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The social and emotional dynamics of teachers' peer relationships

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Introduction: Teachers' relationships with colleagues are a crucial aspect of professional activity in schools but can often be overlooked as a by-product of teachers' working lives. Extant literature indicates that research on these relationships and the role they play in teachers' professional lives, wellbeing, and retention is a developing field. The purpose of this study was to examine variations in teachers' peer relationships to develop a theory to explain this phenomenon.
Methods: Using a critical realist grounded theory approach, and adopting an equal status, sequential, mixed-method design, the study combined a focus on individual experiences, alongside an exploration of the accumulative, contextual issues relating to the role of collegial relationships for primary and secondary schoolteachers in England. This strategy facilitated the collection of statistical data from 334 teachers, as well as the richness of qualitative data via critical event narratives (N = 10) to identify participants' perspectives on, and experiences of, professional relationships.
Results: These data were analysed, compared, and integrated, revealing four key components of teachers' peer relationships: Social Contracts, Quality of Professional Relationships, Peer Interaction, and Culture and Support. Further, these components were clustered into two groups, suggestive of interrelated aspects of a broader framework. A grounded theory, the Relational Dynamics of Mattering (RDM) emerged, proposing how the concept of mattering is central to the development of positive peer relationships.
Discussion: These findings provide evidence of the complex structure of teacher peer relationships, contributing to the broader understanding of how collegiality functions within schools. Results suggest that enhancing the quality of professional relationships could potentially lead to improved school cohesion, offering insights for policy and practice.

KEYWORDS
teacher peer relationships, collegiality, critical realist grounded theory, mattering, peer interaction, social contracts

1 Introduction

It has long been accepted that classroom relationships have an impact on the way teachers view aspects of their practice, their identity, and feelings of self-efficacy and agency (Looker and Kington, 2020; Uitto et al., 2016). Yet, in the UK, professional relationships between colleagues are often overlooked as a by-product of teachers' working lives. This pattern is not reflected globally, where elements of professional collaboration can be shaped by national and organisational contexts. For example, in

Nordic countries, collaboration is formally embedded within teachers' professional roles and institutional structures (Roos, 2025) meaning professional relationships are fostered through organised developmental activities. In contrast, within the UK context, relationships between peers are more often experienced as informal and variable, shaped by school culture, leadership, and workload conditions (Coldwell, 2022; Worth and Van den Brande, 2020). This study is situated within the English school system, where collaboration is less formally embedded than its Nordic counterparts. In addition, the variety and quality of teachers' professional relationships have been shown to be antecedent to teacher commitment (Johnson, Berg and Donaldson, 2005; Kelchtermans, 2006), which has been associated with the emotional and relational dimensions of teaching (Jo, 2014). In turn, teachers' positive involvement in the social aspects of school life, alongside trust in school leaders, is key to job satisfaction and the prevention of teacher burnout (Kim and Asbury, 2020; Van Maele and Van Houtte, 2015).

Collegiality can be understood as being comprised of two components; the first related to the collaborative aspect of teachers' working lives, where individuals work together through either formalised processes or informal cooperative opportunities, and the second referring to the supportive relationships between teachers, which are central to fostering a positive school environment, enhancing educational outcomes and improving teacher retention (OECD, 2025). Despite the growing body of work in this field, much has prioritised the association of collegiality with teacher collaboration (e.g., Kolleck et al., 2021). This has arguably resulted in the peer relationships dimension of collegiality remaining comparatively under-researched and inconsistently defined (Aldridge and Fraser, 2016; Vangrieken et al., 2015). Much of the existing literature focuses on the structural and functional aspects of collaboration, often overlooking the social and emotional dimensions through which professional relationships are experienced (Collie, 2021; Hargreaves, 2001; Zembylas and Barker, 2007). As a result, there is limited understanding of how the processes and dynamics of peer relationships shape teachers' sense of belonging, professional identity, and decisions to remain in the teaching profession (Collie, 2021; Skaalvik and Skaalvik, 2018; 2021a, 2021b). The current study addresses this gap by examining the underlying mechanisms that shape teachers' peer relationships, with particular attention to their social and emotional dimensions.

For the purposes of this study, collaboration is understood as structured, task-oriented joint activities, involving teachers working together toward shared professional goals, such as co-planning, co-teaching, or engaging in professional learning (Richter et al., 2022; Vangrieken et al., 2015). For example, Vangrieken et al.'s systematic review framed collaboration as a "joint interaction in the group in all activities that are needed to perform a shared task" (p. 23). Peer relationships are understood as the social, professional, and emotional connections between colleagues, shaped by trust, reciprocity, support and shared expectations through which teachers experience connection and belonging (Bryk and Schneider, 2004; Farangi et al., 2026; Kelchtermans, 2006). Collegiality encompasses both collaboration and peer relationships, referring to a broader quality of interactions between teachers, which are socially constructed and contextually situated (Kelchtermans, 2006; Kelchtermans and Ballet, 2002; Little, 1990). Collegiality, therefore, comprises both the social and professional relationships between colleagues, and the formal and informal opportunities through which teachers interact and collaborate. Collegiality can refer to the development of relationships during structured joint activities but is not restricted to only these occasions. In other words, whilst collaboration describes what teachers do together, collegiality refers to how relationships are experienced within and beyond joint activities. Thus, collaborative activities can occur in the absence of positive peer relationships, whereas a positive sense of collegiality can arise through formal collaboration but also includes the presence of informal, social, and emotional interactions. This distinction is important, as it has been shown that collaborative practices alone do not guarantee meaningful professional relationships or positive outcomes (Datnow, 2018; Vangrieken et al., 2015).

The research took a critical realist grounded theory (CRGT) (Looker and Kington, 2026) approach to explore how teachers' peer relationships develop and function and adopted an equal-status, explanatory, mixed method research design. To begin with, statistical data were collected from 334 teachers, achieving breadth of knowledge in the field. Following this qualitative data were collected using critical event narrative interviews ($N = 10$) to provide richness and depth of understanding, facilitating the identification of the *real* structures leading to participants' perspectives on, and experiences of, collegial relationships across a career. Following the literature review, the research design is shared, before the results from the quantitative data are presented. After this, the findings, derived from integration and triangulation of both types of data are presented. Based on analysis of these data, and theoretical comparisons made, the resultant grounded theory, Relational Dynamics of Mattering (RDM), is discussed as a way of understanding peer relationships, their structure, and influencing factors. The paper concludes by indicating how this theory can be used to inform future professional development, playing a crucial role in maintaining a strong teacher workforce.

2 Literature review

The approach to conducting this literature review has followed established methodological principles; that a grounded theory study should not engage with a full literature review prior to collecting and analysing data (Glaser and Strauss, 1967; Holton and Walsh, 2017; Looker, 2022; Looker and Kington, 2026). However, to identify a gap in knowledge, and to identify suitable items to be included in the survey, a "narrative" literature review (Paré et al., 2015 p. 185) was conducted. As grounded theory requires maintaining an *a posteriori* position, phasing (Looker and Kington, 2026) was used so that those working on data analysis did not have sight of the literature review until theoretical comparisons were made, limiting researcher bias. The purpose of this was to limit bias during analysis by avoiding the use of a theoretical framework so the emerging theory is grounded in data. The choice of a narrative literature review allows for the identification of knowledge on a topic, bringing "practitioners up to date" (Green, Johnson and

Adams, 2006 p. 103), without developing a theoretical framework which is then applied to the analysis process. Thus, the narrative review model has allowed for relevant literature in the field to be consulted, taking a disciplined approach (Nathaniel, 2022). This review is, therefore, organised to examine the social dynamics that shape peer relationships and their emotional dimensions, reflecting the study's focus on understanding this dimension of collegial relationships, including how they are experienced and enacted in practice (Collie, 2021; Zembylas and Barker, 2007).

2.1 Peer relationships

Teachers' working lives are significantly shaped by collegial relationships, which extend beyond collaboration to include emotional support, social connection and professional recognition (Baker-Doyle, 2010; 2011; Kelchtermans, 2006; Kelchtermans and Ballet, 2002; Zembylas and Barker, 2007), and are closely linked to shared values, identity, and a sense of belonging (Pesonen et al., 2021; Skaalvik and Skaalvik, 2019, 2021a). Much of the existing literature has understandably focused on classroom dynamics, particularly teacher-student interactions, yet the influence of peer relationships among teachers has been comparatively overlooked. Collegiality plays a crucial role in shaping school life, influencing not only teacher development (Moolenaar et al., 2012; Ronfeldt et al., 2015; Samuelsson, 2018), but also student outcomes (Goddard, Goddard and Tschannen-Moran, 2007; Wullschleger et al., 2025). It is often associated with factors that contribute to long-term teacher retention, such as teacher wellbeing (Skaalvik and Skaalvik, 2015, 2021b), motivation, and job satisfaction (Geisler et al., 2019; Skaalvik and Skaalvik, 2018). While teachers may experience collegial relationships as encouraging and supportive, they can just as often be a source of pressure, rivalry and alienation, and as Kelchtermans (2017) notes, collegial relationships can be 'double-edged swords' (p. 968).

The literature on teacher collegiality reflects ongoing tensions in how the concept is defined and understood, particularly regarding its roles, benefits and outcomes. Little (1990) described collegiality as 'conceptually amorphous and ideologically sanguine' (p. 509), warning that the term carries an uncritical optimism, risks glossing over the power imbalances and uneven experiences that shape how collegial relationships unfold in schools. Building on this critique, this study defines collegiality by the quality of relationships among the staff members in a school (Bovbjerg, 2006; Kelchtermans, 2006). Here, the term 'quality' refers to the extent to which relationships between teachers are characterised by trust, reciprocity, recognition, and support (Akinyemi et al., 2020; Bryk and Schneider, 2004; Hargreaves and O'Connor, 2018). Quality, therefore, is not determined by the frequency of interactions, but by perceived value of these (Collie, 2021; Vangrieken et al., 2015). High-quality relationships are thus defined as those which are experienced as supportive and affirming, whereas lower-quality relationships may be perceived as conflictual, distant, or undermining (Kelchtermans, 2006; Looker et al., 2023; Skaalvik and Skaalvik, 2021b). Moreover, it posits that collegiality cannot be reduced to a positive or negative force; rather, it is shaped by the entangled, everyday emotional and relational aspects of teachers' work and peer relationships, situated within their specific school context.

2.2 Social dynamics of peer relationships

While peer relationships refer to the relational qualities that underpin teacher interactions, collaboration captures the more explicit professional practices through which these relationships are enacted. Teacher collaboration usually involves purposeful joint work, such as sharing planning, co-teaching, engaging in reflective practice, or participating in professional learning communities. Research has linked these kinds of collaboration to gains in teacher development and better instructional practices (Akinyemi et al., 2020; Datnow, 2018; Farangi et al., 2026). However, Little (1990) has argued that 'much that passes for collaboration does not add up to much' (p. 508) and instead reinforces the autonomy and isolation of teachers. Similarly, this has been shown in other research, which suggests that collaboration can produce both positive and negative outcomes, depending on its structure and how it is experienced by teachers. For example, studies of professional learning communities suggest that collaboration can foster collective responsibility, shared expertise and improved instructional practice (Stoll et al., 2006; Vangrieken et al., 2015), while other research highlights that mandated or superficial collaboration may result in compliance, reinforce existing hierarchies, or increase workload without meaningful professional learning (Datnow, 2018; Hargreaves, 1994; Kelchtermans, 2006). This indicates a possible disconnect, where collaboration is promoted as a beneficial expectation of teachers' work, whilst evidence suggests that its value depends on the quality of relationships, the degree of professional autonomy, and the purposes for which collaborative practices are embedded.

Beyond the quality of collaboration, recent studies highlight the importance of context, including teachers' career phases, school power structures, and the broader instructional culture. A growing body of international research reveals that collaboration is shaped by organisational context, professional norms and career trajectories (Admiraal et al., 2021; Datnow, 2018; Fullan and Hargreaves, 2012; Vangrieken et al., 2015). For example, mandated collaboration can feel performative or burdensome, especially when stemming from leadership decisions or accountability pressures, reducing autonomy and increasing workload (Fullan and Hargreaves, 2012; Kelchtermans, 2006). This highlights the importance of distinguishing between structural collaboration, organised by school leadership, and relational collaborations, which emerge more organically and informally, and are often more meaningful to teachers. Although some of these studies are now more than a decade old, they remain influential in shaping how collaboration has been conceptualised in educational research and continue to inform more recent empirical work examining professional learning, teacher networks and organisational learning in schools (Admiraal et al., 2021; Prenger et al., 2021; Vangrieken et al., 2015). These differences suggest that teacher collaboration is not static, but shaped by personal, professional and organisational factors.

If collaboration represents the practices through which collegial relationships are enacted, then school culture is the broader ecosystem that enables or constrains those practices. It shapes how teachers interact, communicate, and emotionally engage with one another in everyday school life (Teasley, 2017). Although widely used in educational discourse, definitions are contested (Lee and Louis, 2019); some emphasise shared values (Day, 1999), behavioural expectations (Florczak, 2022), or the informal rules and rituals shaping daily interactions (Deal and Peterson, 2016). These varied understandings of school culture highlight how it shapes not only the norms of behaviour, but also the emotional tone and relational climate of a school, influencing how peer relationships are formed, sustained or strained.

School leadership plays a central role in shaping the cultural norms and emotional tone of a school. Supportive leadership has been shown to foster cultures of trust, shared responsibility and psychological safety, which in turn enable authentic collegiality (Fullan and Hargreaves, 2012). In contrast, leadership approaches characterised by top-down control or performativity pressures can create cultures of fear or 'contrived collegiality' (Hargreaves, 1994 p. 186). In this way, leadership functions not only as a structural force but also as a relational one, shaping the emotional and professional terrain in which peer relationships are enacted.

Much teacher interaction happens informally, in corridors, staffrooms or shared spaces, and is often described as more valuable than formal meetings or structured collaboration (Hallett, 2007; 2010; Mawhinney, 2008; Williams, Prestage and Bedward, 2001). The reason might be simple: these settings offer teachers space to speak candidly, decompress and connect without the pressures of agendas or expectations. Research highlights how new teachers, in particular, benefit from the emotional reassurance and everyday advice exchanged in these moments (Papatraianou and Le Cornu, 2014; Spicksley and Watkins, 2020). Staffroom conversations have been described by Mawhinney (2008) as places where teachers have a safe outlet to be honest and often use humour to release some of the emotional labour associated with their role. Still, it is worth noting that these spaces are not always inclusive. As Han (2021) and Bryk and Schneider (2004) point out, informal settings can also reflect or reinforce hidden hierarchies, leaving some teachers on the outside.

2.3 Emotional dynamics of peer relationships

In educational environments, emotion is understood as a dynamic, multi-faceted process which involves subjective feeling, cognitive appraisal, physiological arousal, and expressive behaviours in response to events perceived as personally or professionally significant (Ehlert et al., 2025; Frenzel, Daniels and Burić, 2021; Pekrun and Goetz, 2024). Frenzel, Daniels and Burić (2021) frame teacher emotions as being shaped by both classroom interactions (comprised of student behaviour and learning outcomes), and professional environments (including peer relationships, workload and wider institutional conditions). These, they argue, are intrinsically linked to teachers' goals, values, professional identity, and agency (Frenzel, Daniels and Burić, 2021). Thus, in this paper, emotions associated with peer relationships are defined as social and contextual constructs embedded within the professional environment of teaching. Stress can be understood as a construct closely related to emotion. Stress is conceptualised as a response that occurs when individuals perceive that environmental or workplace demands exceed their capacity to cope (Folkman, 1984). The OECD (2025) identifies teacher stress as part of the broad workplace environment, associated with well-being and job satisfaction. Interestingly, it emphasises the importance of professional relationships within school communities. For example, teachers who reported they can rely on colleagues also tended to report higher levels of well-being and job satisfaction, suggesting that positive peer relationships may act as a protective factor from teacher stress and support wellbeing (OECD, 2025; Wolgast and Fischer, 2017). Thus, emotion provides a broader framework for understanding the affective aspects of peer relationships, while stress refers to a specific type of response to workplace conditions which can place teachers' emotional wellbeing at risk.

Recent literature has moved beyond binary views of collegiality, highlighting its situated and emotional nature. Research on the emotional dimensions of teaching suggests that professional relationships are driven by emotional processes, where teachers interpret interactions through shared norms, expectations and professional identities (Day and Kington, 2008; Kelchtermans, 2016; Zembylas and Barker, 2007). In this sense, collegial relationships are viewed as not only purely structural or organisational arrangements but shaped through everyday emotional experiences and interpretations. Teachers' peer relationships reflect a delicate terrain of emotions where support and strain can be part of the same experience (Hargreaves, 2001). Within literature, emotions are commonly understood as socially constructed responses that arise from individuals' interpretations of interactions and situations within specific contexts (Hochschild, 2012; Zembylas and Barker, 2007). This complexity is particularly noticeable in relation to collegial relationships and wellbeing. For example, Kaihoi et al. (2022) found that stress support was influenced by practical factors such as proximity, shared characteristics, and their professional roles within the school. As such, in this context, stress can be understood as an affective response to the demands and pressures experienced within a professional environment, which can be mediated through social relationships and support networks (Wolgast and Fischer, 2017).

However, collegial support does not consistently correlate with reduced stress or burnout, and in some cases, support networks may exacerbate stress through 'contagion' effects (Kim et al., 2017 p. 258). This suggests that peer relationships need to be understood not only in terms of support, but also in relation to the contextual environment through which support is offered, received, or withheld. For example, the micropolitical environment of a school can shape the quality and meaning of teachers' interactions, as individuals and groups negotiate interests, influence, and power within organisational contexts (Achinstein, 2002). Thus, the micropolitics of a school can shape how teachers form alliances, manage conflicts and negotiate professional identities, thereby influencing the nature and quality of collegial relationships. Peer relationships, then,

are not just support systems which contribute to collegiality, but they are shaped by the emotional and political dynamics of school life, including the meanings, relationships, and power structures that exist in each context. Considering collegiality in this way helps us better understand how collaboration both reflects and shapes the quality of relationships among teachers.

Cultural norms shape peer relationships. When trust and shared values are high, and leadership is inclusive, staff often feel part of a collective sense of purpose (Mangin, 2021) which fosters the psychological safety necessary for teachers to support one another and collaborate in a genuine manner. Conversely, toxic school cultures, driven by pressure, unclear expectations or low morale, lead to fragmented and strained relationships (Tight, 2023). Teachers in these environments often report feeling professionally and emotionally isolated (Goddard et al., 2015). These conditions intensify emotional labour where teachers must regulate or suppress feelings to meet professional norms (Hargreaves, 2004; Hochschild, 2012; Şenel and Hoşgörür, 2025). 'Surface acting' (Jaikla and Piyakun, 2025 p. 160), where frustration is hidden behind a professional front, can erode trust (Jaikla and Piyakun, 2025; Mawhinney, 2008). Ultimately, school culture plays a pivotal role in shaping the emotional tone of peer relationships, either enabling authentic collegiality or reinforcing disconnection and burnout (Van Droogenbroeck et al., 2014). Even so, for many, these everyday interactions are vital to counterbalance the emotional demands of teaching, playing a key role in teacher wellbeing and retention.

Considering these complexities, this review has explored the social, emotional and relational aspects of the peer relationships dimension of teacher collegiality, moving beyond technical accounts of collaboration to consider how school culture, leadership and informal interactions shape teachers' professional relationships. Together, the concepts suggest that understanding teachers' peer relationships requires attention to both the social structures of schools and the emotional dynamics through which professional interactions are experienced and interpreted. Previous research on teachers' peer relationships is limited. This is surprising given that their complexities contribute to the micropolitics of school contexts (Achinstein, 2002; Malen, 1994), understood as "encompass[ing] the daily interactions, negotiations and bargains of any school" (Lindle, 1999 p. 171).

Some of these aspects have been the focus of previous studies; for example, teachers' work (Brante, 2009; Perera et al., 2018) well-being (Dreer, 2023; Zhou et al., 2024), and social and emotional competence (Körkkö and Lutovac, 2024) but few have attempted to comprehensively explain the interrelatedness of the social and emotional infrastructure using a mixed methods design. Thus, the research question which guided the study was: What mechanisms underpin how teachers' peer relationships develop and function? This enabled the study to address the aim of examining teachers' peer relationships and how these dynamics may, or may not, influence decisions to remain in the profession.

3 Research design: using critical realist grounded theory with mixed methods

A critical realist grounded theory (CRGT) methodology was used in this study (Looker, 2022; Looker et al., 2021; Looker et al., 2023; Looker and Kington, 2026) to develop a theory which explains the causes underpinning observed phenomena. According to critical realism, the world is structured into three domains of reality (Bhaskar, 1978; 2016); *empirical* (observable phenomena), *actual* (structures and events which may or may not be observable), and *real* (generative mechanisms and structures). The CRGT approach used retroduction as its method of analysis (Looker and Kington, 2026) to move through these domains of reality (Bhaskar, 1978; 2016) seeking to identify generative mechanisms which formed the basis of the theory. Rather than organising data into themes or categories, CRGT uses different language to represent which domain of reality the analysis has reached. The aim of CRGT is to generate a theory which reveals the underlying processes which interact to explain all data observed (Looker and Kington, 2026). The terminology used to organise data was:

- *Empirical codes* (*empirical* domain)—these were assigned to portions of data, summarising the content
- *Possible properties* (*actual* domain)—empirical codes were integrated into possible properties based on similarities in concepts
- *Actual properties* (*actual* domain)—possible properties were modified, organised and integrated into actual properties when there was enough data to reveal a possible generative action which is occurring. For example, factors from quantitative data analysis were compared with qualitative data, to develop actual properties
- *Possible mechanisms* (*real* domain)—these were developed through the comparison of actual properties with existing literature and used to develop the theory
- *Real mechanism* (*real* domain)—this was identified through the comparison of *possible mechanisms* with existing literature to refine the theory (Looker and Kington, 2026)

In CRGT, *empirical codes* are analogous with a range of different approaches to coding, *possible properties* are similar to subthemes or categories, *actual properties* can be understood as akin to themes, and *possible mechanisms* are like overarching or superordinate themes (Looker and Kington, 2026).

Figure 1 illustrates the overall design of the project, describing how an equal status, explanatory sequential mixed methods design was employed to investigate the nature, quality, and influence of peer relationships among primary and secondary school teachers in England. After the analysis of survey data was complete, lines of inquiry were established which gave specific foci for the collection of qualitative data. These data were analysed as soon after collection as possible and, in turn, informed and updated lines of inquiry for ongoing data gathering. Approaching the phenomenon from an *a posteriori* position, the study sought to collect a broad range of data to allow the generated theory to be the closest approximation to reality. As such, one type of data offered insights not provided by the other (Fielding, 2012). Once data saturation had been achieved, the study continued to compare and integrate statistical survey data with the richness of qualitative data to generate a grounded theory which explained individual experiences, alongside the accumulative, contextual issues affecting practitioners.

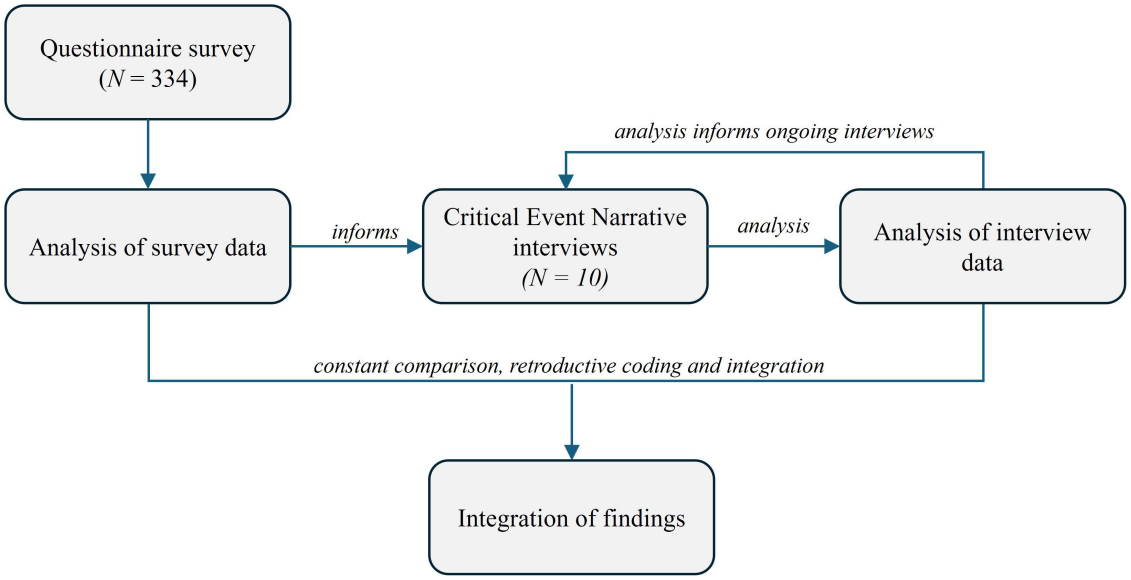

FIGURE 1
Mixed methods research design.

3.1 Survey phase

This phase of the study comprised a questionnaire survey, where participants were recruited on an opportunistic basis and were asked to respond to items with reference to their relationships with colleagues that supported them to remain in the teaching profession. The survey items were adapted from Vickers and Minke's (1995) Parent-Teacher Relationship Scale, particularly its focus on joining, trust, cooperation, shared expectations, and communication. To support the adaptation of the item pool to measure teachers' peer relationships, questions were amended according to relational trust literature (Bryk and Schneider, 2004), teacher collegiality and collaboration literature (Kelchtermans, 2006; Shah, 2012), micropolitical perspectives on teachers' professional relationships (Achinstein, 2002; Kelchtermans and Ballet, 2002), social support research (Rosenfeld and Richman, 1997), and research on teacher resilience and retention (Johnson et al., 2005; Papatraianou and Le Cornu, 2014). A summary of the respondents by career phase (Kington et al., 2014) is shown in Table 1.

As indicated in Table 1, nearly half (47%, $n = 156$) of respondents were early-career teachers (ECTs), over a third (38%, $n = 126$) were mid-career, and only 14% ($n = 47$) were in the later phase[1]. The majority of survey respondents were female across all phases, with 116 ECTs (male = 18, undisclosed = 22), 81 MCTs (male = 28, undisclosed = 17), and 28 LCTs (male = 11, undisclosed = 8). In terms of school phase, 237 teachers worked in Key Stages 3, 4 and/or 5 (71%) and 96 (29%) taught in the early years, Key stage 1 and/or 2[2].

The online national survey of primary and secondary teachers, administered via Jisc Online Survey, had three purposes:

TABLE 1 Demographic characteristics of the survey sample.

Career phase	Total	
	N	%
Early-career phase (0–7 yrs)	156	47
Mid-career phase (8–23 yrs)	126	38
Late-career phase (24 + yrs)	47	14
Unknown	*5*	*1*
Total	**334**	**100**

Italics emphasise that participants did not respond to this question item.
The bold represents totals.

i) form an initial set of results, including factors, associated with the nature and characteristics of teachers' peer relationships;
ii) identify lines of inquiry and inform questions for the interview phase of the study;
iii) assist in the identification of teachers working in a range of school contexts prepared to participate in the interview phase of the study.

The survey was trialled in the term prior to the main study and revisions were made as necessary. In total, 334 responses were received. The foci of the questions were informed by an initial review of literature and contained 23 Likert-scale questions across four main areas; shared expectations, academic progress of pupils, social interaction with colleagues, and mutual support where teachers were asked to *consider the relationships you have with colleagues that support you to remain in the teaching profession* (see Table 2 for scale items). Examination of Pearson's correlation matrix on all survey items indicated that the majority were moderately correlated (mostly ranging from $r = 0.30$ to $r = 0.70$), suggesting a sufficient common variance to

[1]Missing data: n=5
[2]Missing data: n=1

TABLE 2 Three-factor solution from exploratory factor analysis.

Item		Factor		
In this section we would like you to consider the relationships you have with colleagues that support you to remain in the teaching profession		1	2	3
R1	We trust each other	**.67**		
R3	We treat each other with respect	**.77**		
R4	This group want to see me succeed	**.78**		
R5	We co-operate with each other	**.91**		
R7	We listen to each other even when we disagree	**.66**		
R8	I value the support I receive from this group	**.80**		
R9	We understand each other's expectations on education	**.75**		
R11	We agree about our roles	**.71**		
R13	I value the shared expectations of this group	**.61**		
R2	It is difficult for us to work together		**.69**	
R6	Communication is difficult between us		**.71**	
R10	Our differing expectations are problematic		**.67**	
R12	This group expects too much of me		**.58**	
R14	I have to solve behaviour problems without help from this group		**.45**	.47
R15	It has been difficult to establish a positive working relationship		**.63**	.40
R17	We tell each other when we have successes			**.55**
R18	We liaise with each other when we have concerns			**.80**
R19	I value the opinions from this group			**.54**
R20	I can approach this group when I experience challenges at work			**.73**
R21	This group talks to me about their personal experiences			**.79**
R23	This group talks to me about their feelings			**.70**
	Cronbach Alpha (a)	***.92***	***.85***	***.87***

Loadings <.40 suppressed.
The bold refers to the factor the item was loaded onto, when there was crossloading.

justify factor analysis. No linear relationships were shown to be very strong, indicating that multicollinearity was not a concern. Factorability tests were undertaken confirming that the data were suitable for factor analysis [overall KMO = 0.92, Bartlett's $T = \chi^2(253) = 6{,}791.61$, $p < 0.001$]. Following statistical analysis of these data, lines of inquiry emerged to inform the development of interview questions during the qualitative phase.

3.2 Interview phase

At the end of the survey, respondents were asked if they would like to participate in the interview phase of the study. Those expressing an interest ($N = 52$) were contacted with a consent form (outlining ethical issues) individually with the aim of involving enough participants to ensure data were saturated. This phase used qualitative critical event narrative (CEN) interviews from a subset of 10 teachers in England, with data saturation beginning to appear after four interviews, and data fully saturated after nine interviews. The purpose of this phase was twofold; firstly, it allowed for the exploration of survey findings in greater depth using participants' identification of critical incidents which occurred during their professional lives (Farangi, 2025). Each teacher was asked to complete a pre-interview critical event timeline (Figure 2), indicating fluctuations in their professional relationships with colleagues. This allowed participants to identify the relationships with colleagues which were most important to their decision to remain in the teaching profession, including those with peers and leaders. Due to the personal and identifiable information contained within these, the example provided is a composite of several lines, serving to demonstrate how the tool was used whilst maintaining confidentiality. The second aim of this phase was to maintain the emancipatory intent of CRGT (Looker et al., 2021). The tool required participants to self-identify peaks and troughs throughout their career, meaning interviews predominantly focused on these experiences. The comparison between positive and negative critical incidents, alongside an exploration of how negative experiences could have been overcome allowed for practical implications to be developed to address these.

A total of ten teachers (6 female, 4 male) participated in interviews, equally split between primary and secondary phases. In terms of career phase, seven teachers were in their mid-career and three were in the late-career phase. Despite the high proportion of early-career teachers represented in the survey, no early-career teachers proceeded with the interview phase. In spite of this, the nature of the research tool meant that, in completing the critical event line, all participating teachers discussed the early phase of their career. Given that critical incidents are, by definition, emotionally significant and memorable (Tripp, 1993), the use of critical events as a focal point for discussion allowed all participants to provide meaningful insights (Farangi, 2025; Webster and Mertova, 2007) into early-career dynamics of peer relationships. Participants were asked which part of the event line they wished to discuss first, facilitating theoretical sensitivity. The unstructured discussion of the pre-interview task enabled participants to tell their own story through an exploration of each of the critical incidents supplemented by questions asked of all participants. These questions were developed based on analysis of survey data —examples of these included:

- Have you responded emotionally to any changes in professional relationships (both positive and negative)?
- Do you think you would have reacted differently to any of the critical incidents at different points throughout your career?
- Do you think peer relationships have influenced your decision to remain teaching?

As data analysis progressed, lines of inquiry emerged, which were added to the interview schedule to maintain theoretical sensitivity, such as "how does the school culture or environment influence experiences of peer relationships?"

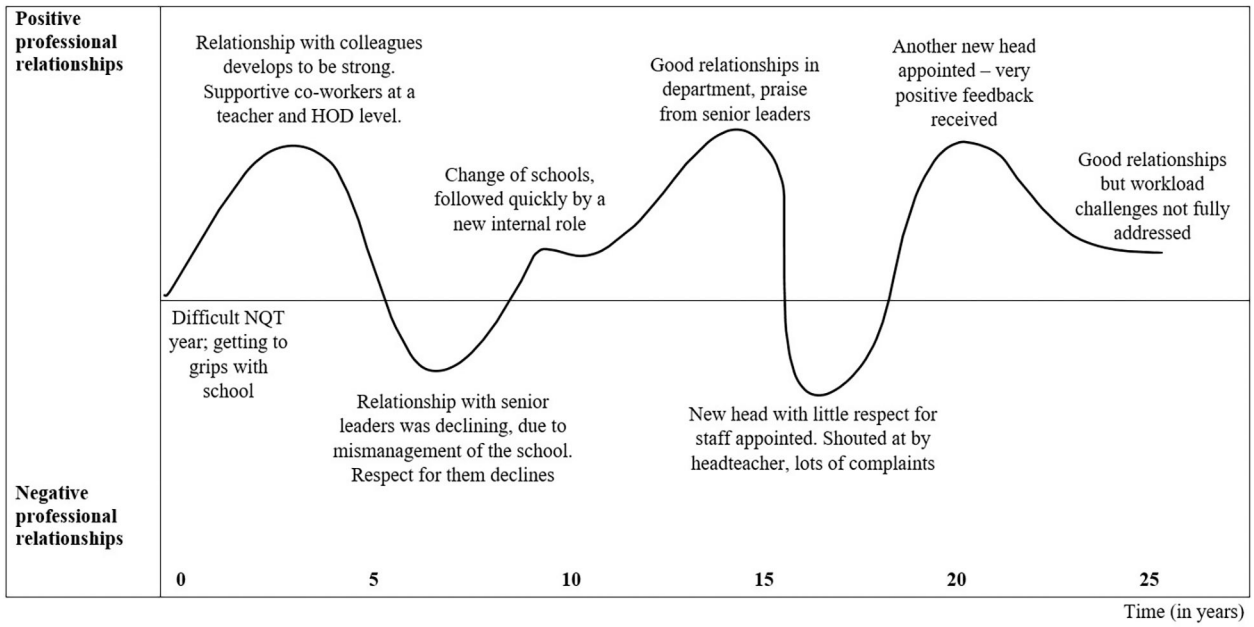

FIGURE 2
Exemplar CEN line used to structure interviews.

3.3 Methods of analysis

Analysis followed an explanatory sequential mixed methods design, with analysis of quantitative data being conducted before qualitative data were collected. Although both strands contributed equally to theory development, they provided different entry points to the critical realist domains of reality. Statistical analysis of survey data provided insights into the *actual* domain of reality, generating *possible properties*, whereas the qualitative strand was initially analysed in the *empirical* domain, using empirical coding.

3.3.1 Quantitative analysis

The survey items were adapted from a pre-existing scale which measures teacher-parent relationships (Vickers and Minke, 1995) to focus on teacher peer relationships. As this survey used items which had not previously been validated, exploratory factor analysis (EFA) followed by confirmatory factor analysis (CFA) was considered appropriate, as they are recognised as methods of analysis which reduce data to uncover hidden and unobservable patterns (Field, 2026; Vogelsmeier et al., 2024). This also supported the CRGT approach, where all data should be interrogated to reveal possible underlying patterns (Looker and Kington, 2026). Although the individual survey responses and items remained empirical data, the patterns revealed by factor analysis represented *possible properties* because they are statistically supported but incomplete accounts of the phenomenon.

The *possible properties* which emerged informed lines of inquiry for the qualitative phase, guiding the development of the CEN interview questions.

3.3.2 Qualitative analysis

CEN timelines and interview transcripts were analysed in NVivo with *empirical codes* being applied using *in-vivo* coding (Saldaña, 2025) and memos written (Glaser and Strauss, 1967) to document the analytical thought processes and theorised causal processes (Looker and Kington, 2026). As *empirical codes* were assigned, there were two possible ways these were subsequently organised into *possible properties*.

First, where an *empirical code* was conceptually aligned with a *possible property* derived from the survey data, it was provisionally associated with that property. Alignment was assessed according to both the substantive meaning of the code and any possible causal processes proposed in accompanying memos (Looker and Kington, 2026).

Second, for *empirical codes* which were not adequately explained by any *possible property*, the code was retained alone rather than forced into the existing factor structure. These codes were compared with other non-aligned *empirical codes* and, where they shared a concept and theorised causal action, were merged into a *possible property*. This meant that analysis of qualitative data was able to both refine the *possible properties* from the survey data and generate additional *possible properties* that were not represented in the survey model.

3.3.3 Retroductive integration

In mixed methods research, integration is a critical part of the process allowing inferences to be generated "beyond what either approach could alone" (Guetterman et al., 2019 p. 179). In

CRGT, retroductive integration (Looker and Kington, 2026) is used, where codes, properties, and memos are compared to triangulate the data and look for convergence, divergence and complementarity. This led to refinement and reorganisation of *possible properties*, which strengthened the confidence of any "inherent causal conditions" (Looker and Kington, 2026 p. 60), allowing for *possible properties* to be retroduced to *actual properties*. Thus, the qualitative phase was used to explain and add depth to the trends identified from the survey data, with both phases contributing equally and iteratively to the analysis and conclusions.

The process of comparison and retroductive integration was then applied to *actual properties*, alongside theoretical comparisons to develop *possible mechanisms* which represented the integration of all data and led to the emerging theory being refined and situated within existing literature. This integrated approach provided a comprehensive and nuanced understanding of how teachers' peer relationships are experienced, shaped, and valued across educational contexts.

3.4 Research ethics

Ethical clearance was obtained from the University Ethics Panel (REF: CAHE20210018) in accordance with the University Ethics Policy (2022). In line with research governance and BERA (2024) guidelines, participants were provided with information sheets assuring them of their right to withdraw, anonymity, and confidentiality. All interview participants were asked to sign a consent form before proceeding, and all data were stored and managed in line with GDPR protocols.

4 Results

As the final theory is the main finding, results are presented in as close a way as possible to how the theory emerged (Holton and Walsh, 2017). For this study, the survey results generated factors which were treated as *possible properties* and integrated with interview data, facilitating refinement. Thus, statistical analysis is presented first followed by the qualitative and integrated findings together.

4.1 Survey results

4.1.1 Exploratory factor analysis

Prior to statistical analysis, scores for negatively phrased items were reversed and sampling adequacy was assessed using the Kaiser Meyer Olkin (KMO) measure and Bartlett's test of sphericity. The overall KMO value indicated excellent sampling adequacy (KMO = .92), with individual-item values ranging from .84 to .96. Bartlett's test of sphericity was significant, $\chi^2(253) = 6{,}791.61$, $p < .001$, further supporting factorability of the data. Parallel analysis was then conducted to determine the number of factors to retain. This suggested a four-factor solution, however, inspection of the exploratory factor analysis (EFA) with a four-factor solution revealed that the fourth factor accounted for only 5% of the variance and contained weak and unstable loadings. As such, a three-factor solution was estimated and items retained if they demonstrated primary loadings ≥.40 and did not exhibit substantial cross-loadings. Item R15 (*it has been difficult to establish a positive working relationship*) cross-loaded onto Factor 2 (.63) and Factor 3 (.40) and was retained on Factor 2 because this represented its stronger loading and was theoretically consistent with the construct. Items R16 (*we do not have open conversations*) and R22 (*I do not value social interactions with this group*) were removed due to low communalities and weak or inconsistent loadings across factors. Item R14 (*I have to solve behaviour problems without help from this group*) was retained and assigned to Factor 2 on theoretical grounds, despite showing evidence of cross-loading.

The final three-factor solution (Table 2) accounted for 65% of the total variance. EFA fit indices were mixed, (RMSR = .03, RMSEA = .128, and TLI = .814), with RMSEA and TLI suggesting a suboptimal global fit at the EFA stage. Internal consistency of the relationships scale was assessed using Cronbach's alpha. All subscales exceeded the recommended threshold of $\alpha \geq .70$, indicating good to excellent internal consistency; Factor 1 ($\alpha = .92$), Factor 2 ($\alpha = .85$), and Factor 3 ($\alpha = .87$). Inspection of item-deleted statistics indicated that removal of any individual item did not substantially improve reliability for any of the three factors, supporting retention of all items within each subscale, suggesting the solution demonstrates strong internal consistency across all three dimensions. Thus, the results from EFA were retained because it produced a theoretically interpretable structure with strong primary factor loadings and was subsequently evaluated using CFA.

- Factor 1 comprised nine items (R1, R3, R4, R5, R7, R8, R9, R11, R13)
- Factor 2 comprised six items (R2, R6, R10, R12, R14, R15)
- Factor 3 comprised six items (R17, R18, R19, R20, R21, R23).

4.1.2 Confirmatory factor analysis

Following EFA, a confirmatory factor analysis (CFA) was conducted to evaluate the three-factor structure identified in the EFA. The model was estimated using weighted least squares mean and variance adjusted estimation (WLSMV), appropriate for ordinal Likert-type survey items (Flora and Curran, 2004).

Table 3 indicates that the model demonstrated good fit to the data, $\chi^2(186) = 357.55$, CFI = .996, TLI = .995, RMSEA = .053, and SRMR = .051. All items loaded significantly onto their respective latent factors, with standardised loadings ranging from .64 to .93, revealing strong relationships between observed variables and their underlying constructs (see Table 4).

CFA supported the three-factor structure identified in the exploratory analysis. Following CFA, items loaded to each factor were examined and named according to the constructs which underpinned them:

- Factor 1 (Social Contracts) refers to implicit agreements guiding professional conduct;
- Factor 2 (Effective Professional Relationships) captures the quality and depth of professional interactions;
- Factor 3 (Peer Support) includes items reflecting practical assistance and informal communication among teachers.

TABLE 3 Confirmatory factor analysis fit indices.

Fit Index	Value	Recommended
χ^2(df)	357.55 (186)	
CFI	.996	≥.90/.95
TLI	.995	≥.90/.95
RMSEA	.053	≤.08
SRMR	.051	≤.08

TABLE 4 Standardised factor loading ranges for each factor.

Factor	Items	Loading range
Factor 1	R1, R3, R4, R5, R7, R8, R9, R11, R13	0.72–0.91
Factor 2	R2, R6, R10, R12, R14, R15	0.64–0.85
Factor 3	R17, R18, R19, R20, R21, R23	0.68–0.93

As EFA and CFA reveal hidden or unobservable patterns (Field, 2026; Vogelsmeier et al., 2024), the three factors were considered to represent *possible properties*, because although hidden patterns had been revealed, they remained provisional until all data were analysed and incorporated (Looker and Kington, 2026).

4.2 Critical event narrative interviews

Quantitative results were imported to NVivo, providing three *possible properties* and information on their structure and areas of intersection. These results guided the interview questions, which were continually amended to ensure data remained theoretically relevant throughout analysis and data collection. The *empirical codes* applied to the timeline and interview transcripts were compared against each other and integrated into *possible properties* (Looker and Kington, 2026) based on similarity in concept and the memos written alongside them. It was found that many of the *empirical codes* aligned with the three *possible properties* derived from the quantitative analysis and so integration of data was suitable on these occasions. After several rounds of open and retroductive coding (Looker et al., 2023; Looker and Kington, 2026) it was established that a distinct *possible property* had emerged from interview data alone, which was not captured by the survey. At this stage, the properties contained enough data to be considered saturated, and so, after further retroductive integration and refinement, confidence in the causal nature of the *possible properties* was considered sufficient to develop them into *actual properties* (Looker et al., 2023; Looker and Kington, 2026), which are presented in the following section.

4.3 Integrated findings

The iterative process of constant comparison leading to *actual properties* involved two distinct points of retroductive integration.

4.3.1 Triangulation

The first stage of retroductive integration involved individual survey items being compared with interview data and their *empirical codes* to identify convergence and divergence between datasets. This was followed by the comparison of *possible properties* derived from both types of data, allowing for findings to be mapped onto, or used to extend, the properties. For example, the depth of knowledge gained from interview data provided a greater understanding of how participants conceptualised the factors, including the types of colleagues which had a greater influence on their experiences of peer relationships, allowing for the names and definitions of the *possible properties* to be re-examined.

The joint display table (Table 5) summarises how both data sets were integrated during triangulation, which illustrates how comparison of both types of data resulted in the development of *actual properties*. The *possible properties*, identified from the confirmatory factor analysis, are presented alongside an example survey item. To demonstrate the connection between both data sets, quotations from interviews are provided in the following column and the name of the *actual properties* given after this. A summarised memo, which was written during analysis, provides a commentary of how retroductive integration refined property names or definitions. The final *actual property* (Culture and Support) was derived from CEN interview data only and thus does not have a quantitative component to it. Comparison of qualitative data with the three-factor solution from CFA provided enough confidence in the data for the *possible properties* to be retroduced to *actual properties*.

After constant comparison and integration of both types of data, shown in Table 5, four *actual properties* were generated, which guided the theory development. Of the four *actual properties*, only one retained the name of the original factors from CFA (*actual property* 1, social contracts). Two *actual properties* reflected a slight renaming of the *possible properties* (*actual property* 2, quality of professional relationships; *actual property* 3, peer interaction) to better reflect the full scope of the integrated data. An additional, fourth *actual property* (culture and support) was revealed from qualitative analysis. While the final quantitative model comprised three factors, the refinement of their names and descriptions, and the generation of a fourth *actual property* through integration, reflects the explanatory scope achieved through mixing data and retroductive analysis.

The final names and descriptions of all *actual properties,* which incorporate insights derived from both quantitative and qualitative analysis are:

1. Social Contracts referring to implicit personal agreements guiding professional conduct
2. Quality of Professional Relationships capturing the range of quality and depth of professional interactions
3. Peer Interaction reflecting the presence or absence of practical and emotional assistance among teachers
4. Culture and Support encompassing items related to informal communication, collegial exchanges, and the interaction between staff and the culture of the school environment

4.3.2 Complementarity

The second point of data integration occurred at the point of analysis where the *possible mechanisms* began to emerge (Looker and Kington, 2026) through comparison and retroductive integration of *actual properties* (Looker et al., 2023; Looker and Kington, 2026). This is the stage of retroductive analysis where

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TABLE 5 Joint display table illustrating the integration of data through constant comparison.

Possible properties (from CFA)	Example item (from survey)	Example quotation (from CEN interview)	Actual properties (after integration)
Social Contracts	We agree about our roles	There was nobody you could speak to without fear that it would be used against you.	Social Contracts
Summarised memo: CFA factor refers to professional social contracts. Integration widens the description to include both personal and professional social contracts.			
Effective Professional Relationships	It has [not] been difficult to establish a positive working relationship	So that relationship with the NQT who I'd helped so much and was nice friends with as well, that really helped me in that moment	Quality of Professional Relationships
Summarised memo: Survey item, before reverse scoring, measures negative relationships only. Participants spoke about both positive and negative professional relationships. Quality captures this range			
Peer Support	This group talks to me about their personal experiences	She regularly kind of appreciates what I do, recognises the hard work I put in and says it fairly frequently	Peer Interaction
Summarised memo: This property's name has changed because all data coded suggests that support is a separate mechanism. Upon re-examining the items on the survey, the language is more about a broad range of interactions, which can be, but are not necessarily supportive.			
n/a	n/a	Secondary school sites are much bigger, which is why people stay in their department teams because they've got a department building which might have some office and social space within that building, whereas primary schools aren't big enough to have that.	Culture and Support
Summarised memo: Analysis of the CEN interview data revealed a separation between interactions and support, with interactions capable of being supportive or not. Empirical codes related to support were, therefore, removed from interaction and merged with empirical codes related to culture, which was found to be capable of both facilitating or providing a barrier to support.			

underlying generative mechanisms are beginning to be identified. Comparison of data within the *actual properties* revealed strong overlaps between the ways participants spoke about different constructs, suggesting the *actual properties* were suitable for integration into *possible mechanisms* (Looker et al., 2023; Looker and Kington, 2026). Before this process was undertaken, comparison was made against the factor correlation matrix from the CFA (Table 6) to identify if the statistical analysis revealed any strong correlations between quantitative factors.

Comparisons with the factor correlation matrix from CFA revealed that although the final measurement model identified three distinct factors (properties), these were strongly correlated (r = 0.75–0.83), indicating a high degree of overlap between constructs. This suggested the presence of broader underlying mechanisms which might influence the *actual properties*, providing greater justification for *actual properties* to be integrated into *possible mechanisms*. Thus, comparisons between the *actual properties* continued, changes made where appropriate, and further memos written resulting in the development of two *possible mechanisms* which represented structures in the *real* domain of reality and provided explanations that accounted for patterns observed across both datasets.

TABLE 6 Factor correlation matrix from CFA.

Factor	1	2	3
1		.79	.83
2	.79		.75
3	.83	.75	

4.4 Possible mechanisms

Two *possible mechanisms* (Looker and Kington, 2026) were revealed, (i) Professional Culture and (ii) Social Interaction.

Professional Culture comprises Quality of Professional Relationships (*actual property* 2) and Culture and Support (*actual property* 4), referring to professional aspects of relationships and how they are situated within the wider culture of the school. Although emotion is not absent from this *possible mechanism*, the language used by participants largely takes an emotionally neutral tone. For example:

> So, my immediate line manager at the time was, you know, really good in that she would let both me and the rest of the department get on with stuff. She would come around. Would talk to us, quite a collegial feel to the department in the main. And the managers above her too, were very much "You're all professionals—that's why we've hired you"

The second *possible mechanism*, Social Interaction contains Social Contracts (*actual property* 1) and Peer Interaction (*actual property* 3). Unlike Professional Culture, it is characterised by emotional responses to the presence or absence of personal relationships and experiences. For example:

> And there is that sort of difference between being left on your own because you've been trusted and being left on your own because you're on your own.

Although often contextualised by the work environment, the possible mechanism is characterised as affective in nature by participants.

4.4.1 Possible mechanism 1—professional culture

Throughout the interviews, participants frequently discussed how trust between colleagues is shaped by the school environment and everyday leadership interactions. Early formative experiences show how trust is established:

> Professional trust, even at that very early stage of my career, I found really valuable

> Having that sort of default starting point of you're a fellow professional who knows what you're doing rather than the default starting point being 'we need to manage you carefully to avoid mistakes'

Participants found trust to be a prerequisite for effective professional relationships, as when trust is absent, the climate is often described as becoming defensive and adversarial:

> The head started this inset with: 'We have to do this because the teachers aren't very good'. Everybody felt like they were under attack.

Relationships founded on these terms were seen by teachers as unsupportive and a contributory factor to high staff turnover rates. Participants spoke about the negative effects of teacher churn, and how the uncertainty brought about by this can lead to fragmented relationships:

> The teacher who is staying [not handing in their notice], has also been off with stress. So, basically, I've been last man standing.

By contrast, perceptions of stability re-established professional trust, helping to build a supportive school environment:

> Our current head has worked at the school for 26 years… everything in SLT is stabilising down again.

A culture built on professional trust did not mean that staff expected to be able to do what they wanted. Instead, staff appreciated it when leaders were candid with their expectations and boundaries:

> She [school leader] was firm and fair…admitted when she was wrong. You knew what was up for negotiation and what wasn't.

It was also found that the cultural dynamics in a school can reorganise staff perception of collegiality, particularly when participants recalled a combative culture:

> In a school where it's tough, 'us' becomes staff and 'them' becomes the kids.

> In another school, where the school is thriving, 'us and them' becomes teachers and leaders

This was reflected by other participants, who recalled moments when staff united despite differences of opinion:

> Seeing people [colleagues] who had spoken out against the strike on the picket line because they knew it was important to other people

Professional Culture extends further, including how curriculum and accountability processes shape perceptions of trust and support. Several participants spoke about an over-reliance on published schemes of work in which schools had invested. Whilst for some it was seen as a supportive mechanism, for others it was seen as contributing to workloads or a gradual erosion in professional autonomy:

> The younger teachers love it because the workload is so massive

> Phonics is a script… I can understand why it's been introduced, but I never think you deliver somebody else's curriculum as well as you do your own.

Staff spoke regularly about the high and increasing workload in teaching, which was found to be particularly overwhelming when compounded with other stressors such as resourcing gaps:

> The pressure came on the rest of us to fill in the gaps… relationships became more strained.

> It was presented to me by the head that I needed to be senior teacher…no extra PPA… not even the PPA that I should have.

Although these complexities reflect the most emotive language used by participants in the Professional Culture *possible mechanism*, they were not spoken about as personally emotive topics. This was even the case when participants recalled moments of difficult staff relationships:

> I found the big school quite brutal in relationships between the staff…The competition was fierce

Perhaps even more surprisingly, when a participant recalled an incident which presented a very challenging ethical dilemma, it was shared without emotional language but instead with a tone of surprise that they were put in that position by a manager:

> He [the headteacher] called me in the office and said: 'Attendance [for a member of staff] is not good enough.

> You need to go and tell her we're not paying her for any more days off. I don't care if she's got cancer'.

> And I was like, 'what? I ain't doing that!'

Participants' recollections show that professional culture sets the climate within a school, where support determines the degree to which staff can thrive within it. A school climate which engenders trust, alongside reliable formal support was found to be associated with autonomy and promoted positive professional relationships between colleagues. Where a lack of trust and inconsistency dominate, goodwill fills the gaps, but at personal cost, characterised by a drop in morale.

4.4.2 Possible mechanism 2—social interaction

Social Interaction was found to relate to peer trust and daily workplace dynamics which shape the emotional climate of schools and professional relationships. This *possible mechanism* stands in contrast to Professional Culture by the level of emotional language used by participants. This suggests there is a strong emotional connection to social interactions which is not present for professional relationships and school culture. For example, when trust was replaced by suspicion, participants spoke of an almost immediate emotional response:

> There was no trust either of the teachers or within the teachers. Nobody trusted each other and that was led very much from the top.

This culture of fear was reinforced by punitive tones in leadership communication which undermined morale and corroded relationships. Teachers described feeling exposed and isolated:

> There was nobody you could speak to without fear that it would be used against you.

> I felt professionally, very lonely at that point.

> So, my head of department was, I'm going to use this word, was a bully

The emotional language used by participants suggests teachers view collegial bonds as fragile and subject to wider influences. However, even when participants experienced this, they often sought refuge in solidarity, with informal alliances becoming a way to resist negativity:

> Almost like you resisted some of the negative aspects of the culture as a team by working together to create a more positive staff relationship, so having each other's backs.

For some, this sense of a shared struggle was seen as validating, and a way to cope with negative aspects of the job:

> That sense that you're not the only one feeling that way

> There's a real sense of pulling together that everyone wanted the same, that we would support each other

On the other hand, when leadership developed trust with staff, the tone shifted, with participants describing environments where autonomy was assumed, not earned:

> Giving you that sense of trust of letting you do stuff without trying to sort of micromanage it

> That was very much led from the top by the headteacher, you know, she sort of modelled how professional relationships should and could work

Participants also spoke of the importance of shared spaces to help develop social relationships and positive personal interactions, which act as emotional buffers:

> Having a staff room where people will go and sit and talk to each other is a big difference…it is a big counter to any sort of feelings of loneliness, professionally or personally.

For participants, these spaces were not trivial, providing an opportunity to develop peer relationships which offer professional and emotional support:

> You can offer to help people; people can offer to help you. Share advice, support…you're not on your own.

> This is where I met [name], actually. So, I made great friends with [name] and other friendships too. We would go out..so you know, I had other friends, you know? It [time in school] wasn't all bad.

When these social networks collapse or were absent, participants spoke of an acute feeling of isolation:

> It was sort of the continual isolation within the department. And the continual feeling that … I'm having for the first time some horrible criticisms levelled.

> And that's affected my relationships because it's ever so lonely. It's really lonely.

Although this repetition of "lonely" conveys the emotional cost of disconnection, these were not isolated comments. Participants linked connection with colleagues with the ability to control stress:

> If you've got the support of colleagues, then it's a lot easier to manage your feelings…you can just go into the staff room and say something and then come away again

> I felt trapped and I ended up having…an anxiety attack

Although personal connections with colleagues helped teachers manage emotionally stressful encounters, this protective factor is not a panacea for all negative experiences:

> The critical event sort of climaxed with my boss, who was just vile. He took me aside in a public area, in the hall, and sort of shouted at me…It was like somebody who doesn't want to share any of their toys with you, then shouting at you because you're not playing with the toys…if that makes sense. It was just such a really horrible experience, that I only lasted 2 years there

In situations where participants felt isolated and unable to control their environments, micro-support systems became survival strategies:

> Sometimes I'll just go in the secretary's office and shut the door for a minute and count to 10 and walk out again.

The findings associated with this *possible mechanism* show how social interactions provide the emotional scaffold of school life and staff relationships. When collegial trust is strong, participants found it helped to foster resilience against structural pressures and strain. When trust is fractured, isolation and stress escalate, leading staff to improvise solidarity through informal and social networks. The difference between positive and negative experiences often lies in whether these social interactions are supported by a culture that values openness.

5 Discussion

The data reported in this paper explore peer relationships among teachers in schools by analysing the importance they place on relationships with colleagues. Confirmatory Factor Analysis (CFA) revealed three key factors of the peer relationships dimension of collegiality which were then modified as qualitative data were integrated and analysed. Through retroductive analysis and theoretical comparisons, the concept of *mattering* was identified as the *real mechanism*, explaining teachers' peer relationships, emotional experiences, and retention decisions. Although mattering was not included as part of the literature review, this demonstrates the strength of using CRGT as a methodological approach. Comparisons of data analysis with literature, which were made in the latter stages of analysis, identified mattering as a core psycho-social concept which provided explanatory power for all data collected. For example, social contracts, which was derived from CFA and also found during analysis of CEN interviews can be explained through the concept of mattering, suggesting it provides causal explanatory power. Had a theoretical framework been decided upon at the start of the study, this framework would have been applied to analysis; thus, CRGT's use of theoretical comparisons allowed for mattering to be identified as a concept which can explain all data collected. While previous studies have described collegiality in either idealised terms or as a structural feature of a school organisation (e.g., Little, 1990; Shah, 2012), our findings suggest that the emotional experience of mattering within peer relationships offers a more nuanced lens through which to understand its relational and affective dimensions. Mattering can be understood as a psychosocial phenomenon which involves feeling noticed or valued by others, and believing that one's actions count (Prilleltensky, 2020; Rosenberg and McCullough, 1981) are prevalent. In contrast, anti-mattering, where individuals experience being invisible, dispensable, or unable to contribute meaningfully, emerges as a counter-mechanism. Mattering, as a concept, has been well documented over the past five decades (see Flett, 2022; Paradisi et al., 2024; Rosenberg and McCullough, 1981), and is put forward as a universal human need (Rosenberg and McCullough, 1981) or 'fundamental human motivation' (Elliot, 2009 p. viii).

5.1 Conceptual framing of mattering/anti-mattering

Originally, Rosenberg and McCullough (1981) define mattering as an adolescent's belief that, to others (most often parents), they are an object of interest, importance, concern, or reliance. The term has since been expanded to include interpersonal (to specific significant others) and societal (one's perceived significance in a broader social institution) concepts of mattering (Paradisi et al., 2024). Paradisi et al.'s meta-analysis demonstrates significant associations between perceived mattering and wellbeing, with the effect size increasing for eudaimonic wellbeing specifically. This aligns with the findings presented in this paper, where participants spoke emotively about how feeling valued or isolated affected their sense of self. Furthermore, it has been found that individuals scoring highly on mattering surveys were associated with lower burnout and higher engagement (Haizlip et al., 2020). As such, mattering can be seen as not only a correlate of emotional stability, but as a social structure with generative properties. Similar themes are found in studies of teacher wellbeing and retention, where emotional isolation and lack of recognition are closely linked to burnout and attrition (Geisler et al., 2019; Kelchtermans, 2017; Skaalvik and Skaalvik, 2015; Van Droogenbroeck et al., 2014). The findings from this study suggest an association between teachers feeling they matter (to the organisation or to colleagues), and a positive sense of professional peer relationships; when they feel they do not matter, the opposite may follow.

From a critical realist perspective, mattering can be conceptualised as a mechanism located in the *real* domain. According to the theory, when activated, through structural and relational conditions (the *actual* domain), the observable effects (*empirical* domain) present as a feeling of being valued, trusted, and supported. Conversely, when mattering is not activated in the *actual* domain (due to an absence of positive structural and relational conditions), a feeling of not being trusted, or valued emerges, known as anti-mattering. Therefore, this study presents mattering as a *real mechanism*, central to the grounded theory, and a lens through which the two *possible mechanisms* are interrogated.

5.2 Developing the theory: the relational dynamics of mattering

The *possible mechanisms* (Professional Culture and Social Interaction) identified in the data may be understood as relational and structural conditions that either enable or inhibit

the mechanism of mattering. They are the basis on which the grounded theory presented, the Relational Dynamics of Mattering (RDM), is built.

Professional Culture (Quality of Professional Relationships & Culture and Support) captures the relational ethos and structural and micropolitical context of the school. In such a context, mattering is more likely to be activated if trust, autonomy and recognition are embedded. For example, Quality of Professional Relationships describes the depth, tone and range of relationships between peers and leaders. High-quality relationships, characterised by trust, autonomy and positive interactions, create conditions where teachers feel they are recognised and contributing; they feel they matter (Akinyemi et al., 2020). This is consistent with the findings of Kelchtermans and Ballet (2002), who argue that recognition and professional trust are essential for cultivating a sense of value among teachers. Conversely, negative professional relationships which can feel adversarial or untrusting, create conditions for anti-mattering, where teachers feel over-monitored and undervalued.

Furthermore, Culture and Support, understood as the broader structural and cultural environment of the school (leadership, policy, resource, staff turnover) provides conditions which can enable or disable mattering. For example, it was found that a supportive culture fosters stable professional relationships and strong peer networks, whereas a punitive, unstable, or isolating culture undermines these conditions, initiating anti-mattering. These findings also indicate that Professional Culture has a micropolitical dimension, where teachers' experiences of trust, recognition, autonomy, and being over-monitored are shaped by how power, influence, and professional legitimacy are negotiated within the school context (Achinstein, 2002; Kelchtermans and Ballet, 2002). Thus, differing micropolitical environments may help to explain why similar forms of support or collaboration can be experienced differently across contexts. These findings align with previous research on school culture, which has shown that inclusive leadership and relational trust support collegial ties (Mangin, 2021), whereas toxic or unstable cultures, characterised by performative pressures and emotional isolation, hinder these (Goddard et al., 2015; Tight, 2023). The emotional labour often required in such negative working environments (Hargreaves, 2004; Mawhinney, 2008) may further erode teachers' sense of being seen or valued, resulting in the activation of mechanisms of anti-mattering. When participants recollected events associated with Professional Culture, it was usually with emotionally neutral language. This suggests that although Professional Culture functions as a mechanism through which mattering is either generated or restricted, it reflects the operation of institutional, not personal, mechanisms. A positive culture can be seen as a stage providing a stable structure which supports the development of mattering. Conversely, the grounded theory argues that a negative culture can provide the conditions which inhibit or slow the development of mattering.

Social Interaction (Social Contracts & Peer Interaction) captures the processes through which teachers experience mattering in a personal way. It represents an emotional side of mattering, where teachers speak about being noticed, supported, and valued by peers and leaders (Hargreaves, 2001). For example, Social Contracts refers to the implicit personal agreements guiding professional conduct such as trust, respect and reciprocity. When these social contracts are honoured, teachers speak emotively about feeling valued and included, consistent with feeling like they mattered. For example, '*having each other's backs*' signals that an individual's contributions matter to the wider group. When such contracts collapse ('*you're left on your own*'), anti-mattering is experienced, leaving teachers feeling dispensable or invisible.

Similarly, when Peer Interaction is perceived as positive, frequent, reciprocal and supportive, teachers feel valued and experience mattering. This conceptualisation of Peer Interaction extends Mawhinney's (2008) findings that the staffroom is a space where emotional labour is eased through humour and solidarity, to one where positive interaction can drive mechanisms of mattering. When such interactions are absent, the generative mechanisms leading to mattering are not activated, leaving the teacher feeling lonely or isolated; anti-mattering has been activated. Thus, the RDM presents a different conceptualisation of teachers' peer relationships. Instead of limiting the definition to the quality of relationships among staff in a school (Bovbjerg, 2006; Kelchtermans, 2006), it provides insight into the emotional dynamics and interactions with infrastructure, which underpins the emergence of collegial

TABLE 7 Summary of generative mechanisms and their association with mattering.

Possible mechanism	Generative process	Association with the real mechanism, mattering
Professional culture	Recognition pathway	When leadership fosters professional trust and autonomy, high-quality relationships are more likely to crystallise, enabling teachers to feel they matter.
Professional culture	Anti-mattering pathway	When culture is characterised by instability, micromanagement, lack of recognition, and poor peer connection, mechanisms leading to anti-mattering are activated. Teachers feel invisible, invest less in their environment, and may consider leaving the profession.
Social interaction	Contribution pathway	When teachers are afforded genuine opportunities to contribute (peer interaction, sharing expertise, mentoring), their sense of adding value could increase, enabling mattering and protecting against anti-mattering.
Social interaction	Interactional pathway	Frequency and reciprocity of peer interactions, operates as a mediator of mattering: reciprocal support could contribute to the sustainability of social contracts and a stronger feeling of mattering.

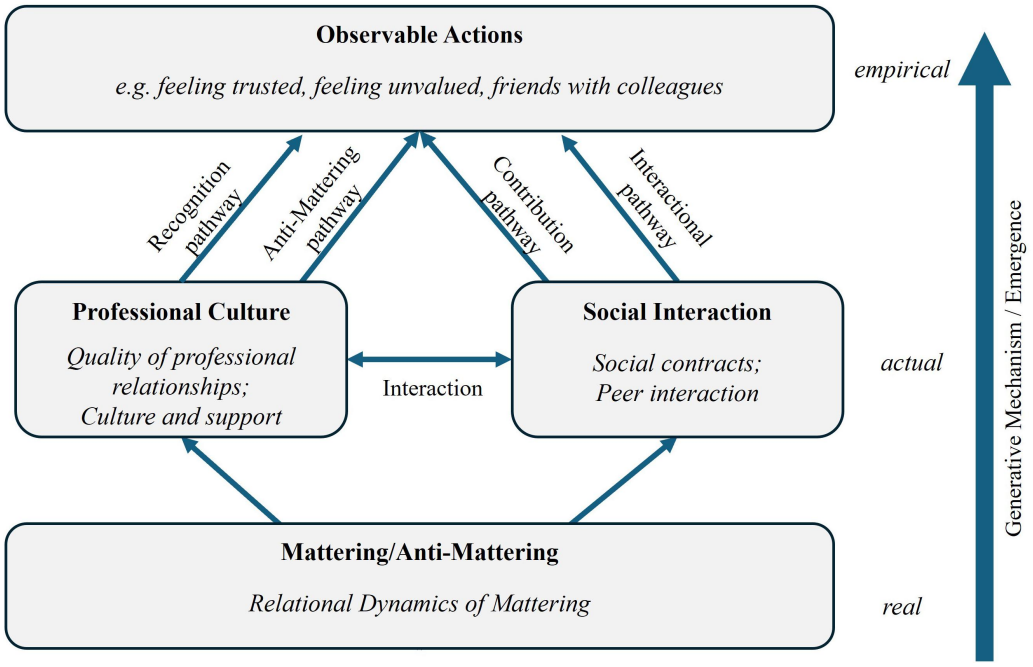

FIGURE 3
The grounded theory—Relational Dynamics of Mattering (RDM).

relationships. This is done through the presentation of the basic human need to feel mattered (Elliot, 2009; Rosenberg and McCullough, 1981) as a *real* structure which interacts with *actual* events (structural, organisational, and social interactions) to generate *empirical* actions which can result in teachers having a range of experiences. For example, teachers who displayed characteristics of mattering spoke about wanting to remain teaching, whereas when they experienced anti-mattering, participants spoke about either wanting to leave their current employment, or the teaching profession.

5.3 Generative properties of the RDM

Following the process of CRGT, the process of retroductive integration revealed generative mechanisms (Table 7) contained within the development of the Relational Dynamics of Mattering.

Table 7 shows how these pathways of emergence work through the critical realist layers of reality as well as their association with mattering. The pathways outline how structures in the *actual domain* of reality interact and emerge as empirical, observable actions. These pathways are incorporated into Figure 3 which provides a visual representation of the Relational Dynamics of Mattering, demonstrating the generative properties of the theory.

At the base of the figure, mattering and anti-mattering are shown as the *real mechanism* with generative processes influencing how teachers experience collegiality. Above this, in the *actual* domain are the two *possible mechanisms*, Professional Culture and Social Interaction. The bidirectional arrow between these represents the intersection between these structures, where professional contexts shape personal experiences, while social interactions can sustain or erode professional culture. Above these, the *empirical* domain depicts the observable actions which have emerged through the generative processes of the *real* and *actual* domains. Depending on whether the observable actions are positive or negative, these reflect whether mattering or anti-mattering has been activated. The arrows depict the generative emergence from underlying mechanisms to observable outcomes, consistent with critical realist ontology. When the conditions of Professional Culture and Social Interaction enable mattering, teachers experience belonging, trust, and collegiality. When those conditions fail, anti-mattering emerges, producing disconnection and stress.

6 Conclusions

These findings have important implications for understanding the dynamics of how peer relationships contribute to collegiality in schools, highlighting the complex structure of these relationships and emphasising the need for targeted efforts to strengthen them. A key strength of this study lies in its mixed methods design, and iterative approach to data integration, producing a rich, theoretically grounded re-conceptualisation of how peer relationships influence collegiality. CRGT's retroductive approach aims to move beyond surface correlations to use the data to identify deeper causal structures. In the present study, this method of data analysis allowed the grounded theory, the Relational Dynamics of Mattering, to include emancipatory actions which can offer actionable and realistic implications for policy and practice.

6.1 Professional considerations

The RDM developed offers a novel lens highlighting how relational mechanisms of mattering, such as recognition, trust,

and belonging are not peripheral but central to professional sustainability. As such, practical implications, linked to the *possible mechanisms* (Table 7) call for a reorientation of school practices and policies toward conditions that enable teachers to experience mattering rather than anti-mattering. Since attempts to strengthen peer relationships are unlikely to be effective where informal hierarchies, mistrust, exclusion, or uneven access to recognition and support remain unaddressed (Achinstein, 2002; Kelchtermans and Ballet, 2002), these implications require paying attention to the micropolitical cultures of school life. Possible examples include:

- Professional culture: Training of senior leaders in trust-based leadership that facilitates professional autonomy and recognition over performative accountability, minimising cultures of fear and micromanagement.
- Professional culture: Training middle leaders in sustaining cultures based on mutual professional trust and embedding strategies for sustaining positive peer relationships, which can influence a sense of collegiality.
- Social interaction: Raising the status of continued professional development that aims to cultivate and sustain peer relationships, to be equal in value to training focused on pedagogical practices.
- Social interaction: Protect, or re-introduce, inclusive spaces for informal interaction (e.g., staffrooms, peer networks) to counter isolation.

These measures position peer relationships as a priority for educational organisations, giving leaders the opportunity to demonstrate value, trust and respect for teachers, helping to foster agency and autonomy. As such, a school culture which embraces the grounded theory of Relational Dynamics of Mattering should help to activate the mechanism of mattering in teachers. This can be achieved through supportive professional cultures and authentic social interactions (Farangi et al., 2026), leaving teachers feeling empowered to have a positive effect on their environments, peers, and pupils.

6.2 Limitations and implications for future research

While the qualitative sample achieved saturation within CRGT parameters, and the survey provided robust factor structures, there was an imbalance between the two data collection tools in terms of sample representation across the career phases. While the survey sample was weighted towards early-career teachers, no teachers from this phase participated in the follow-up interviews. Although the use of critical event narrative interviews enabled participants to reflect on significant experiences across their careers, including the early-career phase, it does mean that experiences of early-career teachers are retrospective insights. A second limitation is that negative case analysis was not included in the design of the study. Including this in future research would provide opportunities to develop and modify the grounded theory.

Thus, the intention is to continue this strand of work, focusing on using the RDM as a theoretical framework to underpin further research exploring variations across teachers' career phases. By including negative case analysis, this could help to extend or modify the grounded theory. Additionally, future research should extend the survey by developing items from the interview data to capture Culture and Support, testing whether a validated four-factor measure of teachers' peer relationships can be established.

Data availability statement

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

Ethics statement

The study involving humans was approved by the Education, Culture and Society Research Ethics Panel, University of Worcester. The study was conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

AK: Methodology, Writing – original draft, Conceptualization, Formal analysis, Writing – review & editing, Investigation, Data curation, Project administration. BL: Writing – original draft, Formal analysis, Visualization, Data curation, Conceptualization, Writing – review & editing, Methodology, Investigation, Software. ID: Writing – original draft, Formal analysis, Investigation, Writing – review & editing. TW: Formal analysis, Writing – original draft, Conceptualization, Data curation, Investigation. KB: Investigation, Methodology, Writing – original draft, Conceptualization.

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