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Developing and retaining talented mentors as the signature pedagogy for school leaders

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Abstract

Teacher retention remains a persistent and acute challenge for many education systems, and England is no exception. Drawing on case study evidence from a four-year mixed methods investigation into the impact of a UK government-funded teacher induction programme on retention, this article examines the role of school leadership in creating the optimal organisational cultures and conditions that develop and retain skilled mentors and through this, ensure the effective mentoring of early career teachers. Evidence points to signature leadership practices that are perceived by mentors as instrumental in enabling them to grow to become pedagogical leaders who inspire the learning of their early career colleagues and support them to improve practice. In so doing, they become an integral part of the organisational learning structure and culture, and their effective mentoring contributes to the professional and moral underpinnings of practice in school.

Keywords school leadership; mentoring; teacher retention; organisational learning; school culture

Introduction

Compelling evidence suggests that effective mentoring contributes to early career teachers' (ECTs) increased commitment to teaching and retention (for example, Danielson, 2002; Leithwood et al., 2024). Not surprisingly, many education systems have included structured mentoring as a key component of the induction programmes for ECTs. Although mentoring strategies and goals may vary across education systems and induction programmes, in essence, mentoring entails the personal guidance and support provided by experienced teachers as mentors to their assigned ECTs in schools (Moir et al., 2009; Smith and Ingersoll, 2004). Effective mentors model desired practices, provide constructive feedback to mentees on lesson observations and help mentees set clear goals for their own learning (Oplatka and Lapidot, 2017).

Although much has been written about the effects of mentoring on beginning teachers' development and retention (for example, Hong and Matsko, 2019; Luong, 2025; Smith and Ingersoll, 2004), relatively less is known about what school leaders, and headteachers especially, do to effectively grow and develop mentors – ensuring that mentoring experience helps increase their organisational commitment and retention in schools. Much research has documented large variations in the form, purpose, length, intensity and impacts of mentoring on mentors and mentees. What has been relatively silent in the literature is how mentoring has been orchestrated by school leaders as a formal strategy to broaden and deepen organisational learning, so that mentoring activities are not seen in isolation from schools' improvement efforts to energise professional dialogue and to advance the quality of teaching and learning. With this, Shulman's (2005) signature pedagogy theory offers a useful conceptual lens to better understand leadership practices designed to grow mentors to become pedagogical leaders and embed mentoring as a formal structure for advancing organisational learning, improving teaching practices, and enhancing teacher commitment and retention in schools. These practices are school leaders' 'signature pedagogies'.

It is important to note that while mentors play a unique role in their schools, they are also part of their schools' teaching staff, and they are influenced in their retention decisions by most of the same conditions as their teaching colleagues, along with conditions unique to their mentor roles. Given similar student populations, in a high-retention ('sticky') school, supporting the professional learning and development of mentors is found to be part of, not an add-on to, leadership strategies aimed at creating the social and intellectual environments that enable individuals and teams to engage with one another to improve practice (Gu et al., 2023; Leithwood et al., 2024). Such evidence highlights a major source of the retention solution: the school organisation – where teachers thrive, and thus want to stay to fulfil the inner rewards that the teaching profession can provide (Gu et al., 2025; Johnson, 2019).

In this article, we consider the school organisation as the unit of analysis, and we explore in depth how headteachers create the cultures and conditions that are conducive to mentors' own professional development, as well as to the professional growth of their early career colleagues. The argument of this article is centred upon the research question: What do headteachers do to develop mentors in their schools? Two sub-questions focus our analysis further: (1) What drives headteachers to invest in mentor development in their schools? and (2) What are their signature pedagogies that ensure effective mentoring in their schools?

The challenge of retaining skilled teachers

Global reports continue to present alarming findings about persistent teacher shortages regardless of the country income level (for example, UNESCO and International Task Force on Teachers for Education, 2024, 2024). In many low- and medium-income countries, for example, where school enrolment is on the rise, an acute shortage of qualified primary teachers represents one of the greatest hurdles to providing inclusive and equitable quality education for all school-age children by 2030, especially those living in rural areas, due to inadequate incentives for recruitment and retention (UNESCO, 2011, 2014, 2015; United Nations, 2019).

In high-income countries, such as the USA, the UK and many European countries, high teacher attrition rates have reached such serious levels that governments cannot replace the increasing numbers leaving the profession (UNESCO and International Task Force on Teachers for Education, 2024, 2024)

and the overall number of teachers has failed to keep pace with increasing student numbers since 2011 (House of Commons, 2021).

Teacher attrition rates are unevenly distributed across teacher characteristics and education settings. Attrition is especially high among teachers in their first five years of teaching (Burghes et al., 2009; Darling-Hammond, 1997; Department for Education, 2023; Ingersoll, 2003; Kardos and Johnson, 2007; Organisation for Economic Co-operation and Development, 2005, 2011; Shen and Palmer, 2009), and among teachers of core subject areas, such as mathematics, modern foreign languages and science (European Commission, 2012; UK Parliament, 2023). Attrition rates are also especially high in schools serving socio-economically deprived communities (Allen and McInerney, 2019; Boyd et al., 2008; Guarino et al., 2006; Ingersoll, 2001), in high-cost urban areas, remote rural communities and districts serving predominantly students of colour (Stevenson and Milner, 2023). In addition, leadership turnover is especially higher, while leadership and teacher quality is especially lower, in schools serving high-need communities (Boyd et al., 2008; Goldhaber and Hansen, 2009; Grissom et al., 2019; Loeb et al., 2005; Sibieta, 2020), where most children, who are already disadvantaged in accessing or benefiting from rich cultural capital in their early years, are then denied access to the quality education to which they are entitled when entering the formal school systems (Gu, 2022).

The UK government has developed a teacher recruitment and retention strategy (Department for Education, 2019) incorporating, among other elements, an Early Career Framework (ECF) for new teachers and their in-school mentors. This initiative aims to improve the professional development and support for ECTs, and to provide further development opportunities from initial teacher training to initial preparation and induction. The role of mentors is to support early career teachers' professional development during their two-year induction (Department for Education, 2022). The Department for Education supports schools with additional funding for ECF-based professional learning and development, which shows policymakers' recognition of the importance of mentoring in schools. University College London (UCL) is one of five national providers of the ECF induction programme in England. This four-year longitudinal study, of which the research described in this article is one component, examines the effects of the UCL-led ECF programme on ECTs' and mentors' retention decisions.

Leadership practices for developing effective mentors

Evidence from our wider research project points to the centrality of the school organisation in transforming support for ECTs' and mentors' professional development and for achieving the intended retention outcomes as envisaged by government policy (Gu et al., 2023, 2025; Leithwood et al., 2024). To better understand how schools transform organisational learning and support for mentors, we reviewed the existing empirical research on school leadership, school improvement and mentoring over the past two decades, and we identified five leadership and organisational practices that were found to have effectively promoted mentor development and mentoring practice in schools. The synthesis of the existing research offered evidence supporting the observations we made from our wider research project, and it therefore contributed to our selection of practices.

Distribute leadership

Existing literature highlights some key leadership practices that school leaders use to develop mentors, which can be considered to be part of this signature pedagogy. One of these practices is distributed leadership reconceptualised as *practice*, which emphasises *interdependent* interactions between leaders, followers and their situations (Harris et al., 2022). In the context of mentoring, Hudson and Hudson (2011) emphasise the important contribution of mentors taking on informal leadership roles to assist mentees in their teaching practices. According to Harris and Chapman (2002), distributed leadership emphasises a collaborative approach to empowering others in an organisation. Distributed leadership, which encourages responsibility sharing and capacity building (Harris, 2004), is highly related to effective mentor–mentee partnership (Hudson, 2013). Effective mentoring can inspire leadership in others (John, 2008). Hudson (2013) demonstrates a strong relationship between mentoring and inspirational leadership. For example, this study shows that inspirational attributes and practices such as attentive listening and appreciating individual achievements can help school leaders and mentors

to inspire others in the school to achieve organisational goals. As a signature pedagogy, distributed leadership focuses on mutual development and emphasises the importance of positive mentor–mentee collaborative relationships.

Encourage experiential learning

In addition to distributed leadership, school leaders foster effective mentoring by encouraging *experiential and reflective learning* during the mentoring process. Mentors are supported to guide mentees to reflect on and learn from their real-world experiences (Watson et al., 2023). This approach is grounded in Kolb's experiential learning theory, which emphasises effective learning through a cyclical process and reflective cycle of action, reflection, conceptualisation and experimentation (Kolb and Fry, 1975). Evidence from our research project shows that school leaders play a pivotal role in creating the essential 'paths' of influence in their organisations – that is, professional learning opportunities, workload conditions and collaborative school cultures – which shape an organisational environment that encourages and supports mentors to provide developmental teaching observations and feedback to their early career mentees (Leithwood et al., 2024). Through reflective and constructive mentor–mentee dialogue, mentors guide, challenge and facilitate their mentees to critically apply new ideas to their teaching practice, and to develop deeper understandings of their role as a teacher. With this, the mentoring process is itself a reflective journey of 'learning-by-doing' for mentors.

Improve emotional intelligence

A third leadership practice associated with developing effective mentors is to help develop their emotional intelligence (Chun et al., 2010). As mentoring can be 'the most intense and powerful one-on-one developmental relationship, entailing the most influence, identification, and emotional involvement' (Wanberg et al., 2003, p. 41), emotional intelligence – the ability to effectively use one's emotional information to guide behaviour – can be beneficial, because mentoring relationships involve trust and care, as well as the tension between autonomy and differences in status (Kram and Cherniss, 2001; Mayer and Salovey, 1997). There is a positive relationship between mentors' emotional intelligence and the degree of confidence a mentee has in them, as well as mentee learning, job satisfaction and other positive attitudes (Chun et al., 2010). Leadership practices designed to help develop mentors' emotional intelligence include being emotionally available to mentors and helping mentors create a supportive learning environment for their mentees.

Teach effective mentoring behaviours

Research evidence also suggests that school leaders who provide professional development and training for mentors help to equip mentors with the knowledge and skills to enable effective mentoring. Without such training, mentors tend to rely only on their previous experiences to provide mentee support (Jones, 2009). Mentors who have received mentoring education report that they are more confident in executing their role as mentors (Thornton, 2014). Professional development should help mentors improve their communication skills (Evertson and Smithey, 2000), enhance their professional identities (Hobson et al., 2009) and increase their willingness to develop and commit to teaching (Szyma□ska-Tworek, 2022). Arnsby et al. (2023) further show that teachers who received mentoring education are more likely to implement what they have learnt in their teaching and mentoring practice. Therefore, there is call for school leaders to prioritise and invest in professional development for teachers to become educated and effective mentors (Hudson, 2013).

Create a supportive mentoring culture

Literature further indicates that leaders creating a supportive and nurturing mentoring culture is important for the success of the school, which is a signature pedagogy of school leadership. For example, a lack of time and challenging schedules are often regarded as a major barrier to mentoring (Wilson et al., 2013). Leadership that ringfences time for mentoring and mentor development holds the key to enabling and embedding the culture of effective mentoring in schools (Gimbel and Kefor, 2018; Hayes, 2019; Reyes, 2003).

Developing mentors as the signature pedagogy of school leaders

To better understand how school leaders create and shape the organisational cultures and conditions that effectively develop mentors and ensure the effective mentoring of early career teachers, we employed Shulman's (2005) concept of signature pedagogies as a framework for this study. Shulman (2005) defined *signature pedagogies* as 'the types of teaching that organize the fundamental ways in which future practitioners are educated for their new profession' (p. 52). Signature pedagogies define *what* counts as knowledge and expertise in action and *how* those signature pedagogies are underpinned by dispositions and cultures of the field of teaching and learning and ultimately 'determine the architectural design of educational institutions' (p. 54). Shulman (2005) argues that the reason why signature pedagogies make a difference to how professionals behave is because they 'form habits of the mind, habits of the heart, and habits of the hand' (p. 59). 'Habits of the mind' refer to how professionals think; 'habits of the hand' refer to how professionals perform; and 'habits of the heart' refer to how professionals act with integrity (Shulman, 2005). Central to Shulman's argument is the need to look into forms of professional preparation to understand how and why professions develop as they do. By extension, we argue that to better understand how schools develop as they do, we need to know how school leaders create those structures and conditions that shape professional learning in ways that improve the capacities of school organisations. Mentoring, a signature pedagogy used by school leaders, is viewed by some as 'both an obligation and responsibility of leadership' (Kunich and Lester, 1999, p. 117). In this article, we build on, and extend, Shulman's (2005) theory of signature pedagogies, and we use it to analyse, interpret and make sense of leadership strategies that enable effective mentoring.

The conceptualisation of signature pedagogies centres on three dimensions: the *implicit dimension*, which comprises beliefs about professional attitudes, values and dispositions; the *deep dimension*, which entails assumptions about how best to impart a certain body of knowledge; and the *surface dimension*, which consists of concrete, operational acts of teaching and learning, of showing and demonstrating, of questioning and answering, and of interacting and withholding (Shulman, 2005). What appears to be unclear, though, is how the three dimensions relate to each other to explain the ways in which signature pedagogies are formed to shape the character of future practice, and to symbolise the values and hopes of the profession, and, in our case, the school. We have expanded the meaning of each dimension to reflect the conceptual and empirical knowledge about school leadership, organisational learning and school improvement. We have also imposed a conceptual order on the three dimensions, which, supported by evidence from our case studies (presented later in this article), recognises the centrality of moral and professional values in understanding leadership actions and practices, and the significance of social, technical and intellectual conditions – designed and created by school leaders – in enabling effective mentoring in school.

Methods

This four-year mixed methods study gathers quantitative and qualitative evidence on the impact of the ECF programme on participating early career teachers' and mentors' work engagement, well-being and retention trajectories over time. The study adopts a longitudinal design, which collects programme-level, school-level and individual-level data relating to teachers' and school leaders' experiences at school over a four-year period. The mixed methods include: *annual surveys* with both ECTs and mentors, comprising research-informed questions about their learning experiences with the ECF programme, school leadership and culture, and personal and professional dispositions; annual *semi-structured telephone interviews* with career-change mentors and ECTs; and *case studies* exploring teachers' and school leaders' use of programme learning in context. For more details on the measurement process and our instruments, as well as on the validity and reliability of the scales constructed, please see our published research reports (Gu et al., 2023; Leithwood et al., 2024). This longitudinal mixed-methods research design provides more nuanced understandings of the extent to which, and how, the ECF programme has contributed to teacher retention over time than a single-method research design would have achieved. For the purpose of this article, we draw on qualitative evidence from case studies of a subsample of 14 state schools in England. We have published quantitative evidence in our recent research reports (Gu et al., 2023; Leithwood et al., 2024).

Sampling

The case studies are designed to explore the variation in the work, lives and perceived effectiveness of ECTs and mentors over a four-year period. A particular purpose is to explore how school leaders create the optimal and positive organisational cultures and conditions that have enabled mentors to provide effective mentoring to ECTs. Given this, our sample is purposefully skewed towards good and better schools, and towards schools whose teachers and mentors reported positive learning experiences on ECF in the ECT and mentor surveys. Our sampling strategy considered a combination of school-level and individual-level factors, but it treated schools as the unit of analysis.

School level

- *Participation in ECF*: All invited schools have participants currently in, or having been through, the UCL-led ECF programme.
- *School performance*: The case study sample is purposefully skewed towards schools judged by the Office for Standards in Education, Children's Services and Skills (Ofsted) as 'Good' or 'Outstanding' (rating prior to September 2024).
- *Socio-economic disadvantage of student intake*: The proportion of students eligible for free school meals (FSM) has been used as a key indicator. The number of students eligible for FSM is higher than the national average in 6 out of 14 case study schools (based on Department for Education data in 2024, 24.6 per cent of all students are eligible for FSM).

Individual level

- We have oversampled schools in which mentors and ECTs reported positive (higher than average) mentoring experiences and school cultures in our surveys.

School visits took place between April and July 2024. Participants gave their consent for their interviews to be recorded, and ethical procedures required by the UCL IOE Research Ethics Committee were followed.

Source of evidence

In each case study school, we carried out individual and focus group interviews with a variety of stakeholders, including ECTs, mentors, senior leaders and school headteachers. Interviews with these mentors and headteachers enabled us to examine and triangulate evidence on leadership practices that were perceived by both parties to have helped develop mentors and effective mentoring in school. For the purpose of this article, we focus on interview evidence from 27 mentors and 15 headteachers (two schools with a joint headship structure) in the 14 sampled case study schools. The role that mentors hold in their schools clearly shows that they are a heterogeneous group, with various levels of responsibility that could influence their engagement with the mentoring role. Specifically, out of 27 mentors, 5 (18 per cent) were senior leaders (for example, deputy headteachers), 14 (52 per cent) were middle leaders (for example, heads of subjects) and 8 (30 per cent) were classroom teachers.

The interview questions explored in detail organisational cultures and conditions in the schools that develop, nurture and retain skilled mentors, and how these ensure the effective mentoring of their early career teachers. Our interview questions were designed in ways to be aligned with the line of inquiry in the quantitative strand. By doing this, the narratives gathered from the interviews helped to unpack in depth the observations from the surveys. We conducted thematically driven qualitative analysis of interview data (Miles and Huberman, 1984), informed by the literature review, as well as by the conceptual framework of our larger study (Leithwood et al., 2024). We analysed raw interview data by assigning codes to segments of text, followed by grouping them in themes using the conceptual framework of this research independently. As a next step, we built thematic matrices (Miles and Huberman, 1984) to organise data and identify relationships and patterns across cases, cross checking themes as a team to enhance the rigour of the analysis.

Results

In the remainder of this article, the case study evidence from our research is used to analyse the values, practices and actions of headteachers, and their impacts on effective mentoring in relation to each of the three dimensions of Shulman's signature pedagogies. Central to our analysis is a detailed examination of school leadership and its impact in shaping organisational conditions and professional learning in context. With this, the school is the unit of analysis. We recognise that headteachers are the designers of the organisational learning, and that mentors and ECTs are not only the recipients of the design, but, perhaps more importantly, also active agents whose behaviour and actions can (re)shape the characteristics and impacts of the headteachers' signature pedagogy for organisational learning.

We first present three key sets of beliefs, values and moral underpinnings of practice (that is, 'why') relating to research Sub-question 1, which headteachers have described as central to the signature pedagogy of their leadership: Valuing, supporting and investing in professional development of staff; Creating a culture of respect and care in the school; and Setting expectations and modelling professional practice. For the purposes of this article, we have then selected three cases to explicate and exemplify the three leadership pedagogies that were perceived by both mentors and headteachers in our case study research to have successfully nurtured effective mentoring in schools (that is, 'how' and 'what', relating to research Sub-question 2).

What drives leaders to invest in effective mentoring? The 'why' of leadership pedagogy

Valuing and investing in professional development of staff

Headteachers from all 14 schools emphasised the significance of investing in the professional development of staff. An important element was the allocation of funding and resources for participation in continuing professional development, as well as communication about the areas for development within the school. Jane, a headteacher of a large primary school serving socio-economically disadvantaged communities, highlighted that 'being able to grow staff to become the best that they can be' kept her motivated in her role. In her school, teachers developed in their careers by participating in opportunities such as the National Professional Qualifications (NPQs) for teachers and school leaders and school-based professional development. Likewise, Sarah, a headteacher of a secondary school serving highly socio-economically disadvantaged communities, stressed how the culture in her school, which was based on 'really open and honest dialogue', had allowed teachers to have a forum for professional development conversations: 'If staff need professional development in certain areas, there's an open culture where that dialogue can take place, and people can seek that development, or we can suggest that development.'

For Chris, headteacher of a large secondary school, the connection between offering professional development opportunities and teachers' improved engagement and enthusiasm in leading quality teaching underpinned his leadership vision and focus for the school. As he put it, 'it is obviously to the benefit of the school because these very, very strong teachers are teaching even better'.

Creating a culture of respect and care in the school

Headteachers in 10 of 14 schools emphasised the importance of prioritising building relationships in the school and creating a school culture of care and support among staff. In addition, an atmosphere of togetherness, collaboration and respect for the individual have been identified by headteachers in most of the schools. Mike, who led a large secondary school, explained that 'the most important job we've got is looking after the teachers, so they want to stay'. Likewise, Mary, a headteacher of a large secondary school serving socio-economically disadvantaged communities, highlighted the importance of relationships for a school and explained that 'we treat everybody with dignity and respect'. She also described her philosophy as a headteacher when it came to providing support, which was that of 'seeing people as individuals': 'My philosophy if somebody comes and asks me something, then it was important enough for them to do that. So therefore, I say yes, unless there's a really good reason to say no.'

Jack, who jointly led a secondary school serving high numbers of students from socio-economically disadvantaged backgrounds, highlighted the importance of surrounding themselves with staff members

who 'genuinely care' about teachers and students, and about education more generally. To create that school culture, he followed a 'humanistic approach' to looking after staff, and he focused on having school leaders who 'will be most instrumental in creating that culture, where actually people care about their colleagues'.

Setting expectations and modelling professional practice

Headteachers in seven schools focused on fostering professional dialogue among the staff, modelling professionalism and building a culture of practice in which staff were intrinsically motivated to improve their practice and felt confident to take risks and seek support without fear. Mary, a headteacher of a large secondary school serving socio-economically disadvantaged communities, explained how they were trying to get teachers to experiment more in their classrooms and to take risks. She was fully aware that to achieve this, teachers 'need to know that I trust them and that if they make a mistake, it's fine': 'Staff know I've got their backs, staff know if the chips are down, if something happens, I have their backs … People know that that's where I'm coming from. Take a risk. It doesn't matter if it doesn't work.'

In addition, some who were maintaining a connection to the classroom as a teaching head, and who were undertaking professional learning and development themselves, set the example for the staff and encouraged them to be committed to learning and improvement. Grace, who led a rural secondary school, explained that 'there is no member of the leadership team who is in a non-teaching role', including herself as the headteacher. In this way, they were integrated into the whole school, which was important for her because they 'model' the expectations and 'walk the walk'. Chris, the headteacher of a large secondary school, explained how important it was to treat teachers as professionals, since they were the 'most crucial asset and resource' for schools. To solve the teacher recruitment and retention crisis, he focused on investing in people as professionals:

> We're only going to solve that by attracting people into the profession, by treating it as the profession, by believing that it is a really, really good job and a really important job, and as those teachers join our schools to big up their professionalism. So, make certain that the people coming in are treated like they are professionals.

Leadership practices for effective mentoring: the 'how' and 'what' of leadership pedagogy

Leadership pedagogy 1: investing in a professional development pathway

The first example is from a mentor who developed his practice through his school's professional development programme, which in turn improved his mentoring support for ECTs.

The school context

> This school is an urban secondary school serving an above national average number of students from socio-economically disadvantaged backgrounds. It has increasing numbers of students with education and health-care plans. Recruitment has been more complex for the school in the last two years. The school has changed a lot over the years. In national inspection terms, the school went from an 'inadequate' to a 'requires improvement' Ofsted rating, and now it is a 'good' school. As the headteacher described it: 'the school went through real turbulence to put it mildly'. According to the mentor, the school has been on an 'enormous' journey, and the school results now reflect everything that the school has put in place over the last years. (School)

The headteacher perspective: embedding a pathway to grow staff

The school offered a professional development pathway for teachers, which was aimed at providing a structured programme of continued learning about pedagogy. The pathway began with initial teacher training and the ECF teacher induction programme, followed by a three-year professional development programme focusing on improving teaching pedagogies and raising high teaching standards in classrooms (hereafter referred to as the 'High Standards' programme). Building on that, teachers who

were seen by school leaders teaching to high standards or above were selected to undertake a one-year programme further developing them to become effective practitioners (the 'Impactful' programme). The vision of the pathway was for the school to be able to offer continuous professional development to teachers joining the school at different points in their careers and being able to continue to grow. One of the successes of the school, according to the headteacher, had been to create conditions for people to thrive:

> Jack had been a co-headteacher in the school for almost one year; before that, he was the deputy headteacher of the school. He became a co-headteacher after the former headteacher was promoted to another role within the trust. He described himself as always having a lot of responsibility for professional development and working a lot with trainee teachers in his career. (Headteacher)

For Jack, professional development was considered as a special characteristic of his school, which played an important part in enabling the staff to stay and grow. Over the past two years, recruitment had been more complex for the school. As Jack explained, recruiting teachers had not been as simple as it used to be. When the school was looking to replace teachers, they would no longer receive as many applications as they had in the past. Jack had also been meeting with the regional union representatives, as he was worried about recruitment.

Due to the complexities that the school was facing with recruitment, Jack felt that attracting people with the right calibre, and developing them, became a clear strategy for the school to address the teacher recruitment and retention challenge. For Jack, looking after people, both on a human level and in terms of their development, influenced staff stability and retention rates in the school. Thus, finding ways and allowing people to grow was key. As Jack put it, 'our professional development offer has been something that's been special … We've really tried to invest in those things.'

The school had a clear understanding about the gaps in externally provided, free continuing professional development (CPD) programmes (for example, ECF and NPQs). Jack understood the widely reported high risk of losing early career teachers after the two-year ECF induction programme, and he led the school to invest in a programme that would bridge the gap. The other reason for developing the programme was to meet the professional development needs of staff members who joined the school at different points in their career. He described it as 'a really big problem in the system'. The school then created a clear structure to ensure that there was a continuum of provision to support the professional learning and development needs of all teachers (with different years of experience, and with different roles and responsibilities in school):

> We really felt there was this enormous potential for it to be a gap in the middle and for people just to fall off the edge of that … Somebody might not join us as a trainee, they might not join us as an ECT, they might join us further through, but wherever they would join, they'd be on this pathway … In this school, you could train, you could be an ECT, you could carry on through [the 'High Standards'] programme, you can go on and do [the 'Impactful'] programme.

For Jack, it had been inspiring and motivating to see people develop in his school. Retention was a 'really big thing', and the school did a great deal to look after people. He felt that 'having that kind of continuity, and seeing people grow and thrive, it's just been amazing'. As an example, he talked about a senior leader in the school who started as a trainee, then over time progressed to become the head of a subject, and who was an assistant headteacher leading staff development at the time of the school visit.

The mentor perspective: thriving through the pathway

> Peter was a middle leader who had been in the school for 13 years. He had been a mentor for trainees for the last 8 years, and this was the first year he was a mentor for an ECT. He first joined the school as a volunteer, which was what gave him the understanding that teaching was the career he wanted. He completed his teacher training in the school, and he had been teaching there since then. (Mentor)

Peter pointed out that the school recognised early on that he had potential as a teacher, and he was constantly provided with various opportunities in terms of his development. Examples of the

opportunities included a leadership course run internally in the school, and receiving a teaching and learning responsibility (TLR) position, as well as being a mentor for trainees and an ECT. Describing these opportunities, he said, 'When I do these roles, it's because I feel valued.'

Reflecting on his experience as a mentor of an ECT, he felt that the school trusted him by assigning him this responsibility. Taking part in the mentoring programme in ECF had helped him to improve his own practice as a teacher in the classroom, especially through reading and having conversations with his mentee. Peter found the structured mentoring sessions most 'productive' and beneficial because there was no time wasted in his mentoring meetings. The structure and pace of these meetings allowed his mentee to discuss with him areas of practice on which he would like to focus, followed by a week of trial and implementation in the classroom, before meeting Peter again to reflect on his learning and progress. For example, using deep probing questions for learning and assessment was a key focus of their conversations for a couple of weeks, and he has now seen 'a big improvement' in the way the mentee started to plan for questions and misconceptions in his teaching:

> In terms of my development, being a mentor, it's definitely improved because I have to do prior reading, because I know that my ECT has done prior reading, and therefore I have to know exactly what we're talking about. So, I feel it improves my practice that I'm reading up on something.

The most valued professional learning experience for Peter was the completion of the 'Impactful' programme embedded in the professional development pathway of the school. Being selected by his school to undertake that programme showed 'how much they value me', and completing it had taken his teaching 'to another level'. His mentees had also benefited from his improved practice, since he was now able to offer, in his view, better and more constructive feedback to them:

> As I become better equipped and more skilled in terms of teaching, I feel, like, the last initial teacher trainee that we've had and the ECT, they feel the benefits of that as well, because, as my practice has significantly improved, I feel like I'm able to offer better feedback to those as well.

Peter was satisfied with the recognition from the school, and with the ways in which he had grown as a practitioner in the classroom and as a mentor. This enabled him to contribute to the wider professional development structure and culture in the school by nurturing and improving the practice of ECTs. He was content with this, and he decided to stay in his current role so that he could maintain the work–life balance that he enjoyed:

> I love my job. My work–life balance is the best it's ever been … I feel I can do my job incredibly well, completely enjoy everything at this moment in time.

Leadership pedagogy 2: building an open and trusting culture among the staff

The second example is about a mentor, as a career-changer, who came into teaching because he felt that he would be appreciated more in this role. He explained how he was able to learn from his colleagues as a new member of staff due to the school culture.

The school context

> This is an urban secondary school serving an above national average number of students from socio-economically disadvantaged backgrounds. A lot of students come from families with multigenerational unemployment and significant deprivation. It also serves an increasing number of students with special educational needs and disabilities. According to the headteacher, it is important for the school that students make progress in line with their peers and unlock opportunities for their future. In national inspection terms, this is an 'Outstanding' school. (School)

The headteacher perspective: leading an open-door culture in school

> Sarah had been a headteacher in the school for over a year. Before that, she was the deputy headteacher for seven years in the same school. She became a headteacher after the former headteacher was promoted to another role within the trust. She considered teaching to be the most important job in the world. (Headteacher)

For Sarah, much of the school's success resulted from having an open relationship with the staff. For the relationships to be strong, she highlighted the importance of having mutual respect embedded in the school culture: 'Relationships are really, really important to everything that we do … Every single person in the building does an absolutely vital role to the success of the whole school, and that's the culture that we try to instil.' Moreover, the school had an open-door policy that encouraged both the headteacher and the teachers to actively drop into each other's classrooms and collaborate. As Sarah explained, the informal conversations that resulted from her dropping into teachers' classrooms helped her to develop an open relationship with the staff:

> Popping into people's classrooms and not having a clipboard because you've got a checklist to see what they're doing, but walking around and speaking to the children, making sure you have that open and friendly relationship with all staff.

Sarah also highlighted that she wanted the staff to enjoy coming to work every day, knowing that 'they are part of something special and that they're making a difference'. She was keen to support them to refine their practice, and she would like to see them to be 'hungry to progress and succeed and make marginal gains':

> I always tell the staff that nobody's ever a finished article, so seeking support isn't a kind of fear factor thing, like it is in some schools, because it's something that we all have to do at different points in our careers, or even different points in our weeks sometimes.

The mentor perspective: growing as a teacher through mutual support and recognition

> Casey is a class teacher. At the time of the research, he was a new member of staff in the school, and he had previously worked in a corporate job. He came into teaching because he felt that people would appreciate him more in his role as a teacher than in his previous role. (Mentor)

Casey highlighted that the school's ethos was centred on helping each other: 'There's a lot of teamwork, people pulling together.' As a new member of staff in the school, such 'open-door' culture had helped him to improve his teaching practice through observing other teachers and learning good practice from them. He also felt that it was beneficial to be observed by his colleagues, and to hear about their feedback on his teaching, because they were not there to judge him:

> I'm so quick to go and ask somebody else about something, like I'm not sure how I'd go about teaching this. What would you think? Or people will pop in … and there's no judgement in that. No one thinks someone's telling me how to do this, it must mean I'm doing it wrong.

Casey also referred to the support he had received from his Head of Department, who 'essentially shaped me into the teacher I am today'. He always felt that he could approach his Head of Department and ask for advice. Compared with his previous corporate work environment, he especially valued the recognition of his hard work in this school:

> People want to highlight things that people have done that are superb ... if you put in the effort, you put in the work in those extra hours, it's noticed, and people are quick to say thank you for that.

Leadership pedagogy 3: mapping pathways for career progression

The third example is about a mentor whose engagement with the senior leadership team as part of her professional development cemented her goal to move into a senior leadership role.

The school context

> This school is a large-sized rural secondary school, with an Ofsted inspection rating of 'Good'. The school serves a below national average number of students from socio-economically disadvantaged backgrounds. It offers a wide range of extracurricular opportunities. Students in the school benefit from a broad range of subjects and high levels of pastoral care. The school has a high teacher retention rate. (School)

The headteacher perspective: engaging with the policy opportunity to grow staff

> Grace had been a headteacher in the school for one year. She joined the school 14 years ago in a leadership position, and she had changed various leadership roles since then. She wanted to be the headteacher in this school because she really enjoyed being able to make a difference with other senior leaders. (Headteacher)

Grace highlighted that the school had a culture of openness and opportunity, as evidenced by the fact that many staff chose to stay. There were opportunities for career progression in the school, which were 'outlined with clear pathways' following the continuum of professional learning and development through ECF and NPQs. Self-evaluation, as part of the appraisal cycle, was not only crucial for the professional development of staff; it also provided evidence for Grace to identify individual teachers' strengths and longer-term professional pursuits:

> Staff are given the opportunity to self-reflect, receive feedback from colleagues and a structure which allows us to address whole school priorities. But also, a structure that gives a focus to individual pursuits, that ambition.

Grace believed that fostering an open, supportive and collaborative school environment contributed to the impact of the ECF programme on the development of ECTs and mentors. She also emphasised the importance of identifying the right staff to take up the role of mentors: 'That's based on knowing our staff and knowing the competencies … staff who can take risks, make mistakes, and then improve and get regular feedback based on the framework.'

Grace appreciated the 'golden thread' of professional development from the ECF for early career teachers and mentors to the NPQs for specialist subject leaders, senior leaders and headship. Together they offered a clear pathway of professional learning and growth for her staff. She understood that even the best school leaders and teachers needed to recharge themselves as lifelong learners, and she was therefore keen for her school to be engaged with the policy opportunity, and to use it to grow all teachers and school leaders. With this, following on from the ECF, the NPQs provided the staff with a platform for further professional learning, development and reflection. Having the opportunity to participate in these programmes was perceived by staff as professional recognition, which was celebrated in the school.

The mentor perspective: growing through a bespoke programme of professional development

> Tina was a middle leader who had been teaching for 19 years, and who had always wanted to be a teacher. She had some inspirational teachers growing up who played a role in her decision. She was particularly interested in leading teaching and learning, and she aspired to be assistant headteacher in the future. (Mentor)

Tina reported that the school had been really good at working with her to think about what she wanted to do and how to improve. She described the school as 'very collaborative with a very approachable senior leadership team'. From the three schools that she had worked in during her career, this was in her view the most supportive in terms of her development. She was highly appreciative that the headteacher had organised a detailed, bespoke programme for her, covering one year, during which she was part of the school's senior leadership team as an associate senior leader. Tina described this professional learning experience as most 'beneficial' and 'valuable', because it allowed her to experience 'the inner workings of the team and to see what happens'. Such experience also cemented her goal and decision to move from middle leadership into senior leadership.

Discussion and conclusions

In this section, we focus on what we have learnt about leadership practices as signature pedagogies that successfully create effective mentoring in school.

Evidence presented in this article aligns with and confirms successful leadership practices that have already been identified in the literature. The concept of *practices* aims to acknowledge the situated and social context in which leadership is exercised, as well as the central nature of relationships in leadership work (Bryk et al., 2010; Leithwood, 2012). The four domains of leadership practices identified in the literature are: setting directions, building relationships and developing people, redesigning the organisation and improving the instructional programme. Leadership practices identified in our study add to the repertoire of these practices, which are considered to be connected to each other, rather than to be separate entities. Specifically, *setting directions* has been found to have effects on each of the three remaining leadership practices (Leithwood et al., 2020, 2024). Practices in this domain include giving staff a sense of overall purpose, helping staff to clarify the reasons for implementing school improvement initiatives and assisting staff in setting short-term goals for teaching and learning (Leithwood et al., 2024; Sun and Leithwood, 2015). *Building relationships and developing people* includes assessing staff development needs, providing support for the unique needs of individual staff, encouraging staff to consider new ideas for their work and modelling high levels of professional practice (Grissom et al., 2021; Leithwood, 2021; Leithwood et al., 2024). Both domains of practices align with 'Setting expectations and modelling professional practice' identified in this study, which includes creating a culture of staff wanting to improve and to seek support without fear, encouraging professional dialogue and supporting professionalism, as well as allowing teachers to take risks. A key defining aspect of principal leadership is 'fostering consistent values, expectations and standards, and through these, empowering and transforming staff capacities and organisational conditions to embrace change and improvement' (Day et al., 2024).

Redesigning the organisational practices includes developing an atmosphere of caring and trust among staff, encouraging collaborative work among staff, and ensuring carefully coordinated participation in decisions about school improvement (Leithwood et al., 2019, 2024). Such domain is confirmed by the leadership practice of 'Creating a culture of respect and care in the school', identified in this study, which includes building relationships in the school and creating a school culture of care and support among staff. Previous research shows that school culture is key to enabling effective professional learning and development in schools (Day and Gu, 2010; Johnson, 2019; Leithwood et al., 2007). *Improving the teaching and learning programme* practices include leaders providing teaching and professional development resources needed for teachers to improve their teaching, and encouragement to make creative uses of appropriate technologies to enhance teaching and learning (Landa et al., 2023; Leithwood et al., 2010, 2024). The identified practice 'valuing and investing in professional development of staff' aligns with improving the instructional programme, and it entails allocation of resources for participation in continuing professional development, as well as communication about the areas for development within the school.

School leaders' signature pedagogies, identified in this article, work in combination to create and sustain an organisational culture/environment that enables mentors, and, through them, ECTs, to learn, grow and thrive. By highlighting the interactions between the three layers, this article advances the application of the theory in the field of educational leadership.

Returning to the conceptualisation of signature pedagogies, evidence presented in this article shows the limitation of the theory itself in understanding what leaders do, and, importantly, what drives their leadership decisions and practices. Our data strongly suggest the need to investigate the *interactions* between the implicit, deep and surface elements of signature pedagogies to capture the nuances of educational and leadership practice in context.

The 'hidden' dimension reveals the values that underpin, drive and direct school leaders' actions and practices. Why some headteachers champion and foster the organisational value of effective mentoring while others do not reveals a great deal about their leadership dispositions, capabilities and vision. Ample research evidence shows that the provision of skilled mentors to early career teachers stands a good chance of ensuring teacher development and retention (for example, Marable and Raimondi, 2007; National Education Union, 2022). The 'know-how' dimension explains how leadership values are enacted in the organisation. It entails the organisational conditions, processes and environments that are created by headteachers to enable mentors to support their early career

colleagues' learning, and to improve their teaching practices, job satisfaction and wellbeing. The focal point of this dimension rests on leadership actions that create and sustain the necessary conditions which enable effective mentoring to bear fruit in the organisation. There is rich research evidence suggesting that effective mentoring depends on both the retention of skilled mentors in the school and the provision of conditions which allow mentors to develop and exercise those skills productively (Leithwood et al., 2024). The 'impact' dimension entails concrete accounts of mentors' and ECTs' mentoring experiences, and whether and how mentor–mentee interactions have improved ECTs' teaching practices and, by extension, the job satisfaction and wellbeing of both mentors and ECTs. What we observe in this dimension reveals senior leaders' value-driven commitment to professional learning in school (that is, the implicit dimension), and, as importantly, how they have managed to successfully enact their leadership values in context (that is, the deep dimension) to shape organisational learning and development.

Limitations and implications for future research

It is important to acknowledge the contextual boundaries within which the data in our study were collected and interpreted. Our findings are based on interviews with headteachers and mentors from 14 schools. Despite covering a wide range of contextual school characteristics, our findings are not generalisable to all schools, and they should be interpreted with this limitation in mind. In addition, as has already been mentioned, we draw on the voices of headteachers and mentors, using the school as the unit of analysis. In our wider project on teacher retention, we have also collected interview data from the early career teachers being mentored in those case study schools. Although these were not analysed for the purposes of the current article, they can be used in future analysis to shed more light on the connection between leadership practices, effective mentoring and early career teacher experiences. Finally, we acknowledge that the current project does not capture system-level voices (for example, policy stakeholders, local governance) that could provide further insight into sustainability and scalability. Further research could focus on including system-level thinking.

Implications for policy and practice

This article has presented case study evidence about leadership pedagogies that were perceived by headteachers and mentors to have successfully enhanced the mentoring culture in their schools. By investing in professional development pathways, building an open and trusting culture among the staff, and mapping pathways for career progression, it has been argued that headteachers created the cultures and conditions conducive to professional learning that mentors interpreted as beneficial for their own development, and for the development of their early career colleagues.

The following five recommendations have been previously highlighted (Leithwood et al., 2024) based on research evidence from our research project. Specifically, school leaders need to know staff members well, aim the school in meaningful directions, structure the school to encourage engagement of all stakeholders, shape the engagement of stakeholders to foster the development of the school's collective intelligence, and distribute leadership for pedagogical coaching. Building on these, our case study evidence shows that to grow mentors, and to improve the effectiveness of mentoring support for ECTs, school leaders need to further develop their signature pedagogies. First, school leaders need to provide professional learning and development opportunities for staff, and this needs to be sustainable. Second, school leaders need to encourage and help mentors to create a supportive learning environment for their mentees. This means that a culture of respect and care needs to be created in the school. Third, school leaders need not only to set expectations, but also to model professional practice for staff. This helps to motivate staff to improve their practice and to feel confidence in their own practice.

Despite the differences in national contexts, our research (UCL Centre for Educational Leadership, 2023) shows that the major political, professional, organisational and socio-economic factors that impact on teacher retention challenges are similar. Given this, the leadership signature pedagogies identified in this research are likely to have wider implications for schools and systems that continue to strive to improve the impact of mentoring on retaining talented and skilled mentors and their early career mentees.

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Declarations and conflicts of interest

Research ethics statement

The authors declare that research ethics approval for this article was provided by the UCL IOE Research Ethics Committee.

Consent for publication statement

The authors declare that research participants' informed consent to publication of findings – including photos, videos and any personal or identifiable information – was secured prior to publication.

Conflicts of interest statement

The authors declare no conflicts of interest with this work. All efforts to sufficiently anonymise the authors during peer review of this article have been made. The authors declare no further conflicts with this article.

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