Leading collegially: Shifting paradigms for effective student teacher mentoring during work-integrated learning

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Teacher training has long relied on experienced school mentors as role models for novice teachers. However, qualifications and experience alone cannot remain the prerequisites for teacher leadership in 21st century schools. How can experienced school mentors collegially mentor new teachers into leadership, without abrogating their responsibilities? In this article, a constructivist approach was explored to mentor new teachers into leadership with the focus on establishing symbiotic relationships based on the mutual continuous professional development (CPD) of experienced school mentors and novice teachers. A multi-faced approach to leadership is proposed. Data regarding the perceptions of 241 final-year student teachers of their mentors' collegial leadership competencies were collected using a questionnaire. The findings indicate the positive perceptions that the student teachers had of their mentors' collegial leadership competencies. In the study reported on here, the focus was on the perceived characteristics of experienced school mentors to assist student teachers with work-integrated learning. The findings provide insights into enhancing the interpersonal collegial competencies of experienced school mentors to improve the school-work-integrated knowledge of student teachers.

Keywords: collaborative leadership; continuous professional development; interpersonal competencies; mentoring; work-integrated learning

Introduction
"Tell me and I forget. Teach me and I remember. Involve me and I learn" (Benjamin Franklin, in Medrut, n.d.)
As noted by Franklin, there seems to be an over-reliance on cognitivist approaches that focus on the acquisition, processing, and storing of knowledge. In contrast, mentor teachers (MTs) shape the learning of student teachers (STs) in schools as part of work-integrated learning (WIL), which is also referred to as school-based learning (SBL). In addition, MTs offer a variety of ways for STs to access knowledge independently (Kern & Fritz, 2017). This approach is in line with constructivist approaches which are often absent in bureaucratic styles of management. Bureaucratic management styles impact negatively on teachers' job performance because of their limited participation in programme development, meetings, and decision-making (Singh, 2013).

There is, therefore, a need to shift to pre-service teacher training that incorporates constructivism and the necessary emotional competencies. According to Corcoran and Tormey (2013) and Palomera, Fernández-Berrocal and Brackett (2008), multifaceted contemporary training should focus on developing future teachers' basic personal and interpersonal competencies. This proposed holistic approach to training confirms Goleman's (2004) reference to the inextricable connectedness between two different types of intelligence required by individuals to function in life. This capacity to function in life is determined not just by rational intelligence (IQ), but also by emotional intelligence (EI), where the harmonising of head and heart link knowledge and emotions. The school WIL environment is dependent upon skills associated with both IQ and EI, irrespective of the context in which teaching and learning occurs. In this article, the lead researcher (CCM) suggests shifting the paradigm in teacher education to incorporate the competency of and collegiality in the development of educators as a human resource. The school must be a microcosm of the society. When experienced teachers and STs are perceived as collegial by the learners in their classrooms, they become role models for their learners to emulate. This will have long-term benefits for the South African economy when these learners enter the workforce and replicate collegiality in the workplace. According to Robinson (2015), STs face four problems during WIL in South Africa (SA). Firstly, there is inadequate mentoring in some instances and STs sometimes observe the unacceptable behaviour of some teachers who should not serve as role models. Secondly, there are diverse socioeconomic and educational contexts where STs in affluent schools are advantaged regarding human and other resources when compared with STs in disadvantaged schools, where there are shortages of teachers and teaching resources. Thirdly, there are variations in terms of the quality of the mentoring. Finally, there is inadequate communication from higher education institutions (HEIs) regarding STs' and MTs' responsibilities. These institutions should invite MTs and STs to meetings to inform them about the expectations during mentoring. The HEIs should also provide the MTs and STs with manuals to reinforce the criteria for effective mentoring. These problems suggest the need for guidelines to balance the EI and IQ competencies to promote collegial mentoring, which is a process by which teachers support one another to improve the quality of teaching and learning during WIL.

Additional problems associated with WIL are evident in the findings of Heeralal and Bayaga (2011) who report on the unhelpful behaviour of MTs, MTs' inflexibility as well as the inflexibility of the HEIs which can lead to problematic interpersonal relationships between STs and MTs. The problems, according to Heeralal and Bayaga (2011) and Robinson (2015), indicate a need to promote greater collegiality during WIL. MTs need to shift their paradigms from hierarchical bureaucratic to multi-faceted collegial models of mentoring. The lead researcher (CCM) argues that a shift in mentorship from hierarchical bureaucratic models to multi-faceted collegial models invites STs to take joint ownership of their WIL. An additional benefit of a multi-faceted collegial approach to leadership is the contribution to the continuous professional development (CPD) of STs and MTs. A bureaucratic approach could compel STs to accept the inflexible perspectives that some MTs may have about CPD.

In the study reported on here, the lead researcher (CCM) adopted a multi-faceted approach to leadership, by incorporating ethical, instructional, social constructivist, transformational and distributive leadership as important components of collegial leadership. She begins by introducing two concepts central to this study, namely mentoring and WIL and thereafter she discusses the many facets of collegial leadership.

Background

The context of this study was post-apartheid SA. Despite the political changes in SA, the sharp contrasts between well-resourced schools and under-resourced schools highlight the challenges in terms of the calibre of school WIL contexts and of the mentoring available to STs. Approximately 80% of all South African schools are classified as dysfunctional (Wolhuter, 2016). This indicates the extent of the disparities in the educational contexts in which STs must acquire WIL (Robinson, 2015).

The Faculty of Education referred to offers the undergraduate Bachelor of Education degree and the Post-Graduate Certificate in Education (PGCE). The WIL curriculum at this faculty is captured in a manual with guidelines clarifying expectations of MTs and of the host schools. In this document there is also reference to the promotion of attributes associated with collegiality. The WIL manual suggests that the WIL programme starts with an induction, which Sweeny (2008) defines as a process of welcoming STs and preparing them to fulfil their professional roles. This preparation can be successfully accomplished by implementing a mixture of components. One of these components is staff development designed for STs and another is peer support.

Mentoring collegially

According to Shapley and Bush (2000), mentoring entails three critical assumptions. Firstly, mentoring provides the induction support to assist new teachers to adjust to the demands of teaching and to be socialised in the school setting. Secondly, mentoring supports the pedagogical development of new teachers, and, thirdly, mentoring is perceived as encouraging the retention of teachers. Thus, the observation of experienced teachers and feedback from MTs guide STs' growth (Sweeny, 2008). Thomas and Smith (2009) add that mentoring is useful when a MT is a role model for a ST. However, there may be a disadvantage; it can produce clones of the MT and, in some models of mentoring, can disempower the ST. Arends and Phurutse (2009) observe that some aspects of teaching are best learned on the job during the induction period and they note reservations about teacher training programmes in HEIs which they view as too theoretical and too far removed from the experiences of classroom life.

A fallacy exists that experienced teachers automatically make good MTs and role models because of years of successful experience (Portner, 2008). In this case, there is a possibility of the perpetuation of bureaucratic approaches to mentoring at the expense of more collegial approaches. MTs are indispensable to the STs' development during WIL, but there are very few instances of a shift from bureaucratic mentoring approaches to collegial mentoring approaches (Mukeredzi, Mthiyane & Bertram, 2015). The lead researcher (CCM) proposes collegial mentoring as the ideal leadership style for MTs, and, therefore, she discusses the various types of leadership needed in the WIL context.

Leadership approaches for mentoring during work-integrated learning

WIL is equated with workplace learning and is defined as "[a] practicum, which may vary from a few weeks to a few years of practical experience at a site of vocational/occupational/professional practice" (Department of Higher Education and Training [DHET], Republic of South Africa [RSA], 2011b:19). There is an inextricable link between WIL and mentoring, because STs are subjected to the collegial leadership expected from experienced school mentors as part of the STs' CPD. The integration of new teachers into the school is a critical aspect of leadership development and sustainability (Lambert, 2003). To ensure that STs are exposed to a cross-pollination of expertise from all teachers in the schools it is incumbent upon MTs to adopt an ethical approach to mentoring which entails nurturing STs to promote the STs' adjustment to the diversity within the classroom,

the school, the community, and the society at large.

Ethical leadership

An ethic for educational institutions, their leaders, MTs and STs that teach all participants (including children) how to flourish in liberal, democratic societies (Strike, 2007) is critical. This ethic is particularly important in the South African context, where political changes after 1994 brought about democratic transformation. The challenge faced by South African MTs is highlighted by Booyse, Le Roux, Seroto and Wolhuter (2011). They state that despite reform, education in SA remains unequal along racial lines where historically White schools compare with the best globally, while Black schools are grossly inferior.

The three kinds of ethics that impact on educational leadership are from a justice, critique, and care perspective (Shapiro & Stefkovich, 2011). These authors consider an additional ethic: the ethic of profession. The ethic of justice refers to the rule of law and concepts of fairness, equity, and justice and it considers whether there is a law, right, or policy that relates to a case. Interrogating the ethic of justice with STs is twofold. Firstly, it presents MTs with opportunities to commit to challenging the social, cultural and economic inequalities in terms of privilege and resources among STs. Mentor teachers should focus on the most marginalised STs. They should provide these STs with equality of opportunity to succeed during WIL so that their exclusion as the vulnerable can be eliminated. Secondly, in the absence of a law, right, or policy, collaborative discussions among stakeholders in education can lead to the identification of strategies to initiate the creation of appropriate laws, rights, or policies. Mentor teachers should be committed to initiatives that will promote the inclusion of STs to engage in initiating policies relating to, for example respect for educators, irrespective of their sexual orientations. Such initiatives will encourage MTs and STs to be change agents, which is aligned to the constructivist paradigm which undergirds this study.

The ethic of critique expects that leaders challenge inequalities in society and in the schools, which relate to class, race, gender, and other areas of difference (Shapiro & Stefkovich, 2011). The ethic of critique would make it incumbent upon MTs to deal empathically and respectfully with STs in terms of their class, racial, or gender diversity during the mentoring process.

The focus of the ethic of care suggests displays of empathy, compassion, and consideration of others in decision-making (Shapiro & Stefkovich, 2011). The German word for empathy, *Einfühlung*, meaning in-feeling, was first used by the psychologist Robert Vischer. *Einfühlung* places human feelings into inanimate things, plants, animals, or other humans in a specific way (Depew, 2005). According to McClain, Ylimaki and Ford (2010), the wisdom of recognising our interdependence deepens and expands our capacity for openness, empathy and loving kindness. Morris (2009) considers empathy to be an important ingredient that needs to be in place for relationships, once formed within communities, to succeed. According to Morris, we cannot expect to be attuned to promoting the well-being of others without our capacity to feel and predict their emotional states. It is in an atmosphere of interdependence that both MTs and STs will feel comfortable to reveal their vulnerabilities during the sharing of content knowledge (CK) and pedagogical content knowledge (PCK) when implementing instructional strategies.

Instructional leadership

The increasing emphasis on managing teaching and learning as the core activities of educational institutions has led to instructional leadership being emphasised (Bush, 2011). Collay (2011) asserts that the expertise to lead instruction lies in the teacher ranks even though research on educational reform focuses on the principal as an instructional leader. An instructional leader considers the goals of all stakeholders via the curriculum and focuses on coordinating the curriculum and monitoring learner progress (Marishane, Botha & Du Plessis, 2011). Investigations about what teachers need to know about their learners' conceptions and misconceptions of subject matter have intensified (Ball, Thames & Phelps, 2008). Hallman-Thrasher, Connor and Sturgill (2019) state that CK is different in programmes for individuals who have major subjects in undergraduate degrees where the CK experience is not identical to that of prospective teachers. Pedagogical content knowledge (PCK) is how teachers teach their subject based on prior knowledge about their learners and the curriculum as well as their understanding about good teaching within a specific context (Deng, 2018:156–157; Hallman-Thrasher et al., 2019:264; Rollnick, Bennet, Rhemtula, Dharsey & Ndlovu, 2008:1367).

A collaborative and comparative project between SA and New Zealand (NZ), investigated the PCK of secondary school technology teachers and found that there was a lack of a clear understanding by teachers from both countries of the structure or the demands of the curriculum (Williams & Gumbo, 2012). A consistency of assessment practice was lacking in both NZ and SA. In SA the focus was on the use of tests and examinations, whereas the NZ teachers tended to assess products, such as projects or portfolios (Williams & Gumbo, 2012). The lack of consistency in terms of assessment in both NZ and SA highlights the need for mentoring.

In a study on mathematics teachers' PCK in statistics teaching, Ijeh (2013) found that teachers were focused on the rules instead of ensuring the learners' understanding of what was being taught. The teachers' reliance on textbooks and the Curriculum and Assessment Policy Statement (CAPS) documents in Ijeh's study, reiterates this dependence on texts. Many South African mathematics teachers are incapable of answering the questions posed to their learners and there are underperforming teachers who do not grasp the expectations of the curriculum (Spaull, 2013).

Rollnick et al. (2008) conducted a case study in two township high schools to explore the influence of subject-matter content on the teaching of chemistry. They reported that the teachers' lack of understanding of the content influenced their PCK. Furthermore, the teachers believed in teaching for assessment, a severe limitation, and who as MTs could have the negative effect of replicating this limitation in STs. Similarly, physical science teachers had difficulty understanding concepts related to the new topics which in turn had a negative effect on their PCK (Ramnarain & Fortus, 2013). To overcome their shortcomings relating to CK and PCK a possible solution for experienced teachers would be a social constructivist perspective to teaching and learning.

Social constructivist leadership

Social constructivism or Vygotskian constructivism teaches that all knowledge develops because of social interaction and language use, and is, therefore, a shared rather than an individual experience (Lynch, 2012). According to Vygotsky, language initially develops from social interactions and later language ability becomes internalised as thought. Thought is then the result of language (McLeod, 2007). From the perspective of mentoring, language proficiency is crucial in the language of learning and teaching (LoLT). Professional conversations are important for teacher and staff development (Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner & Szabo, 2002). Professional dialogue demonstrates that teacher learning is valued and regarded as integral to improve teaching, learning, classrooms, and the school (Lambert, 2009). Baker, Costa and Shalit (2009:120) define dialogue as a verbal interchange and a sharing of ideas, especially when the exchange is open and frank. They define the term "dialectic" as the art and practice of examining opinions or ideas logically through talk. The goal of dialectical discourse is to win, convince, or persuade. Dialectical discourse has the added advantage of honing the critical thinking skills of STs.

The Constitution of the Republic of South Africa, 1996 (and the earlier Interim Constitution of 1993) recognises 11 official languages (Busch, 2010). In South African schools the mother tongue is the LoLT for the first four grades of schooling and thereafter it is either English or Afrikaans. English is the mother tongue of only 8% of the South African population and Afrikaans is the mother tongue of only 13% of the population. A challenge in the classroom is the differing ability levels within these two LoLTs which play a significant role, because learners often learn in a second or third language (Naidoo, 2017).

The dominant status of English in the school system is evident in the correspondence from the Department of Education (DoE), the drafting of lesson plans, the writing of reports, the discourse of timetables, inventories, and school rules (Busch, 2010). In their study, Makoe and McKinney (2009) note that, despite English being a second, third and even fourth language for a majority in a class, the dominance of English is ensured by the teacher's use, and the school. *The Minimum Requirements for Teacher Education Qualifications* (MRTEQ), states that fundamental learning in the South African context refers to being able to converse competently in a second official language and, specifically, in a South African indigenous language (DHET, RSA, 2011a:8). The development of knowledge via social interaction and language usage as propagated by Vygotsky is the key to transformational leadership because teachers must interact and talk about the vision for the school.

Transformational leadership

One of the first foci of principals in leadership is to create and share their vision for the school, which influences the principals' and staff's actions. As transformational leaders they should unify their colleagues in terms of a clear, collective vision, and a commonly understood and accepted mission and purpose (Day, Sammons, Leithwood, Hopkins, Gu, Brown & Ahtaridou, 2011). Laar (2014:12) describes vision as "a profoundly considered, wisely informed and inspirational view of the purpose and mission of a school in relation to the education of its children." According to Laar (2014), transformational leadership ensures that the interests of learners are catered for. In their roles as collegial leaders, MTs therefore need to clarify the school's vision for the STs, who in turn need to embody it for the learners in their classrooms. Furthermore, Laar (2014) states that transformational leadership encourages intellectual and professional debate, constructive criticism and evaluation. In addition, it creates a climate of reflection, celebrates individual and collective milestones and is not discouraged by setbacks. To ensure that STs remain focused despite setbacks, MTs should encourage them to reflect on their practice and ensure their wellness so that STs develop resilience in the WIL environment. In

collegial mentoring relationships, MTs need to encourage STs' contributions and allow STs to critique the mentoring process. Transformational leaders inspire their colleagues to take risks for organisational improvement (Marishane et al., 2011). In this regard, MTs have a role to fulfil as change agents for STs. Teachers have a strong desire to participate in decision-making and thereby promote a collaborative culture in schools (Ho, 2010). Teachers, irrespective of the stages of their teaching careers must, according to Naicker (2017), shift their mindsets by being receptive to teacher leadership.

Distributive leadership

Distributed leadership recognises, firstly, that many leaders are needed in schools as peer leadership among teachers, learning assistants, and support staff, if schools are to become powerful learning organisations (Davies, 2009). Secondly, distributed leadership results in the development of many learning-centred leaders. This approach will ensure that everyone has access to facilitative leaders for the articulation and analysis of their professional experience, and to act on it to improve the quality of teaching and learning (Davies, 2009). Thirdly, Davies (2009) highlights that distributed forms of leadership require senior leaders to let go, which is not about abdicating responsibility, but rather about principals and the senior management becoming developers of learning-centred leaders. In this way, senior school management can contribute to the CPD of their colleagues and become learning-centred leaders in terms of helping less experienced colleagues learn to lead in this way (Davies, 2009). The challenge in schools that are dependent on bureaucratic leadership models is, therefore, to shift the paradigms of school principals and senior management. Integrated leadership consists of shared instructional, transformative and distributed leadership. Hendricks (2012), in a study at six schools, found that there was a definite relationship between integrated leadership in schools and the learners' performance in the Annual National Assessments. When integrated leadership was used by educators in his study, the results of the learners were satisfactory to commendable, whereas, when the use of integrated leadership was erratic in schools, learners' results were unsatisfactory. There is, therefore, an indication of the benefits associated with distributed leadership, because it bodes well for learners and teachers.

Method

Demands on what STs must know and do have increased owing to factors, such as increasingly diverse student populations and pressures of accountability systems and making first-year induction programmes critical for the success of STs.

Since quantitative research is mostly associated with the positivist tradition (Jupp, 2006), my philosophy is positivist. The aim of this study was to determine the STs' perceptions of their MTs' competencies to develop their WIL skills and knowledge in terms of the MTs' collegial competencies. To address the aim of this study, the objectives were to investigate whether
1) the MTs collaborated with their colleagues;
2) the MTs guided the STs with curriculum and classroom management;
3) the MTs allowed the STs to engage with other teachers to verify expertise;
4) the MTs allowed the STs to review assessment data; and
5) the MTs guided the STs in respect of their school WIL.

The following research questions were guided by the research objectives:
1) What are the STs' perceptions of the level of collaboration between MTs and their colleagues?
2) What are the STs' perceptions of their MTs regarding their level of guidance with curriculum and classroom management?
3) What are the STs' perceptions of their MTs regarding the level of the STs' engagement with other teachers to verify expertise?
4) What are the STs' perceptions of their MTs' levels of allowance of the STs to review assessment data?
5) What are the STs' perceptions of their MTs' levels of guidance in respect of their school WIL?

The null hypotheses relating to the STs' perceptions of their MTs' interpersonal collegial leadership were as follows:
1) The level of collaboration between the MTs and their colleagues is regarded by the STs as very low, low or average.
2) The level of the MTs' guidance in terms of curriculum and classroom management is regarded by the STs as very low, low or average.
3) The level of the MTs' approval of STs to engage with other teachers to verify expertise is regarded by the STs as very low, low or average.
4) The levels of the MTs' approval of the STs to review assessment data are regarded by the STs as very low, low or average.
5) The levels of the MTs' guidance of the STs in respect of their school WIL are regarded by the STs as very low, low or average.

Single sample t-tests were used to test hypotheses 1 through 5. A factor mean of four was the upper limit of the "average" category. Thus, the single sample t-tests tested the null hypothesis of each factor mean being four or less versus the alternative hypothesis that the respective factor mean was greater than four. If the null hypothesis was rejected, this indicated that, on average, the STs responded highly or very highly (positively) to that factor. Cohen's d was used to indicate the practical significance of a result.

The target population comprised 241 STs in the final year of their Initial Teacher Education qualifications at a HEI in the Eastern Cape

province in SA. The respondents were Bachelor of Education and PGCE student teachers.

The lead researcher (CCM) used purposive sampling to select 214 STs who were considered most likely to provide the information appropriate to the research study (Ruel, Wagner & Gillespie, 2016). The use of a questionnaire ensured that she had no direct contact with the respondents, thereby ensuring objectivity and the STs' anonymity during the collection of the data.

Data collection was via a structured questionnaire which included 23 items related to the factor "collegial leadership." The review of the literature on MTs' interpersonal collegial leadership, my examination of a number of previous survey instruments, and submission of the questionnaire for analysis by a statistician, ensured that content validity was achieved (Andres, 2012). Permission was granted to adapt and use the Illinois 5Essentials Survey Teacher Questions from which the lead researcher (CCM) selected items that were relevant to her study (University of Chicago, Consortium on School Research, 2012–2013). The 23 items in the questionnaire were also informed by the literature review as reported by her. The items for the factor, "interpersonal collegial leadership" were divided into the five subscales, *collaboration with colleagues*, *curriculum and classroom management*, *verification of expertise*, *assessment* and *WIL*. A 6-point Likert scale was used with responses ranging from *Slightly disagree (1), Disagree (2), Strongly disagree (3), Slightly agree (4), and Agree (5)* to *Strongly agree (6)*. Two-hundred and forty-one STs who were Foundation Phase (FP), Intermediate Phase (IP), Further Education and Training (FET) and Postgraduate Certificate in Education (PGCE) students completed the questionnaire. The FP is the first phase of formal schooling in SA. It involves teaching from Grade R (5–6 years of age) to Grade 3 (approximately 9 years of age). The IP involves teaching from Grade 4 to 6. Further Education and Training includes Grades 10 to 12. In this study the FET and PGCE students were involved in the teaching of Grades 10 to 12. Construct validity determines whether the analysis follows the theoretical structure that it is supposed to (Dane, 2011). Factor analysis was used to allow me to look at the structure of items and internal consistency reliability to allow me to see whether all items measured the same factor (Muijs, 2011).

In this study, levels (very low, low, average, high or very high) were used to analyse the STs'

responses to the items in the questionnaire on interpersonal collegial leadership. The scale of 1 to 6 on the questionnaire was divided into 5 equal-length intervals and then given labels.

The quantitative data collected from the responses to the questionnaire were summarised. The data were then analysed numerically using software, namely, the Statistical Package for Social Sciences (SPSS), Minitab and Excel. Internal consistency for each of the scales was examined using Cronbach's alpha. No substantial increases in alpha could have been achieved by eliminating items in any of the scales. In this study the Cronbach's coefficient for the factor "interpersonal collegial leadership" was 0.91, which is in line with the guideline of over 0.7 for internal consistency (Jupp, 2006). The overall Cronbach's alpha for this means that the 23 items were reliable to determine the level of the MTs' interpersonal collegial leadership skills. To explore the factorial structure of interpersonal collegial leadership, all 23 items of the instrument were subjected to an exploratory factor using principal axes factor analysis followed by oblique direct oblimin rotation which allows for the factors to be correlated. The sampling adequacy for the analysis was verified using the Kaiser-Meyer-Olkin measure and Bartlett's test of sphericity indicated that correlation structure was adequate for factor analyses.

The limitations of this study were, firstly, that the perceptions were only those of STs who had mentors in urban and semi-urban schools. Secondly, the questionnaire was only in English and did not cater for the STs who had Afrikaans or Xhosa as their mother tongue. Thirdly, this case study does not lay claim to external validity, as the conclusions may not be hypothetically generalised to other MTs in initial teacher education (Andres, 2012). The conclusions of this study may, however, be generalised in circumstances where the schools have similar characteristics.

Approval to proceed with the research was obtained from The Research Ethics Postgraduate Committee of the University (H17-EDU-ERE-007).

Results and Discussion
The results of the single sample *t*-tests of hypotheses 1 through 5, show that in instances where the STs responded highly or very highly (positively) to the factor, the null hypothesis was rejected. Cohen's *d* indicates the practical significance of the result.

Table 1 Single sample *t*-test for hypothesis 1 − Collaboration with colleagues

N	M	SD	t	df	p	Cohen's d	Practical significance
241.00	4.43	0.97	6.98	240.00	< 0.001	0.45	Small

There is sufficient sample evidence (cf. Table 1) to conclude that there was a high or very high level of collaboration between the MTs and the STs ($p < 0.001$), although this result was of small practical significance (Cohen's $d = 0, 45$).

The effect size measure indicated that the magnitude of the effect was of medium practical significance. This means that the null hypothesis was rejected on statistical grounds, and the level of positiveness in terms of the factor was medium.

Table 2 Descriptive statistics of items (Questionnaire)

	N Valid	Mean/Interpretation of mean	*Mdn*	*SD*	Minimum (Min)	Maximum (Max)
Collaboration with colleagues. Cronbach's Alpha = 0.63						
My mentor talks about instruction in the staff room, meetings, etc.	241.00	3.72/Average	4.00	1.61	1.00	6.00
My mentor shares and discusses student teachers' work with other teachers.	241.00	3.68/Average	4.00	1.55	1.00	6.00
My mentor invites me into her/his classroom to observe, give feedback, etc.	241.00	5.07/Very high	5.00	1.26	1.00	6.00
A conscious effort is made by my mentor to make me feel welcome in the school.	241.00	5.27/Very high	6.00	1.14	1.00	6.00

The average means in Table 2 point to the STs' perceptions of the MTs that suggest that they needed to be more focused on interpersonal collegiality, while the very high means indicate that the MTs made conscious efforts to set the STs at ease in the WIL school environment.

Table 3 Single sample *t*-test for hypothesis 2 – Curriculum and classroom management

N	*M*	*SD*	*t*	*df*	*p*	Cohen's *d*	Practical significance
241.00	4.44	1.07	6.40	240.00	< 0.001	.41	Small

There is sufficient sample evidence (see Table 3) to conclude that there was a high or very high level of curriculum and classroom management in terms of the mentoring role ($p < 0.001$), although this result was of small practical significance (Cohen's $d = 0.41$). Cohen's d indicates that the magnitude of the effect, i.e. how far the mean was above the upper limit of the average category, was of small practical significance. This result means that, although the null hypothesis was rejected on statistical grounds, the level of positiveness in terms of this factor was small.

Table 4 Descriptive statistics of items (Questionnaire)

	N Valid	Mean/Interpretation of mean	*Mdn*	*SD*	Min	Max
Curriculum and classroom management. Cronbach's Alpha = 0.81.						
I often have conversations with my mentor about:						
What helps learners learn best.	241.00	4.99/High	5.00	1.15	1.00	6.00
Development of the CAPS curriculum.	241.00	3.94/Average	4.00	1.47	1.00	6.00
The goals of the school.	241.00	3.96/Average	4.00	1.46	1.00	6.00
Managing classroom behaviour.	241.00	4.87/High	5.00	1.26	1.00	6.00

The average means in Table 4 suggest that the MTs needed to improve on discussions relating to the CAPS documents – also found by Williams and Gumbo (2012) who report an over-dependence on text books coupled with a lack of clear understanding of the structure and demands of the curriculum. The goals of the school needed to be emphasised, because a collective vision, mission and purpose will unify colleagues (Day et al., 2011).

Table 5 Single sample *t*-test for hypothesis 3 – Verification of expertise

N	M	SD	t	df	p	Cohen's d	Practical significance
241.00	4.12	1.26	1.51	240.00	0.13	N/A	N/A

There is insufficient evidence (*p* = 0.13) (cf. Table 5) to conclude that there was a high or very high level of ST engagement with other teachers regarding verification of expertise. This result means that the level of STs' engagement with other teachers on instructional matters was generally regarded as very low, low or average. Cohen's *d* indicates that the magnitude of the effect, i.e. how far the mean was above the upper limit of the average category, was of small practical significance. This means that the null hypothesis could not be rejected on statistical grounds, as the *p*-value was not significant.

Table 6 Descriptive statistics of items (Questionnaire)

	N Valid	Mean/Interpretation of mean	Mdn	SD	Min	Max
Verification of expertise. Cronbach's Alpha = 0.86						
My mentor allows me to:						
Observe another teacher's classroom to offer feedback.	241.00	4.46/High	5.00	1.54	1.00	6.00
Observe another teacher's classroom to get ideas for my instruction.	241.00	4.50/High	5.00	1.49	1.00	6.00
Go over learners' assessment data with other teachers to make instructional decisions.	241.00	3.82/Average	4.00	1.55	1.00	6.00
Work with other teachers to develop materials or activities for particular classes.	241.00	3.96/Average	5.00	1.66	1.00	6.00
Work on instructional strategies with other teachers.	241.00	3.86/Average	4.00	1.58	1.00	6.00

The average means in Table 6 emphasise the need for MTs to work collaboratively with other colleagues on assessment, the development of materials and instructional strategies. Where bureaucratic approaches still dominate in some schools (Mukeredzi et al., 2015) collaborative engagement in teaching and learning will be negatively impacted. However, the high means affirm the MTs' collaborative roles to enhance ST's WIL experiences.

Table 7 Single sample *t*-test for hypothesis 4 – Assessment

N	M	SD	t	df	p	Cohen's d	Practical significance
241.00	4.17	1.20	2.22	240.00	0.03	0.14	Small

There is sufficient sample evidence (cf. Table 7, to conclude that there was a high or very high level of mentor allowance for the STs to review assessment data (*p* = 0. 03), although this result was of small practical significance (Cohen's *d* = 0.14).

Table 8 Descriptive statistics of items (Questionnaire)

	N Valid	Mean/Interpretation of mean	Mdn	SD	Min	Max
Assessment. Cronbach's Alpha = 0.78						
My mentor allows me to review assessment data (e.g. assignments, tests examinations, etc.)						
Independently.	241.00	4.53/High	5.00	1.57	1.00	6.00
With teachers in my grade level.	241.00	3.85/Average	4.00	1.63	1.00	6.00
With teachers across grades.	241.00	3.43/Average	4.00	1.64	1.00	6.00
With her/him.	241.00	4.88/High	5.00	1.35	1.00	6.00

The average means in Table 8 are indicative of the STs' perceptions that their MTs needed to present them with opportunities to review assessment data within and across grades. Williams and Gumbo (2012) found the consistency of assessment practice was lacking in technology education in SA. Furthermore, Rollnick et al. (2008) highlight the limitations of science teachers who focused on teaching for assessment. The inconsistency of assessment practice in technology and the science teachers' focus on teaching for assessment raises concerns about the quality of the assessment data that STs may be allowed to review.

Table 9 Single sample *t*-test for hypothesis 5 – Work-integrated learning

N	M	SD	t	df	p	Cohen's d	Practical significance
241.00	4.27	1.26	3.28	240.00	< 0.001	0.21	Small

There is sufficient sample evidence to conclude that there was a high or very high level of the MTs' WIL skills in their interpersonal collegial leadership roles with the STs ($p < 0.001$) (cf. Table 9), although this result was of small practical significance (Cohen's $d = 0.21$).

Table 10 Descriptive statistics of items (Questionnaire)

	N Valid	Mean/Interpretation of mean	*Mdn*	*SD*	Min	Max
Work-integrated Learning. Cronbach's Alpha = 0.90. *My mentor:*						
Makes clear to me his/her expectations for meeting instructional goals.	241.00	4.49/High	5.00	1.45	1.00	6.00
Communicates a clear vision for the school.	241.00	4.08/High	4.00	1.48	1.00	6.00
Sets high standards for my WIL/SBL.	241.00	4.58/High	5.00	1.50	1.00	6.00
Encourages me to discuss my progress relating to my professional development.	241.00	4.55/High	5.00	1.56	1.00	6.00
Carefully tracks my WIL/SBL progress.	241.00	3.89/Average	4.00	1.65	1.00	6.00
Participates in instructional planning with me.	241.00	4.02/High	4.00	1.65	1.00	6.00

The average means in Table 10 suggest that STs were of the opinion that their progress in terms of their WIL needed to be more closely monitored by their mentors. The high means are indicative of the MTs' proficiency in communication. This result is in contrast with that of a study by Bertram, Christiansen and Mukeredzi (2015), where FP teachers were found to have difficulties understanding questions posed to them. Problems with communication have the potential to derail "teacher talk" in the constructivist environment. Therefore, it is important for HEIs to take cognisance of the challenges that non-mother tongue speakers of English experience in their preparation to become teachers.

Conclusion

Ideally, mentors should serve and co-exist in symbiotic relationships with their mentees to create equilibrium between cognition and emotions. More research needs to be done to shift the current focus of knowledge sharing by MTs to incorporating emotional support, which entails greater collegiality between MTs and STs. In practice, not all MTs are able to lead collegially. Interpersonal collegial leadership must be conceptualised as multi-dimensional and relational to share expertise with colleagues. Workshops and short courses at HEIs can guide MTs to shift their paradigms and embrace collegial leadership. To reinforce the content of the workshops, HEIs can provide all teachers at the host schools with manuals that highlight the attributes associated with collegial mentoring. The high level of collaboration that existed between the MTs and STs in this study indicates that the mentoring experience for the STs was generally positive because of the collegiality.

The guidance from the MTs with managing the curriculum and the classroom bodes well for STs to cope with CK in the curriculum. However, the findings in this study suggest that MTs need to improve regarding discussions with STs relating to the CAPS documents. Furthermore, the support that the STs received from the MTs with classroom

management will assist the STs with the day-to-day demands of managing their classrooms. Since the engagement of STs with other teachers on instructional matters was regarded as very low or low, the MTs need to create opportunities for the STs to be exposed to the expertise of a variety of teachers in the school. By doing so, MTs will ensure that the STs have a pool of teaching and learning resources for their CPD. The focus in this study was on the perceptions of STs in urban settings. Research on the perceptions of STs in rural contexts may provide findings that differ markedly from the findings in this study. Finally, research on the perceptions of MTs about STs from different racial and linguistic backgrounds could provide perspectives on the challenges in such mentoring contexts.

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Authors' Contributions
This article is the culmination of a successfully completed doctoral study with the lead author (researcher) as the student and the co-author as the supervisor. The lead author wrote the manuscript based on the research of her PhD study. The co-author's contributions included the literature review, research design, and the data analysis for this study.

Notes
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