of EI (regarding job position, VET school, and VET in South Africa) in the identified factors?

Finally, in line with previous research investigating gender differences in EI among students, we wanted to investigate the effect a leader's gender plays in the South African VET system. Previous research in the South African context showed that teachers perceived their female school leaders to have significantly higher inter- and intrapersonal emotional competence than male respondents (Grobler, 2014).

> *H3*: Gender significantly moderates the perceived importance of EI in the identified factors.

Methodology

Sample and data collection

The study is based on data collected in the VET sector in South Africa. We e-mailed VET leaders who participated in the mentoring program of the first and second cohorts, while the third cohort received information about the study during an online synchronous session in which the data collection occurred. To compose the control group, the Department of Higher Education and Training facilitated access to VET leaders who did not participate in the mentoring program, using official communication channels. The treatment and control group composite reflected the whole

TABLE 1 Participants' socio-demographic variables.

	N	Gender (*n*)	Age		
			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 Head of Department (HoD) = 10 Manager = 30
Non-mentored leaders	47	M = 55 F = 36 NB = 0 TR = 0	47.99 (9.63)	48.00 (15.00)	(Vice) Principal = 5 Head of Department (HoD) = 15 Manager = 27
Lecturers	44				Lecturer = 44

Demographic and professional profile of mentored and non-mentored leaders and lecturers, including gender, age, and position. M, male; F, female; NB, non-binary; TR, trans.

VET sector in South Africa. All participants were asked to participate voluntarily, and information on data handling, security, and participants' rights was given verbally and/or in written form. The data collection with those participating in the program (N=48) took place from October to November 2022. The data collection with the control group (N=95) occurred from April to May 2023. The data collection was administered through Unipark, an online survey tool ensuring participants' anonymity and confidentiality to adhere to ethical data handling. We removed four participants from the sample because they did not meet the inclusion criteria. The remainder completed all the questions of the survey. Table 1 gives an overview of the socio-demographic variables of the sample.

We employed G*Power software (version 3.1.9.4) (Faul et al., 2007) to calculate minimum sample sizes, carefully considering the effect size as a critical factor in this calculation. Small effect sizes were disregarded, as detecting them may lack real-world and practical significance (Baicus and Caraiola, 2009; Peeters, 2016). Accordingly, we input medium effect sizes in G*Power, as their minimum sample size requirement is stricter than that of large effect sizes. We set alpha at 0.05 and use two-tailed tests. Minimum sample sizes were determined: 84 for correlations, 55 for mediation and moderated mediation analysis, and 43 per group for the Mann–Whitney test. Considering all the minimum sample size requirements, the total sample size of 139 is sufficient for all statistical tests to have a power of at least 0.8. However, when considering the sample sizes of the separate groups (see Table 1), if only managers and heads of department (HoDs) of the mentored group were considered, the sample size would be 40, short of the 43 per group requirement for the Mann–Whitney test to have sufficient power. Accordingly, we included the eight (vice) principals in the mentored group for our statistical analyses. For the group that was not mentored, separate analyses were conducted for managers (47) and lecturers (44) who met the criteria. For factor analysis, the minimum sample size recommendations have been disputed in the literature for decades (Taherdoost et al., 2022), with recommendations based on a constant value or a minimum number of observations per variable. In recent research, it is argued that, when using a constant value, the absolute minimum is 50 observations, and when using the ratio of observations to variables, the ratio should be at least larger than 3:1. When considering both scenarios, we judged our sample size to be sufficient.

Instrument

We used the SREIT, which was developed and validated by Schutte et al. (1998) and based on the trait EI model by Salovey and Mayer (1990). Schutte et al. (1998, p. 174) describe EI "as a somewhat enduring, trait-like characteristic", highlighting the potential for individuals with low EI scale scores to benefit from "special guidance, training or support" (p. 176). This understanding reflects the developmental nature of EI and emphasizes the need to understand more about educational tools for this purpose. Previous studies investigating the SREIT showed good internal consistency, test-rest reliability, and construct validity (Pisnar et al., 2022). It is one of the most extensively used EI tests (O'Connor et al., 2019). A further advantage over other instruments is its brevity and free availability for research. The SREIT comprises 33 statements, much shorter than the leading commercial trait EI instrument, the Bar-on, with 133 items. Three statements are reverse-scored, and participants use a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). It tests self-reported trait EI and consists of four factors: *optimism/mood regulation*, *appraisal of emotions*, *social skills*, and *utilization of emotions*.

Jonker and Vosloo (2008) culturally validated the SREIT in the South African higher education context. They identified six factors (*positive affect*, *emotion-others*, *happy emotions*, *emotions-own*, *non-verbal emotions*, and *emotional management*). Results indicated significant differences between gender and language groups. However, further research points to inconsistencies in the factor structure. Pisnar et al. (2022) found four factors (although they only used 21 of the 33 items). Davies et al. (2010) stated that an expert panel found 17 items unsuitable for analysis and thus used only 10 items, finding a 5-factor solution.

In addition to the SREIT, we included questions concerning socio-demographic characteristics (see Table 1), the perceived development of EI through each of the three mentoring types employed in the program, and the perceived importance of EI for the leaders' position, VET-school, and VET sector in South Africa (*How important would you rate EI for your current job position/your VET school/the VET sector in South Africa?*).

Data analysis

For all statistical analyses, the Statistical Package for Social Sciences (SPSS, version 29) was used. An exploratory factor analysis (EFA) was conducted to address RQ1, exploring the underlying factor structure using Promax rotation (which allows for factors to exhibit some degree of correlation between them). Factors with eigenvalues greater than one were retained. An iterative process was followed where items with communalities less than 0.3 and factor loadings of less than 0.6 were systematically removed, and subsequent EFAs were performed. After several iterations, the final factor structure was obtained (see Results section).

TABLE 2 Factor structure of the SREIT instrument in the present study.

Items	Component					
	1	2	3	4	5	6
Q13: I arrange events others enjoy	**0.888**	0.053	−0.074	0.032	−0.081	0.076
Q14: I seek activities that make me happy	**0.880**	−0.028	0.120	−0.043	0.055	−0.080
Q33_RS: It is difficult for me to understand why people feel the way they do	−0.060	**0.837**	0.115	−0.121	−0.105	0.219
Q5_RS: I find it hard to understand the non-verbal messages of other people	0.083	**0.812**	−0.113	0.128	0.017	−0.155
Q1: I know when to speak about my personal problem to others	−0.014	0.048	**0.849**	0.073	−0.071	−0.151
Q2: When I am faced with obstacles, I remember times I faced similar obstacles and overcame them	0.062	−0.056	**0.805**	−0.008	0.116	0.089
Q29: I know what other people are feeling just by looking at them	−0.041	−0.191	0.143	**0.875**	−0.137	0.135
Q32: I can tell how people are feeling by listening to the tone of their voice	0.037	0.254	−0.093	**0.774**	0.154	−0.054
Q21: I have control over my emotions	−0.108	−0.105	0.003	0.045	**0.903**	−0.065
Q9: I am aware of my emotions as I experience them	0.104	0.027	0.036	−0.073	**0.723**	0.156
Q4: Other people find it easy to confide in me	−0.067	0.250	0.048	0.034	0.067	**0.790**
Q7: When my mood changes, I see new possibilities	0.088	−0.292	−0.155	0.070	−0.014	**0.662**

Accepted factor loadings of above 0.6, resulting in a six-factor structure. RS, reverse scored.

TABLE 3 Confirmatory factor analysis results.

Statistic	Recommended values	Obtained values
Root mean-square error of approximations (RMSEA)	<0.10 (preferably <0.08)	0.059
Goodness-of-fit index (GFI)	0 (no fit)–1 (perfect fit)	0.935
Adjusted Goodness of Fit Index (AGFI)	0 (no fit)–1 (perfect fit)	0.870
Comparative fit index (CFI)	0 (no fit)–1 (perfect fit)	0.906
Tucker-Lewis Index (TLI)	0 (no fit)–1 (perfect fit)	0.841

CFA confirms the underlying factor structure, showing good results.

Following the EFA, a confirmatory factor analysis (CFA) was conducted to confirm the underlying factor structure. Once the factors were confirmed, the reliability and validity of the instrument were established. For the former, each factor's composite reliability (CR) values, representing each factor's internal consistency, were calculated. A CR of 0.6 or greater is deemed acceptable in exploratory research, and a value of 0.7 in general (Hair et al., 2022). Since this instrument was used for the first time in our research context, we deemed a value of 0.6 or more to be sufficient. Construct validity, which consists of convergent and discriminant validity, was performed to establish the instrument's validity. Convergent validity reflects the extent to which all items of a construct converge, thereby explaining the variance of the items. It is established when the construct's average variance extracted (AVE) is higher than 0.5 (Hair et al., 2022). Discriminant validity is the extent to which a construct is truly distinct from other constructs and is verified when the value of correlations between constructs is less than the square root of the AVEs of their constructs (Hair et al., 2022).

To address the remaining research questions, it is important to note that the factors were created by averaging over the items that loaded onto them; thus, continuous variables were created. We tested the normality of our distribution to decide whether parametric tests could be used to analyze the data. The Shapiro–Wilk test indicated that the underlying distributions for all six factors were non-normal; accordingly, non-parametric tests were used.

For RQ2, the non-parametric Mann–Whitney U test (Z_U) was used to test for differences between two independent groups. For RQ3, descriptive analysis was used. For RQs 4 and 5, mediation effects between variables were tested through PROCESS Model 4 and the moderated mediation effects using PROCESS Model 59 (Hayes, 2022). For direct effects, *t*-test statistics and *p*-values were produced. A bootstrap sample with a 95% confidence interval (CI) is provided for indirect effects. When interpreting the effects of the mediation and moderated mediation analyses, categories of male were coded "1" and female "0," or lecturer "1" and manager "0."

Results

RQ1: What is the underlying factor structure of the SREIT in the South African VET context?

After several iterations that involved removing items, the final EFA indicated an acceptable Kaiser-Meyer-Olkin (KMO) value of 0.549, and Bartlett's test of sphericity ($p < 0.001$) suggested the feasibility of dimension reduction. Six factors were extracted, collectively explaining 73.0% of the total variance (Table 2).

Factor 1 (items 13 and 14) was named *social engagement*. Factor 2 (items 33 and 5, both reverse-scored) was named *empathy difficulty*. Factor 3 (items 1 and 2) was named *resilience*. Factor 4 (items 29 and 32) was named *emotional perceptiveness*. Factor 5 (items 21 and 9) was named *emotional regulation*. Factor 6 (items 4 and 7) was named *trustworthy visionary*.

A CFA confirmed the underlying factor structure (RMSEA = 0.059; CFI = 0.906; GFI = 0.935), all indicating a good model fit (RMSEA less than 0.08), comparative fit index, and goodness-of-fit index (greater than 0.9) (Table 3).

Regarding measurement invariance, configural invariance was established for the non-mentored leaders and lecturers, and the mentored leaders, meaning the 6-factor structure held for both groups. While there were some indications of potential challenges in achieving metric, scalar, and strict invariance, it is noteworthy that imposing the strictest levels of invariance has been regarded as excessively stringent (Flake et al., 2022).

The CR value for each factor was calculated using the factor loadings of the EFA. Table 4 shows that the CR values for all factors were above 0.6, establishing the instrument's reliability. Table 4 also shows that all AVE values were above 0.5, establishing convergent validity.

Table 5 shows the correlations between the constructs with the square root of the AVE in brackets.

The absolute values of the correlations were less than the square root of the AVE, thereby establishing discriminant validity. Thus, by establishing both convergent and discriminant validity, the construct validity of the instrument was established. In summary, the EFA and CFA provided good results and indicated a six-factor structure including 12 items for the VET context in which we apply the SREIT.

TABLE 4 Reliability and convergent validity measures.

Factor/Construct	Number of items	CR	AVE
Factor 1: Social Engagement	2	0.877	0.781
Factor 2: Empathy Difficulty	2	0.809	0.680
Factor 3: Resilience	2	0.813	0.684
Factor 4: Emotional Perceptiveness	2	0.811	0.682
Factor 5: Emotional Regulation	2	0.800	0.669
Factor 6: Trustworthy Visionary	2	0.692	0.531

Composite reliability (CR) values establish reliability, and average variance extracted (AVE) values establish the validity of the instrument.

RQ2: Are there any significant differences in the identified factors between leaders and lecturers who participated in the mentoring framework and those who did not?

Mann–Whitney U tests were used to determine whether there were any significant differences in the six identified factors between occupations. When comparing the factor scores between the non-mentored leaders and lecturers ($N=91$) and the mentored leaders ($N=48$), only the score for Factor 2 *Empathy difficulty* differed significantly ($Z_U=-2.146$, $p=0.032$), with the score for the non-mentored group being significantly higher (Mdn = 4.00 (IQR = 1.00)) than those of the mentored group (Mdn = 3.50 (IQR = 1.00)). When comparing the factor scores between the leaders ($N=47$) and the lecturers ($N=44$) in the non-mentored group, no significant differences were found (Z_U ranged from 0.061 to 1.152, p-values ranged from 0.249 to 0.951).

RQ3: Which of the three mentoring types (individual professional, peer-group, key performance area mentoring) included in the mentoring framework do leaders perceive to best support them in developing emotional intelligence?

To answer this RQ, we used descriptive statistics to show the differences (M, Mdn) between the responses of the managers, the HoDs, and the principals using a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*extremely*) (Table 6). Table 6 shows that leaders across all occupational roles (managers, HoDs, and principals) perceived peer group mentoring to best support them in developing EI with an overall mean of 4.17 (SD = 0.75; range of M = 4.00–4.23). When

TABLE 5 Discriminant validity measures.

Factor	Factor					
	1	2	3	4	5	6
1: Social Engagement	(0.884)					
2: Empathy Difficulty	−0.050	(0.825)				
3: Resilience	0.101	0.288	(0.827)			
4: Emotional Perceptiveness	0.122	0.039	0.188	(0.826)		
5: Emotional Regulation	0.111	0.139	0.316	0.173	(0.818)	
6: Trustworthy Visionary	0.171	−0.010	0.078	0.164	0.128	(0.729)

Values of the correlations establish discriminant validity.

TABLE 6 Statistics of best support of mentoring type in developing EI across job positions.

	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 KPA 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)
Heads of Department	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)

Descriptive statistics: peer group mentoring best-supported leaders in developing EI across all job positions.

TABLE 7 Mediation analysis with non-mentored manager/lecturer group as independent variable ($n = 91$).

Mediation analysis	Dependent Variable				
	EI factors	Effect	SE	CI [95%]	
				Upper	Lower
Importance of EI for job position	Empathy difficulty	−0.105	0.067	−0.264	−0.006
	Resilience	−0.171	0.092	−0.383	−0.028
	Emotional regulation	−0.061	0.038	−0.152	−0.005
Importance of EI for VET school	Emotional perceptiveness	−0.034	0.029	−0.099	−0.015
	Trustworthy visionary	−0.119	0.092	−0.349	−0.001
Importance of EI for VET sector	Resilience	−0.073	0.053	−0.204	−0.002
	Trustworthy visionary	−0.103	0.068	−0.262	−0.005

Mediation analysis; IV = job occupation; DV = EI factors; mediator = the importance of EI; effect size, standard error (SE), and the upper and lower threshold of the 95% confidence interval (CI) are reported.

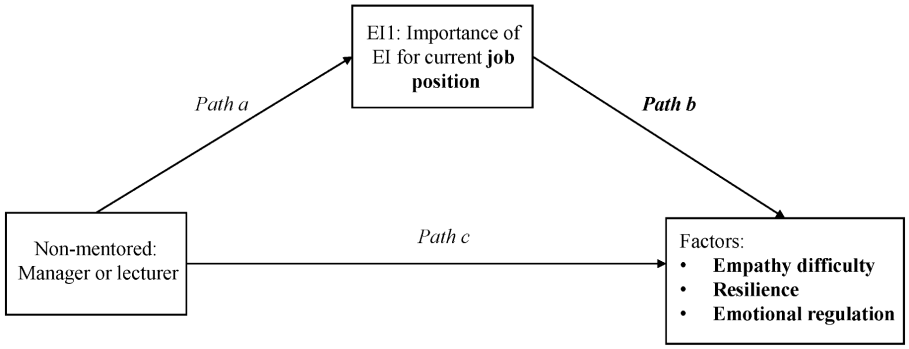

FIGURE 1
Indirect (path b) effect of the importance of EI for job position mediates occupational role and factors empathy difficulty, resilience, and emotional regulation.

comparing the overall score, the key performance area mentoring was perceived to support developing EI the least (M = 3.63), followed by the individual professional mentoring (M = 3.71).

RQ4: Does the perceived importance of EI (in terms of job position, VET school and VET sector in South Africa) mediate the score of the identified factors?

For the mediation analyses, various models were considered, with the independent variable (IV) being the different occupations (e.g., manager or lecturer), the dependent variable (DV) being one of the six factors, and the mediator (MED) being the various items measuring views on the importance of EI. The data composite reflects the whole VET sector in South Africa, allowing for an individual perspective on school level and a broader perspective of the sector. Since these different IV, DV, and MED combinations produced several models, only those where significant results were obtained are reported. We start with a discussion on the mediation analyses, followed by a discussion of the moderated mediation analyses.

The significant effects of the mediating analyses are reported in Table 7.

For Figure 1, only the indirect effect is significant, indicating that the view of the importance of EI for one's current job position has a mediating effect between the occupational role and *empathy difficulty*, *resilience*, and *emotional regulation*. The negative effects suggest that, on average, being a lecturer is associated with a decrease in each of the three factors compared to being a manager.

For Figure 2, only the indirect effect is significant, indicating that the view of the importance of EI for the VET school has a mediating effect between the occupation role and *emotional perceptiveness* and *trustworthy visionary*. The negative effect suggests that, on average, being a lecturer is associated with a decrease in each of the two factors compared to being a manager.

For Figure 3, only the indirect effect is significant, indicating that the view of the importance of EI for the VET sector has a mediating effect between the occupation role and *resilience* and *trustworthy visionary*. The negative effect suggests that, on average, being a lecturer is associated with a decrease in each of the two factors compared to being a manager.

RQ5: Does gender moderate the perceived importance of EI (regarding job position, VET school, and VET in South Africa) in the identified factors?

For the moderated mediation analyses, gender was added as the moderator (MOD). To determine whether gender moderated the

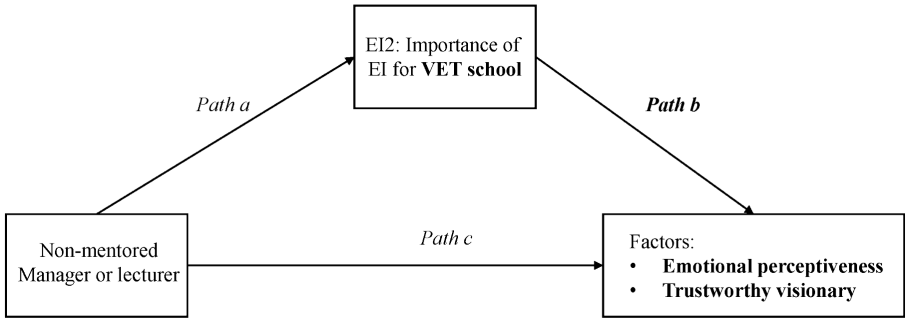

FIGURE 2
Indirect (path b) effect of the importance of EI for VET school mediates occupational role and factors emotional perceptiveness and trustworthy visionary.

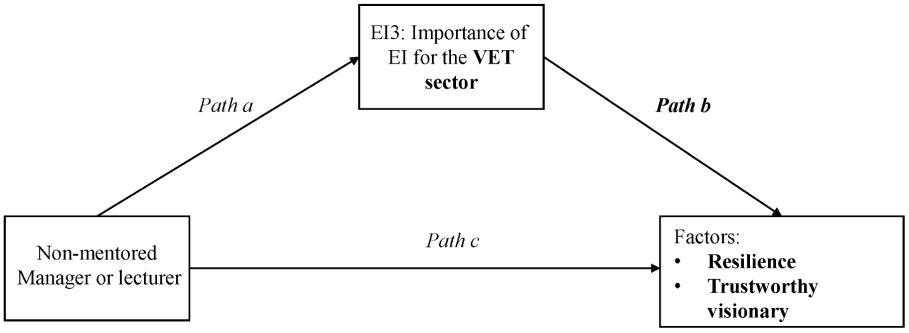

FIGURE 3
Indirect (path b) effect of the importance of EI for VET sector mediates occupational role and factors resilience and trustworthy visionary.

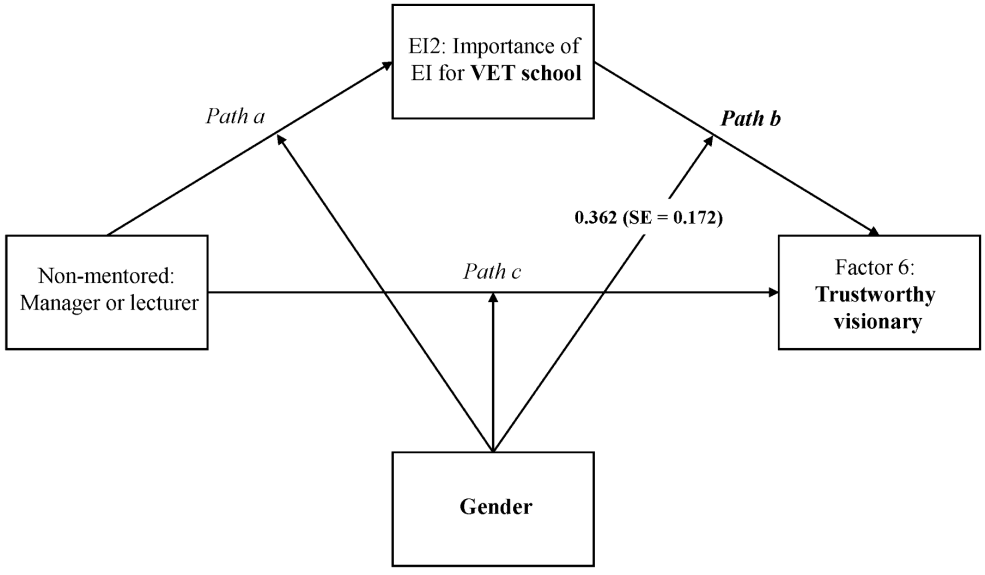

FIGURE 4
Indirect (path b) effect of the importance of EI for VET school between occupational role and factor trustworthy visionary is moderated by gender.

perceived importance of EI in the identified factors, we conducted a moderated mediation analysis. Only significant results are reported.

For Figure 4, only path *b* is significantly moderated ($t = 2.11$, $p = 0.038$), meaning that the effect of views on the importance of EI for one's VET school on *trustworthy visionary* varies based on gender. The

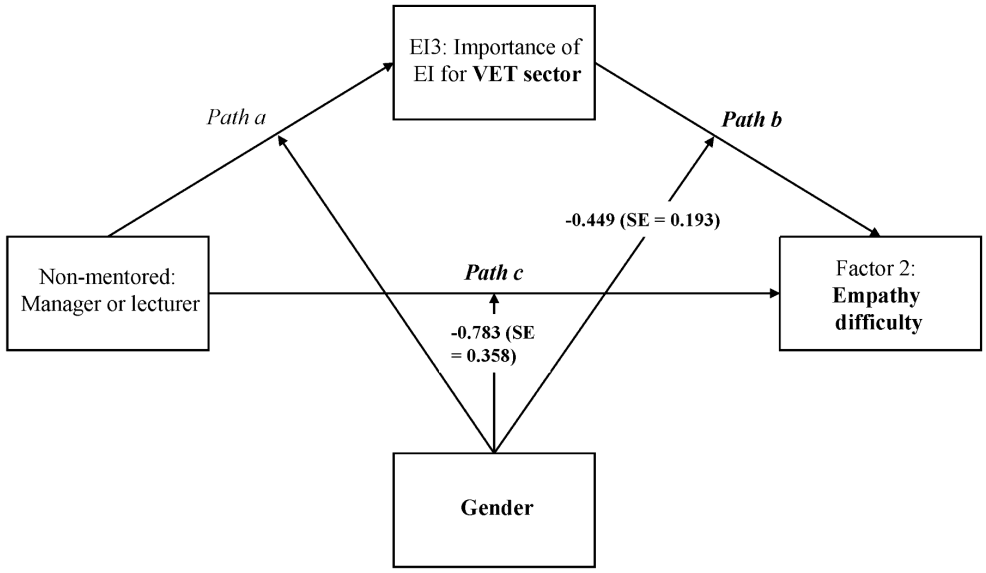

FIGURE 5
Indirect (path b) and direct (path c) effect of the importance of EI for VET sector between occupational role and factor empathy difficulty is moderated by gender.

positive effect of 0.362 (SE = 0.172) suggests that being male is associated with higher *trustworthy visionary* than being female.

For Figure 5, paths *b* and *c* are significantly moderated. The fact that the *b* path is significantly moderated ($t = -2.33$ $p = 0.022$) indicates that the effect of views on the importance of EI for the VET sector on *empathy difficulty* varies based on gender. The negative effect of −0.449 (SE = 0.193) suggests that, for this effect between views on the importance of EI for the VET sector and *empathy difficulty*, being male is associated with lower *empathy difficulty* than being female.

The fact that the *c* path is significantly moderated ($t = -2.19$, $p = 0.032$) indicates that the effect of occupation on *empathy difficulty* varies based on gender. The negative effect (−0.783 (SE = 0.358)) suggests that, for this effect between occupation and *empathy difficulty*, being male is associated with lower *empathy difficulty* than being female.

Discussion

Although scholars have proposed that (i) EI is relevant to mentoring, (ii) mentoring can improve EI, and (iii) mentoring can result in SWB (a factor of EI), there is scant evidence on whether and how mentoring can develop EI (Boyatzis, 2007; Corrie, 2015). We addressed this research gap by examining the relationship between the two constructs, providing data in the leadership area instead of higher education samples. Through EFA and CFA, we identified a six-factor structure of the SREIT (RQ1), which can provide a basis for further studies in South Africa and potentially the VET sector in other countries.

Our results indicate that, of the six identified factors, only the factor *difficulty empathy* showed significant differences between the control group and the mentored leaders (RQ2). According to the mentored leaders' perceptions, peer group mentoring was the most viable mentoring type to develop EI (RQ3). However, the higher the leaders' occupational role (manager, HoD, principal), the more the effect of this mentoring type seemed to diminish. When examining the mediating effect of the occupational role (RQ4), results indicated that the view of the importance of EI for one's current job position had a mediating effect between the occupational role and *empathy difficulty*, *resilience*, and *emotional regulation*. Being a lecturer was associated with a significant decrease in units in all factors. It is important to note that *empathy difficulty* is reverse-scored and led to significantly higher results for leaders. When looking at the mediating effect of the organization (RQ4), results indicated that the view of the importance of EI for one's organization had a mediating effect between the occupational role and the factors *emotional perceptiveness* and *trustworthy visionary*. When looking at the mediating effect of the VET sector (RQ4), results indicated that the view of the importance of EI for the VET sector had a mediating effect between the occupational role and the factors *resilience* and *trustworthy visionary*. When looking at the organizational perspective and the view of the importance of the VET sector on EI, our results highlight a mediating effect of gender (RQ5). Being male was associated with higher results in *trustworthy visionary* and *empathy* than being female.

Based on our between-groups design, our findings (RQ2) align with those of Bryant and Aytes (2021), who used a pre-post design to show that EI mentoring increased gratitude. In our case, mentoring contributed significantly to developing empathy, conceptually related to gratitude (Pang et al., 2022). Our findings are further substantiated by earlier work from Young et al. (2018), who showed that diversified mentoring relationships might increase cultural intelligence and empathy due to mentors' exposure to mentees' challenging situations. Exposure to challenging situations implies a greater propensity for perspective-taking and adaptability, highlighted in a further study investigating the relationship between empathy and mentoring (Spencer et al., 2020). In a study with engineers, who generally exhibit comparatively low levels of empathy (Walther et al., 2017), Pappa et al. (2020) identified that engineers with more work experience perceived

empathy as more important than those with less experience. These findings relate to our study's target group of leaders who, in their context, also possess an elevated level of professional experience. However, in a study on improving compassion in managers through emotional competencies, Paakkanen et al. (2021) could not demonstrate a significant improvement between control and treatment groups.

Our study highlights the importance of peer practices in developing emotional competencies (RQ3) in organizational settings, as opposed to other practices such as traditional one-on-one mentoring and coaching. As part of a community, individuals can act emotionally intelligent and learn how to improve their EI by observing, expressing, and managing their own and others' emotions. Thus, acting with greater empathy—one indicator of EI in a group—can enhance one's and others' social and emotional competencies. Emotionally intelligent people also tend to desire greater social involvement, which can influence organizational social settings (Kaur and Hirudayaraj, 2021). The power individuals attribute to participatory practices in educational settings, such as peer group mentoring, has been researched in many contexts (Nicholson et al., 2018; Pashmforoosh et al., 2023). Priest and de Campos Paula (2016) highlight the critical role of student peers in establishing a leadership learning community and contributing to peers' positive perceptions of their leadership development. Understanding the advantages of communities of practice in education can have a transformative effect on schools' management and teaching practices, thus changing how those in charge envision and enact emotional and social learning for the next generation.

Given that our study has shown mediating effects between organizational factors and occupational roles (RQ4), we think it has some implications for professional development settings. Whereas Sturm et al. (2022) consider the effect organizational virtuousness and competence have on employee behaviors, our results showed that the effect of the organization and the work sector mediated leaders' *resilience* and *trustworthy visionary scores*. Considering that individuals are embedded in organizational structures, they 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 and Pfeffer, 1978; Lange et al., 2011; Sturm et al., 2022). This reciprocal relationship between organization and individual is important in professional development settings. The mediating effect on two EI factors implies that a mere individualistic perspective of development is insufficient to develop EI competencies holistically. If organizational well-being is considered a new criterion in 21st century organizations, everyone involved needs to be competent in emotional matters to support and implement this endeavor (Tay et al., 2023).

Contrary to common beliefs about gender-based roles, our data surprisingly showed that—for this sample—the socially established norms do not seem stable since male participants possessed higher levels of empathy than female participants when considering the occupational role (RQ5). Research predominantly acknowledges the notion that women are more emotionally intelligent, especially in the interpersonal dimensions of EI, such as empathy (Tommasi et al., 2023). Within the African context, data from Ethiopia draws a similar picture suggesting that female leaders scored higher in overall EI (Asmamaw and Semela, 2023). However, there is also neglected evidence showing that male participants scored higher, especially in the intrapersonal dimensions of EI (Perazzo et al., 2021; Tommasi et al., 2023). Our data provide information on leaders in the middle space offering a more detailed insight into educational leadership and gender distribution. Considering that our data is self-reported, Herbst (2020) raises the issue of self-perception accuracy among South African female managers in the higher education sector. She argues that women miss agency adding to an underrepresentation in leadership positions. However, when combining a performance and self-report test, suggesting emotional sensitivity to account for a gender difference, Fischer et al. (2018) found no significant difference between the two genders tested. Pérez-Díaz et al. (2021) found that civil status, occupation, educational attainment, and age significantly influenced trait EI across cultures. However, gender did not. With the current data and previous research in mind, it is necessary to consider contextual factors and systemic bias by gender roles and stereotypical beliefs (Löffler and Greitemeyer, 2023).

Limitations and implications for research and practice

The results provide a broad perspective on EI and mentoring for leadership development, including from an organizational perspective. Considering the limited research base in psychology and education, we are in the early stages of deciphering the interdependent relationships among EI, well-being, and mentoring. Due to our focus on addressing an underrepresented sample at the leadership and management level (unlike higher education-based samples), we had to accept a small sample size, resulting in a non-parametric statistical analysis. Further quantitative data collection in other underrepresented settings, with the identified factor structure and a pre-post design, could provide further evidence. Additionally, we would advise researchers to investigate *how* mentors and mentees perceive emotional competence development using a qualitative research design. Especially in the preliminary stages, grounded qualitative work can provide a theoretical base for understanding the nexus between EI, well-being, and mentoring.

Given that our focus was on identifying the leader mentees' perspective, we need to consider the impact of the mentors in the reciprocal relationship of each mentoring type. How mentors approach a mentoring relationship can be impactful, reflecting on mentored leaders who could respond differently depending on their attitude about their personality and whether change is possible. This understanding is reflected in Dweck's (2006) concept of growth mindset, in which leaders can either believe that their intelligence, personality, emotional thoughts, and personal attributes are fixed or that they can be developed (Bartz et al., 2018). In a recent study with professionals, Cleven et al. (2023) highlight the need for EI and a growth mindset in professional identity formation. Thus, further studies should substantiate the interconnection between EI and growth mindsets in underrepresented contexts.

One reason for the present results could be the socio-demographic characteristics of our sample. We asked participants about their age, gender, and occupational role. While our focus lay on occupational roles and the differences between the treatment and control groups, we need to consider the influence of socio-demographic variables in our data. For example, the level of professional experience correlates with age. In this study, the median age difference between the treatment

and control groups amounted to only three years despite including different occupational groups. This is one reason why we decided to omit age from the analysis. Since most studies include higher education students in their sample, it is difficult to compare our results to other studies. However, studying EI across the lifespan is necessary because leadership roles in organizations demand a different competence set compared with students in higher education. Furthermore, EI can mediate the relationship between age and well-being (Chen et al., 2016). When connecting age and gender, results showed that age mediated gender differences for EI (Fernández-Berrocal et al., 2012).

Lastly, the lack of a clear-cut conceptual and theoretical basis for EI also challenges this area's research. So does the overlap between EI and well-being (i.e., well-being as a salient component of trait EI; Furnham and Petrides, 2003). We also need to consider that EI was not a stated aim of the development program nor of the mentoring framework in which leaders participated. Nevertheless, some of the subconstructs of EI discussed in this paper—emotional regulation, empathy, and emotional perception—are naturally included in mentoring practices due to their psychosocial nature. Further research in each of the respective areas is thus necessary.

From a practical perspective, organizations must consider the value of emotionally intelligent individuals, irrespective of their occupational role. However, our focus on leaders in (educational) organizations and the importance that leaders ascribe to peer-mentoring practices suggests that EI is a topic for leadership development and practice. In conclusion, it is crucial to integrate mentoring structures at the leadership level to address emotional and well-being components. Emotionally authentic individuals are essential for personal and organizational development to thrive in the 21st century.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

KP: Conceptualization, Writing – original draft, Writing – review & editing. SH-V: Conceptualization, Writing – review & editing. MAG: Formal Analysis, Writing – review & editing. DP: Writing – review & editing.

Funding

The author(s) declare that no financial support was received for the research, authorship, and/or publication of this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

Armstrong, D. (2015). Listening to voices at the educational frontline: new administrators' experiences of the transition from teacher to vice-principal. *Brock Educ. J.* 24, 110–122. doi: 10.26522/brocked.v24i2.429

Arnesson, K., and Albinsson, G. (2017). Mentorship–a pedagogical method for integration of theory and practice in higher education. *Nordic J. Stud. Educ. Policy* 3, 202–217. doi: 10.1080/20020317.2017.1379346

Ashkanasy, N. M., and Daus, C. S. (2005). *Rumors of the death of emotional intelligence in organizational behavior are vastly exaggerated*, vol. *26*: John Wiley & Sons, Ltd, 441–452.

Asmamaw, A. T., and Semela, T. (2023). Are African academic women more emotionally intelligent than men? Exploring emotional intelligence, gender, and leadership in higher education. *Heliyon* 9:e22949. doi: 10.1016/j.heliyon.2023.e22949

Baicus, C., and Caraiola, S. (2009). Effect measure for quantitative endpoints: statistical versus clinical significance, or "how large the scale is?". *Eur. J. Intern. Med.* 20, e124–e125. doi: 10.1016/j.ejim.2008.10.002

Bar-On, R., Elias, M. J., and Maree, J. G. (2007). *Educating people to be emotionally intelligent*. Westport: Praeger Publishers Westport.

Bartz, D. E., Greenwood, S., Hall, L., and Rice, P. (2018). Emotional intelligence: a necessity to leaders' effectiveness. *Int. J. Manag. Business Admin.* 21, 1–12.

Baugh, S. G., and Fagenson-Eland, E. A. (2007). *Formal mentoring programs. The handbook of mentoring at work*. Thousand Oaks: Theory, Research, and Practice, 249–271.

Beausaert, S., Froehlich, D. E., Riley, P., and Gallant, A. (2021). What about school principals' well-being? The role of social capital. *Educ. Manag. Admin. Leadership* 51, 405–421. doi: 10.1177/1741143221991853

Bennetts, C. (2002). Traditional mentor relationships, intimacy and emotional intelligence. *Int. J. Qual. Stud. Educ.* 15, 155–170. doi: 10.1080/09518390110111893

Bertrand, L. A., Stader, D., and Copeland, S. (2018). Supporting new school leaders through mentoring. *School Leadership Rev.* 13:7 https://scholarworks.sfasu.edu/slr/vol13/iss2/7

Boeder, J., Fruiht, V., Hwang, S., Blanco, G., and Chan, T. (2021). Learning to love, work, and live your best life: mentoring in emerging adulthood predicts later flourishing and subjective well-being. *Emerg. Adulthood* 10, 1222–1234. doi: 10.1177/21676968211012879

Boyatzis, R. E. (2007). Developing emotional intelligence through coaching for leadership, professional and occupational excellence. *Educating people to be emotionally intelligent*, 155–168

Bryant, S., and Aytes, K. (2021). The impact of EI mentoring on emotional intelligence, gratitude, and stress: a quasi-experiment. *J. Organizational Psychol.* 21, 109–120. doi: 10.33423/jop.v21i2.4198

Buonomo, I., Benevene, P., and Fiorilli, C. (2020). Meaning of work in a group of school principals: the role of organizational variables. *J. Work. Learn.* 32, 389–403. doi: 10.1108/JWL-12-2019-0146

Bester, S. (2023). Exploring inclusive leadership and strategic visioning as pathways to well-being in TVET colleges. *Journal of Vocational, Adult and Continuing Education and Training*, 6 108–126. doi: 10.14426/jovacet.v6i1.316

Chen, J., Li, X., Hallinger, P., and Lee, J. C.-K. (2023). Looking back and ahead: a bibliometric review of research on principal well-being, 1962–2022. *Educational Management Administration Leadership*. 90217. doi: 10.1177/17411432231190217

Chen, Y., Peng, Y., and Fang, P. (2016). Emotional intelligence Mmediates the relationship between age and subjective well-being. *Int. J. Aging Hum. Dev.* 83, 91–107. doi: 10.1177/0091415016648705

Chou, K.-L. (1999). Social support and subjective well-being among Hong Kong Chinese young adults. *J. Genet. Psychol.* 160, 319–331. doi: 10.1080/00221329909595402

Chun, J., Litzky, B., Sosik, J., Bechtold, D., and Godshalk, V. (2010). Emotional intelligence and trust in formal mentoring programs. *Group Organization Manag.* 35, 421–455. doi: 10.1177/1059601110378293

Connery, L. A., and Frick, W. C. (2021). A formal administrator mentoring program: perceived learning benefits and insights into leadership well-being *Inquiry in Education*, 13, 3

Corrie, C. (2015). Becoming emotionally intelligent. *Education review. (Vol 2). Continuum inter*

Cleven, A. J., Renaud, A., Larose-Pierre, M., McQuade, B., Griffin, B. L., Johnson, C., et al. (2023). Associating Growth Mindset with Emotional Intelligence and Why It's Needed for Professional Identity Formation. *American Journal of Pharmaceutical Education*, 100110.

Das, K. V., Jones-Harrell, C., Fan, Y., Ramaswami, A., Orlove, B., and Botchwey, N. (2020). Understanding subjective well-being: perspectives from psychology and public health. *Public Health Rev.* 41, 25–32. doi: 10.1186/s40985-020-00142-5

Davies, K. A., Lane, A. M., Devonport, T. J., and Scott, J. A. (2010). Validity and reliability of a brief emotional intelligence scale (BEIS-10). *J. Individ. Differ.* 31, 198–208. doi: 10.1027/1614-0001/a000028

DeMatthews, D., Reyes, P., Solis Rodriguez, J., and Knight, D. (2023). Principal perceptions of the distance learning transition during the pandemic. *Educ. Policy* 37, 653–675. doi: 10.1177/08959048211049421

Department for Higher Education and Training (DHET) (2024). *White paper for post-school education and training—building an expanded, effective, and integrated post-school system*

Diener, E. (2009). *The science of well-being: The collected works of Ed Diener*, vol. *37*: Springer.

Diener, E., Oishi, S., and Tay, L. (2018). Advances in subjective well-being research. *Nat. Hum. Behav.* 2, 253–260. doi: 10.1038/s41562-018-0307-6

Diener, E., and Ryan, K. (2009). Subjective well-being: a general overview. *S. Afr. J. Psychol.* 39, 391–406. doi: 10.1177/008124630903900402

Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York: Random House Publishing Group.

Eacott, S., and Asuga, G. N. (2014). School leadership preparation and development in Africa:a critical insight. *Educ. Manag. Admin. Leadership* 42, 919–934. doi: 10.1177/1741143214523013

Ekosusilo, M. (2020). The impact of organizational culture, compensation on job satisfaction, and work motivation on school principal performance in Indonesia: mediating role of supply chain practices. *Int. J. Supply Chain Manag.* 9, 765–773. doi: 10.59160/ijscm.v9i1.4394

Faul, F., Erdfelder, E., Lang, A.-G., and Buchner, A. (2007). G* power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav. Res. Methods* 39, 175–191. doi: 10.3758/BF03193146

Fernández-Berrocal, P., Cabello, R., Castillo, R., and Extremera, N. (2012). Gender differences in emotional intelligence: the mediating effect of age. *Behav. Psychol.* 20, 77–89,

Firzly, N., Chamandy, M., Pelletier, L., and Lagacé, M. (2021). An examination of mentors' interpersonal behaviors and mentees' motivation, turnover intentions, engagement, and well-being. *J. Career Dev.* 49, 1317–1336. doi: 10.1177/0894845321103928 6

Fischer, A. H., Kret, M. E., and Broekens, J. (2018). Gender differences in emotion perception and self-reported emotional intelligence: a test of the emotion sensitivity hypothesis. *PLoS One* 13:e0190712. doi: 10.1371/journal.pone.0190712

Flake, J. K., Luong, R., and Shaw, M. (2022). Addressing a crisis of generalizability with large-scale construct validation. *Behav. Brain Sci.* 45:e14. doi: 10.1017/S0140525X21000376

Furnham, A., and Petrides, K. V. (2003). Trait emotional intelligence and happiness. *Soc. Behav. Personal. Int. J.* 31, 815–823. doi: 10.2224/sbp.2003.31.8.815

Faizuddin, A., Azizan, N. A., Othman, A., and Ismail, S. N. (2022). Continuous professional development programmes for school principals in the 21st century: Lessons learned from educational leadership practices [Original Research]. *Frontiers in Education*, 7. doi: 10.3389/feduc.2022.983807

Gallucci, C., Van Lare, M. D., Yoon, I. H., and Boatright, B. (2010). Instructional coaching: building theory about the role and organizational support for professional learning. *Am. Educ. Res. J.* 47, 919–963. doi: 10.3102/0002831210371497

Gimbel, P., and Kefor, K. (2018). Perceptions of a principal mentoring initiative. *NASSP Bull.* 102, 22–37. doi: 10.1177/0192636518754405

Gómez-Leal, R., Holzer, A., Bradley, C., Fernández-Berrocal, P., and Patti, J. (2021). The relationship between emotional intelligence and leadership in school leaders: a systematic review. *Camb. J. Educ.* 52, 1–21. doi: 10.1080/0305764X.2021.1927987

Grant, A. M. (2007). Enhancing coaching skills and emotional intelligence through training. *Ind. Commer. Train.* 39, 257–266. doi: 10.1108/00197850710761945

Grobler, B. (2014). Teachers' perceptions of the utilization of emotional competence by their school leaders in Gauteng South Africa. *Educ. Manag. Admin. Leadership* 42, 868–888. doi: 10.1177/1741143213513184

Grobler, B., Moloi, C., and Thakhordas, S. (2017). Teachers' perceptions of the utilisation of emotional intelligence by their school principals to manage mandated curriculum change processes. *Educ. Manag. Admin. Leadership* 45, 336–355. doi: 10.1177/1741143215608197

Hair, J. F., Babin, B. J., Anderson, R. E., and Black, W. C. (2022). *Multivariate Data Analysis. 9th* Edn: Cengage Learning.

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. 3rd* Edn. New York: Guilford Press.

Helliwell, J. F., Layard, R., Sachs, J., and De Neve, J. E. (2020). *World happiness report*, 2020.

Henrich, J., Heine, S. J., and Norenzayan, A. (2010). The weirdest people in the world? *Behav. Brain Sci.* 33, 61–83. doi: 10.1017/s0140525x0999152x

Herbst, T. H. H. (2020). Gender differences in self-perception accuracy: the confidence gap and women leaders' underrepresentation in academia. *SA J. Ind. Psychol.* 46, 1–8. doi: 10.4102/sajip.v46i0.1704

Higgins, M. C., and Kram, K. E. (2001). Reconceptualizing mentoring at work: a developmental network perspective. *Acad. Manag. Rev.* 26, 264–288. doi: 10.2307/259122

Higgs, M., and Rowland, D. (2010). Emperors with clothes on: the role of self-awareness in developing effective change leadership. *J. Chang. Manag.* 10, 369–385. doi: 10.1080/14697017.2010.516483

Hobson, A. J., and van Nieuwerburgh, C. J. (2022). Extending the research agenda on (ethical) coaching and mentoring in education: embracing mutuality and prioritising well-being. *Int. J. Mentor. Coach. Educ.* 11, 1–13. doi: 10.1108/IJMCE-11-2021-0099

Howley, A., Chadwick, K., and Howley, C. (2002). Networking for the nuts and bolts: the ironies of professional development for rural principals. *J. Res. Rural. Educ.* 17, 171–187,

Huffman, P. M. (2018). The implementation of a principal mentoring program and the corresponding impact on leadership practice. The College of William and Mary

Irby, B., Boswell, J., Abdelrahman, N., Lara-Aleco, R., and Tong, F. (2017). New horizons for mentoring research: exploring the present and past to frame the future. D. A. Clutterbuck, F. K. Kochan, L. Lunsford, N. Dominguez and J. Haddock-Millar (Eds.), *The SAGE handbook of mentoring*. Los Angeles: Sage, 119–128

Jonker, C. S., and Vosloo, C. (2008). The psychometric properties of the Schutte emotional intelligence scale: empirical research. *SA J. Ind. Psychol.* 34, 21–30. doi: 10.4102/sajip.v34i2.689

Kafetsios, K., and Zampetakis, L. A. (2008). Emotional intelligence and job satisfaction: testing the mediatory role of positive and negative affect at work. *Personal. Individ. Differ.* 44, 712–722. doi: 10.1016/j.paid.2007.10.004

Kaur, N., and Hirudayaraj, M. (2021). The role of leader emotional intelligence in organizational learning: a literature review using 4I framework. *New Horiz. Adult Educ. Human Res. Dev.* 33, 51–68. doi: 10.1002/nha3.20305

Kraak, A. (2008). Incoherence in the south African labour market for intermediate skills. *J. Educ. Work.* 21, 197–215. doi: 10.1080/13639080802214050

Kutsyuruba, B., and Godden, L. (2019). The role of mentoring and coaching as a means of supporting the well-being of educators and students. *Int. J. Mentor. Coach. Educ.* 8, 229–234. doi: 10.1108/IJMCE-12-2019-081

Lange, D., Lee, P. M., and Dai, Y. (2011). Organizational reputation: a review. *J. Manag.* 37, 153–184. doi: 10.1177/0149206310390963

Lenaghan, J. A., Buda, R., and Eisner, A. B. (2007). An examination of the role of emotional intelligence in work and family conflict. *J. Manag. Issues*, 76–94.

Löffler, C. S., and Greitemeyer, T. (2023). Are women the more empathetic gender? The effects of gender role expectations. *Curr. Psychol.* 42, 220–231. doi: 10.1007/s12144-020-01260-8

Lucas-Mangas, S., Valdivieso-León, L., Espinoza-Díaz, I. M., and Tous-Pallarés, J. (2022). Emotional intelligence, psychological well-being and burnout of active and in-training teachers. *Int. J. Environ. Res. Public Health* 19:3514. doi: 10.3390/ijerph19063514

Mahfouz, J., Greenberg, M. T., and Rodriguez, A. (2019). Principals' social and emotional competence: a key factor for creating caring schools. The Pennsylvania State University. Available at: https://prevention.psu.edu/publication/principals-social-and-emotional-competence-a-key-factor-for-creating-caring-schools/

Mayer, J. D., Salovey, P., and Caruso, D. R. (2004). *Emotional intelligence: Theory, findings, and implications*: Lawrence Erlbaum Associates, Inc.

Middlewood, D., and Bush, T. (2013). *Leading and managing people in education*: Leading and Managing People in Education, SAGE Publications Ltd.

Muir, D. (2014). Mentoring and leader identity development: a case study. *Hum. Resour. Dev. Q.* 25, 349–379. doi: 10.1002/hrdq.21194

Mullen, C. A. (2012). Mentoring: an overview, S. Fletcher and C. A. Mullen (Eds.), *The SAGE handbook of mentoring and coaching in education*, 7–23

National Advisory Council Innovation. (2021). The status of innovation in the TVET colleges. NACI, Available at: https://www.naci.org.za/index.php/studies/

Nelis, D., Quoidbach, J., Mikolajczak, M., and Hansenne, M. (2009). Increasing emotional intelligence: (how) is it possible? *Personal. Individ. Differ.* 47, 36–41. doi: 10.1016/j.paid.2009.01.046

Nicholson, L. J., Rodriguez-Cuadrado, S., and Woolhouse, C. (2018). Reframing peer mentoring as a route for developing an educational community of practice. *Mentor. Tutor. Partnership Learning* 26, 420–440. doi: 10.1080/13611267.2018.1530163

Núñez, M., Patti, J., and Latorre-Postigo, J. (2023). Developing emotional and social intelligence in an education leadership postgraduate program: perceptions of aspiring school leader: emotional and social intelligence leadership program. *Escritos de Psicología—Psychol. Writings* 16:14754. doi: 10.24310/espsiescpsi.v16i1.14754

O'Connor, P. J., Hill, A., Kaya, M., and Martin, B. (2019). The measurement of emotional intelligence: a critical review of the literature and recommendations for researchers and practitioners. *Front. Psychol.* 10:1116. doi: 10.3389/fpsyg.2019.01116

OECD (2008). *Reviews of national policies for education: South Africa*: OECD publishing Paris.

Olsson, L. A., Hurtig-Wennlöf, A., and Nilsson, T. K. (2014). Subjective well-being in Swedish active seniors and its relationship with physical activity and commonly available biomarkers. *Clin. Interv. Aging* 9, 1233–1239. doi: 10.2147/CIA.S63198

Opengart, R., and Bierema, L. (2015). Emotionally intelligent mentoring: Reconceptualizing effective mentoring relationships. *Hum. Resour. Dev. Rev.* 14, 234–258. doi: 10.1177/1534484315598434

Paakkanen, M., Martela, F., Hakanen, J., Uusitalo, L., and Pessi, A. (2021). Awakening compassion in managers—a new emotional skills intervention to improve managerial compassion. *J. Bus. Psychol.* 36, 1095–1108. doi: 10.1007/s10869-020-09723-2

Palmer, B., Donaldson, C., and Stough, C. (2002). Emotional intelligence and life satisfaction. *Personal. Individ. Differ.* 33, 1091–1100. doi: 10.1016/S0191-8869(01)00215-X

Pang, Y., Song, C., and Ma, C. (2022). Effect of different types of empathy on prosocial behavior: gratitude as mediator. *Front. Psychol.* 13:768827. doi: 10.3389/fpsyg.2022.768827

Papier, J. (2018). Researchable issues in vocational, adult and continuing education and training. *J. Vocat. Adult Contin. Educ. Training* 1, vi–x. doi: 10.14426/jovacet.v1i1.8

Pappa, C. I., Reinhold, S., Pittich, D., Vogel-Heuser, B., and Strobel, J. (2020), *Engineers' job-related perceptions of empathy in Germany. 2020 IEEE global engineering education conference (EDUCON)*

Pashmforoosh, R., Irby, B. J., Lara-Alecio, R., and Tong, F. (2023). Building school leaders' instructional leadership capacity through virtual professional leadership learning communities. *Front. Educ.* 8:68734. doi: 10.3389/feduc.2023.1168734

Peeters, M. J. (2016). Practical significance: moving beyond statistical significance. *Curr. Pharm. Teach. Learning* 8, 83–89. doi: 10.1016/j.cptl.2015.09.001

Perazzo, M. F., Abreu, L. G., Pérez-Díaz, P. A., Petrides, K. V., Granville-Garcia, A. F., and Paiva, S. M. (2021). Trait emotional intelligence questionnaire-short form: Brazilian validation and measurement invariance between the United Kingdom and Latin-American datasets. *J. Pers. Assess.* 103, 342–351. doi: 10.1080/00223891.2020.1758118

Pérez, J. C., Petrides, K. V., and Furnham, A. (2005). Measuring trait emotional intelligence. *Emotional Intelligence: An international handbook*, 181, 201

Pérez-Díaz, P. A., Perazzo, M. F., Chiesi, F., Marunic, G., Granville-Garcia, A. F., Paiva, S. M., et al. (2021). Invariance of the trait emotional intelligence construct across populations and sociodemographic variables. *Personal. Individ. Differ.* 169:110038. doi: 10.1016/j.paid.2020.110038

Pisnar, M., Vicente, J., De, B., Cordeiro, M., and Phadke, S. (2022). International comparative analysis of the Schutte self-report emotional intelligence scale. *Int. J. Bus Manag.* 17, 13–24. doi: 10.5539/ijbm.v17n8p13

Pittich, D. (2014). Dispositional approaches for measuring professional competence. *J. Tech. Educ.* 2, 95–116. doi: 10.48513/joted.v2i2.39

Priest, K. L., and de Campos Paula, A. L. (2016). Peer-led learning communities: exploring integrative high-impact educational practices for leadership education. *J. Leadership Educ.* 15, 86–95. doi: 10.12806/V15/I1/A1

Prummer, K., Human-Vogel, S., and Pittich, D. (2024). 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, 195–213. doi: 10.1108/IJMCE-03-2023-0032

Renbarger, R., and Davis, B. K. (2019). Mentors, self-efficacy, or professional development: which mediate job satisfaction for new teachers? A regression examination. *J. Teacher Educ. Educators* 8, 21–34.

Rhodes, C. (2012). Mentoring and coaching for leadership development in schools. S. Fletcher and C. A. Mullen (Eds.), *The SAGE handbook of mentoring and coaching in education*, 243–256

Rhodes, C., and Fletcher, S. (2013). Coaching and mentoring for self-efficacious leadership in schools. *Int. J. Mentor. Coach. Educ.* 2, 47–63. doi: 10.1108/20466851311323087

Roberts, R. D., Zeidner, M., and Matthews, G. (2008). Emotional intelligence: knowns and unknowns. G. Matthews, M. Zeidner and R. D. Roberts (Eds.), *The science of emotional intelligence: knowns and unknowns*, 419–474, Oxford University Press

Rode, J. C., Arthaud-Day, M., Ramaswami, A., and Howes, S. (2017). A time-lagged study of emotional intelligence and salary. *J. Vocat. Behav.* 101, 77–89. doi: 10.1016/j.jvb.2017.05.001

Saha, S., Das, R., Lim, W. M., Kumar, S., Malik, A., and Chillakuri, B. (2023). Emotional intelligence and leadership: insights for leading by feeling in the future of work. *Int. J. Manpow.* 44, 671–701. doi: 10.1108/IJM-12-2021-0690

Salancik, G. R., and Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Adm. Sci. Q.* 23, 224–253. doi: 10.2307/2392563

Salovey, P., and Mayer, J. D. (1990). Emotional intelligence. *Imagin. Cogn. Pers.* 9, 185–211. doi: 10.2190/DUGG-P24E-52WK-6CDG

Sánchez-Álvarez, N., Extremera, N., and Fernández-Berrocal, P. (2016). The relation between emotional intelligence and subjective well-being: a meta-analytic investigation. *J. Posit. Psychol.* 11, 276–285. doi: 10.1080/17439760.2015.1058968

Sandstrom, G. M., and Dunn, E. W. (2014). Social interactions and well-being: the surprising power of weak ties. *Personal. Soc. Psychol. Bull.* 40, 910–922. doi: 10.1177/0146167214529799

Schmidt, M. J. (2010). Is there a place for emotions within leadership preparation programmes? *J. Educ. Adm.* 48, 626–641. doi: 10.1108/09578231011067776

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., et al. (1998). Development and validation of a measure of emotional intelligence. *Personal. Individ. Differ.* 25, 167–177. doi: 10.1016/S0191-8869(98)00001-4

Schutte, N. S., Malouff, J. M., Simunek, M., McKenley, J., and Hollander, S. (2002). Characteristic emotional intelligence and emotional well-being. *Cognit. Emot.* 16, 769–785. doi: 10.1080/02699930143000482

Searby, L. J., and Armstrong, D. (2016). Supporting the development and professional growth of middle space educational leaders through mentoring. *Int. J. Mentor. Coach. Educ.* 5, 162–169. doi: 10.1108/IJMCE-06-2016-0054

Shapira-Lishchinsky, O., and Levy-Gazenfrantz, T. (2016). The multifaceted nature of mentors' authentic leadership and mentees' emotional intelligence: a critical perspective. *Educ. Manag. Admin. Leadership* 44, 951–969. doi: 10.1177/1741143215595413

Simões, F., and Alarcão, M. (2014). Promoting well-being in school-based mentoring through basic psychological needs support: does it really count? *J. Happiness Stud.* 15, 407–424. doi: 10.1007/s10902-013-9428-9

Spain, J. S., Eaton, L. G., and Funder, D. C. (2000). Perspective on personality: the relative accuracy of self versus others for the prediction of emotion and behavior. *J. Pers.* 68, 837–867. doi: 10.1111/1467-6494.00118

Spencer, R., Pryce, J., Barry, J., Walsh, J., and Basualdo-Delmonico, A. (2020). Deconstructing empathy: a qualitative examination of mentor perspective-taking and adaptability in youth mentoring relationships. *Child Youth Serv. Rev.* 114:105043. doi: 10.1016/j.childyouth.2020.105043

Stalder, B. E., Choy, S., and Le, A. H. (2022). The standing of vocational education: a global concern with diverse meanings and implications. *The standing of vocational education and the occupations it serves: current concerns and strategies for enhancing that standing*, 3–17. Springer

Sturm, R. E., Jolly, P. M., and Williams, S. D. (2022). It's a matter of organizational pride: how perceptions of organizational virtuousness and competence affect employee behaviors. *J. Bus. Psychol.* 37, 1079–1097. doi: 10.1007/s10869-021-09786-9

Swapp, D. H. (2020). Principal leadership and prioritizing equity in an era of work intensification: must wellbeing be sacrificed? *Can. J. Educ. Admin. Policy* 192, 52–59,

Smit, T., and Bester, S. (2022). TVET leaders' experiences of an enquiry-based blended-learning programme. *Journal of Vocational, Adult and Continuing Education and Training*, 5, 20. doi: 10.14426/jovacet.v5i1.250

Taherdoost, H., Sahibuddin, S., and Jalaliyoon, N. (2022). Exploratory factor analysis; concepts and theory. *Adv. Appl. Pure Math.* 27, 375–382.

Tay, L., Batz-Barbarich, C., Yang, L.-Q., and Wiese, C. W. (2023). Well-being: the ultimate criterion for organizational sciences. *J. Bus. Psychol.* 38, 1141–1157. doi: 10.1007/s10869-023-09908-5

Tommasi, M., Sergi, M. R., Picconi, L., and Saggino, A. (2023). The location of emotional intelligence measured by EQ-i in the personality and cognitive space: are there gender differences? *Front. Psychol.* 13:985847. doi: 10.3389/fpsyg.2022.985847

Tschannen-Moran, M., and Carter, C. B. (2016). Cultivating the emotional intelligence of instructional coaches. *Int. J. Mentor. Coach. Educ.* 5, 287–303. doi: 10.1108/IJMCE-02-2016-0008

Walther, J., Miller, S. E., and Sochacka, N. W. (2017). A model of empathy in engineering as a core skill, practice orientation, and professional way of being. *J. Eng. Educ.* 106, 123–148. doi: 10.1002/jee.20159

Wang, N., Wilhite, S., and Martino, D. (2016). Understanding the relationship between school leaders' social and emotional competence and their transformational leadership: the importance of self–other agreement. *Educ. Manag. Admin. Leadership* 44, 467–490. doi: 10.1177/1741143214558568

Woloshyn, V., Savage, M. J., Kaefer, T., Martinovic, D., and Ratkovic, S. (2021). Support, mentorship and well-being in Canadian and Croatian faculties of education: professor and student perspectives. *J. Educ. Dev.* 5, 82–101. doi: 10.20849/jed.v5i1.880

Yong, B. (2013). Relationship between emotional intelligence, motivation, integrity, spirituality, mentoring and servant leadership practices. *Arts Soc. Sci. J.*,

Young, C. A., Haffejee, B., and Corsun, D. L. (2018). Developing cultural intelligence and empathy through diversified mentoring relationships. *J. Manag. Educ.* 42, 319–346. doi: 10.1177/1052562917710687

Zeidner, M., Matthews, G., and Roberts, R. D. (2012). The emotional intelligence, health, and well-being nexus: what have we learned and what have we missed? *Appl. Psychol. Health Well Being* 4, 1–30. doi: 10.1111/j.1758-0854.2011.01062.x

Zeidner, M., and Olnick-Shemesh, D. (2010). Emotional intelligence and subjective well-being revisited. *Personal. Individ. Differ.* 48, 431–435. doi: 10.1016/j.paid.2009.11.011