Teaching and Teacher Education 154 (2025) 104874

Contents lists available at ScienceDirect

Teaching and Teacher Education

journal homepage: www.elsevier.com/locate/tate

Research paper

Developing environments for research engagement in English schools: *Re*-professionalising teachers' work

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ARTICLE INFO

Keywords:
Teachers' work
Research engagement
Teacher professionalism

ABSTRACT

This paper examines teachers' research engagement and its relationship to teacher professionalism in the English context, drawing on qualitative semi-structured interviews with early career and experienced teachers, and with middle and senior leaders in three comparative case study sites: a school with designated teacher-researcher positions; a school sponsored by a university; and a loose network of schools where research engagement is coordinated by a key teacher. Findings indicate that whilst teachers' research engagement is regarded as a critical component of school life across these sites, it has to be managed appropriately. Implications for the teaching profession from our findings are discussed.

1. Introduction

In many countries located in the Global North there has long been an interest in the ways in which teachers engage in and with research. This is evident in the work of Stenhouse (1981) in the UK, Kemmis and McTaggart (1992) in Australia and Cochran-Smith and Lytle (1999) in the US. In England, as elsewhere, there is an increasing interest in the ways in which teachers read, apply and conduct research in response to local problems (see for example: Brown and Flood (2018); Mayer and Mills (2021); Mills et al. (2021); OECD (2022); a 2015 Special Issue of the *Journal of Education for Teaching* (la Velle, 2015); and a research briefing from 2019 by the England-based Education Endowment Foundation (EEF), Walker et al., 2019). This increasing interest is not surprising given recent claims that so called "high performing education systems", like Finland (see Sahlberg, 2011), are often characterised by schools that value research and are staffed by teachers who are research engaged – constituting what Cain (2019, p. 49) refers to as "intelligent communities". A significant consequence of having educational institutions that are seen to be "intelligent communities" with research engaged teachers is that they are said to help ensure education systems are self-improving (BERA/RSA, 2013; OECD, 2022).

In order to create such self-improving and professional educational communities (Evetts, 2013; Sachs, 2016), the influential British Educational Research Association (BERA) and Royal Society for the Encouragement of the Arts (RSA) report (2013) argued that teachers will need to be both research literate and supported by their schools to be research-engaged (see White et al., 2020 for an expansion of this report in Australia). The more recent OECD report (2022) on *Who Cares about Using Education Research in Policy and Practice?* adds to this by highlighting the importance of a strategic leadership that enables research use and research (co-)production among educational practitioners. In this paper we examine three state-funded English schools' approaches to enabling such research engagement amongst their staff, looking at the diverse ways in which these approaches have taken shape, while also considering what this might mean for a teaching profession that is self-improving and mature.

This paper examines attempts to create research rich environments in three English schools to further teachers' research engagement. It then makes connections between these efforts and teacher professionalism. We would suggest that the lessons learnt from these schools have purchase beyond the English context. Drawing on Sachs' (2016) notion of teachers' research engagement being a characteristic of a "mature profession", we contend that it is important to understand the ways in which schools can create, and the barriers to such creation, environments where this form of professionalism can flourish. This is especially significant, if we hold a view, as we do, that teacher professionalism

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https://doi.org/10.1016/j.tate.2024.104874
Received 5 April 2024; Received in revised form 9 October 2024; Accepted 16 November 2024
Available online 24 November 2024
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involves, among other aspects, active engagement with and contribution to the historically accumulated body of knowledge in their professional field (Evans, 2008).

2. Research engagement and teacher professionalism

Teacher professionalism is both a contested (Mockler, 2022) and slippery (Goodwin, 2021) term. It can be used, for example, to monitor teachers' adherence to 'standards' and to following prescribed curricula and pedagogical practices. At the same time, it can also be used to advocate for the profession as one whereby teachers have a high degree of autonomy in determining the most appropriate pedagogical approaches to support the learning of the young people in their classrooms. Aligned with this latter view, we adopt a view of teacher professionalism here as one that encompasses a critical engagement with and contribution to the body of knowledge in their professional field (Evans, 2008), instead of a field that "needs to be told what to do as it has lost the capacity to determine a course of action for itself" (Ellis, 2011, p. 9). As a result of this view, we draw a distinction in this paper between being a "research-engaged" teacher, and the more problematic notion of "evidence-based" teaching reflected in the current policy context in England.

In 2014, the Department for Education (DfE) in England, commissioned an assessment of progress towards a system within which the "teaching profession improves practice through the rigorous use of robust evidence." (Coldwell et al., 2017). The DfE's tender further stated that:

"The ultimate test would be whether teachers could explain their choices and practice by referring to a robust evidence base and using logical argument and reasoning, rather than saying that they do it because Ofsted or the department has told them to. Within this, though, there must be appetite for innovation in order to further develop practice. Rather than this being unfettered development, innovation must be 'disciplined' in that it would build on existing knowledge of what works and why." (Coldwell et al., 2017, pp. 10-11).

Over the subsequent decade, educational policy in England has focused upon the discourse of 'rigorous and robust evidence around what works'. The assumption is that teachers are expected to implement others' research with limited opportunities to take account of local contexts, and the specific needs of individual pupils. Furthermore, this notion of teaching involves a limited understanding of research, entailing government-commissioned reviews (see, for example, Carter, 2015), data on exam performance, Ofsted (Office for Standards in Education, Children's Services and Skills) ratings, national data sets and Education Endowment Foundation's evaluations of school-based interventions. This kind of "evidence" is regularly interpreted as holding true in all contexts, with teaching regarded as a standardised practice that is measurable and for which teachers can be held accountable (Helgetun & Menter, 2020). Evetts (2013) has referred to this as "organisational professionalism": a form of professionalism that sees the teacher as a "technician" who is a competent implementer of "evidence-based practice", which, as noted by Hordern and Brooks (2023), currently grounds how research engagement is framed, for instance, by policies around the profession in England, such as the Initial Teacher Training Core Content Framework (CCF) (DfE, 2019a) and the Early Career Framework (ECF) (DfE, 2019b). Meanwhile, Lopes et al. (2023) and Chiang and Trezise (2021, p. 115) have more recently linked this to the notion of "neo-professionalism": "formed from the aggregation of personal ability, with its resultant professional performance and achievement, and a sense of responsibility to contribute to national development' with the focus of improving students' school results". If teachers are unable to demonstrate that their practice has produced these kinds of desired results based on "evidence", then they may well be deemed to have carried out the "evidence-based" (best) practice ineffectually, and hence failed as a professional to have met the required standards.

Therefore we, like others (e.g., Biesta, 2007, 2010; Lopes et al., 2023; Wrigley, 2018), are concerned about the implications of the "evidence-based teaching" agenda, with its consumerism logic (Freidson, 2001), for teacher professionalism. In our view, such discourses around evidence-based teaching reinforce other already powerful discourses working to de-professionalise teachers (e.g., external accountability-based systems, narrowing of scope and voices in teacher education programmes, including their curricula) and then (re-) construct their professionalism in a very narrow way as technicians. As recently noted by Acuña (2023, p. 2), drawing on previous work of Stephen Ball (2003) and Meg Maguire (2009):

> becoming a technician also involves a process of re-professionalisation, which means that teachers' work is increasingly organised by a diverse set of data and test-based accountability devices that are currently hegemonic in the field of the truth about what it means to be a good teacher.

This dominant approach to teachers' research engagement in England contrasts with views shaped by collegiality, trust, autonomy, commitment to the moral purposes of education and guided by codes of professional ethics (see, for example, Connell, 2009; Evans, 2008; Evetts, 2013; Lopes et al., 2023). Such a view of professionalism is one that Judyth Sachs (2016, p. 422) characterises as a "mature profession", with strong links to a more nuanced and critical view of the place of research in such a profession:

> There are two important dimensions underpinning a mature profession; first (…) teachers possess skills as producers and consumers of research; second, members of the profession must establish trust among and between various stakeholders and constituencies and be prepared to take risks in shifting boundaries that can act as impediments to change.

For Sachs (2016), an important capability for teachers within a mature profession is research literacy, which requires teachers to be in an environment that encourages a more consistent and critical kind of research engagement, instead of simply being consumers of research evidence. In Sachs's approach to teacher professionalism, teachers must be both critical consumers and the producers of research for others' critical consumption. Through the development of research literacy, teachers are able to scrutinise research findings and only then apply those to their own contexts, tweaking, reformulating and reworking conclusions and implications to shape their own practice (OECD, 2022). White (2021) similarly regards teachers as being able to exercise their professionalism through research engagement, enabling them to respond to "the very diverse needs of their students and contexts" (p. 60). She calls for a more inclusive understanding of research and researchers to encompass research-engaged and research-active teachers. In addition, as indicated by the BERA/RSA report (2013), the development of research literacy enables teachers to use their critical skills to become involved with the production of research to shape their own research projects.

Therefore, we argue that supporting teachers to become both critical consumers and producers of research enhances more active, collegial and autonomous forms of teacher professionalism. This movement towards teachers becoming more research-literate and resistant to their de-professionalisation as "technicians" can help reshape what it means to be a teacher in schools today (Sachs, 2016). For example, Leat et al. (2014) argued that teachers' engagement with research reminded those teachers of their intellectual capacities that had been stunted by much of the new evidence-based agendas in education; helped them build enhanced relationships amongst colleagues in a school; gave them a voice in important decisions affecting their classrooms; and helped them solve problems they were facing in either the classroom or beyond.

Kowalczuk-Walędziak and Ion (2024) suggest, through extensive review of literature, that there remains limited consensus around how teachers' research-engagement is defined. Some definitions focus on teachers' engagement *in* conducting research, whereas others focus on

teachers engaging *with* research through reading and selecting innovations and practices that are linked to research evidence. As outlined, we follow others (Sachs, 2016; BERA/RSA, 2013) in arguing that research literacy involves capacity to engage both in and with research. This exceeds the role of teachers implied by the narrative of "evidence-based teaching" in England. By arguing for broader forms of professionalism and advocating for self-improving education systems, we also situate the research literacy of an individual teacher within the relational, material and political contexts in which they work. As such, our focus on "research engagement" within this paper is broadly construed to include individual teachers' research literacy and motivations, but to also recognise the ways in which schools and education systems can approach and support engagement with research. As both the BERA/RSA (2013) and OECD (2022) reports noted, context and environments matter: research engagement can only prosper beyond a technicist view in contexts where there is support for creating a research-rich school by senior administrators. The notion of "research-rich" in the BERA/RSA report, for instance, refers to environments where research thrives, and where "schools and colleges encourage innovation, creativity and enquiry-based practice, enabling teachers and leaders to drive change, rather than have it 'done' to them" (2013, p. 40). Godfrey (2017, P.439), also referencing the BERA/RSA report, suggests that such schools "promote spaces for collaborative learning that allow for knowledge creation linked to the needs of the pupils and around explicit ideas about learning and its intended outcomes". Leat et al. (2014) note, however, that where research is expected but there is a lack of support, engaging with/in it can be seen by teachers as a burden, as already argued in 1981 by Stenhouse in relation to England:

> The most serious impediment to the development of teachers as researchers (…) is quite simply shortage of time. In this country teachers teach too much. So research by teachers is a minority activity, commonly stimulated and supported by formal degree structures as master's and doctoral level, or by participation in a research project with the teacher-research concept built in. In rare persons the interest and activity is sustained (…) Much clearly needs to be done to ameliorate the burdens of the teacher prepared to embark on a programme of research and development (p. 111).

This paper draws on interview data collected as part of research conducted in three case study sites: a school with designated teacher-researcher positions; a school sponsored by a university where there is a commitment to research; and a network of schools where research is coordinated by a single teacher. We compare these three different approaches to research engagement, drawing attention to the ways in which three very different sets of practice contributed to teachers' research engagement. While the data from these schools highlight the potential of research engagement to teachers' re-professionalisation, they also reveal some of the challenges school leaders and individual teachers face in attempting to develop such research-rich environments.

3. Methodology and methods

Within the landscape of teachers' research engagement outlined above, this study was interested in the way in which schools were endeavouring to become "research rich" (BERA/RSA, 2013). Our research questions focused on the different ways they were responding to exhortations to become more research engaged, and the impact of these efforts on teacher professionalism. The project was thus guided by the following questions.

1. What are teachers' views on the use of research as part of their professional activity?
2. How is research used within schools?
3. What are the opportunities and barriers around teacher-researcher collaboration?

The larger project from which the data for this paper are drawn included a survey (see Mills et al., 2021), and three comparative case studies. We focus here on the interview data from the case studies and data that made connections between research engagement and teacher professionalism.

3.1. *Research sites and study design*

Drawing upon existing relationships, requests through social media and our own networks, we selected three different state schools in England. Criteria for selection were that they were state (government-funded) schools, were in different parts of the country, had a strong focus on teacher-based research and exhibited different approaches to such research, thereby enabling comparisons. The schools are referred to by pseudonyms, each with their own approach to enhancing research-engagement amongst their staff. In order to understand the ways in which these models developed and worked, and to determine their strengths and weaknesses, we utilised a case study approach with each school representing a "case" (Yin, 2018).

- North School had created designated research positions in the school. At the time of the study, they had made four external appointments to take up these positions. A key driver for this innovation was originally to address the difficulty of teacher recruitment.
- At Central School, a teacher had taken on the role of research lead to coordinate research across a network of schools. A key factor driving the research agenda in this school was the maintenance of a research journal.
- City School was an academy (state funded schools that are independent from local authorities and have many "freedoms" not available to non-academies) sponsored by a university, and as a condition of employment at the school, teachers were expected to engage in research. The sponsorship by the university was key to driving the research agenda at the school.

North School, with a pupil population of approximately 2000, was a state-funded secondary Catholic school in a city in the North of England. The idea of employing Action Research Leads (ARLs) in mathematics, science and English appears to have developed from a restructure of staffing and local challenges in recruitment of teachers. These positions had been advertised externally and all were filled by teachers new to the school. At the time of our first visit, they only had two ARLs (Joanna in science, and John in mathematics)[1] and by the time of our last visit, approximately a year later, they had a further mathematics ARL (Walter) and one in English (Julie). The school was also planning to appoint another science ARL. The ARLs were all teachers and did not participate in school management. North School was visited on three occasions over a period of approximately a year during which the deputy head (Patrick) and the four Action Research Leads (ARL) were interviewed. Our intention was to try to develop an understanding of the way in which the role worked and its impact on these teachers' sense of professionalism.

Central School is an all-through (primary and secondary) school and part of a teaching school partnership hub which offers initial teacher education both via the secondary and primary routes into teaching, professional development, support and research opportunities to schools in the region. The key informant was Mala, the school's Research and Development lead. The partnership prides itself on producing a "very informative and relevant" research journal, edited by Mala. The journal's focus is on publishing and sharing teachers' classroom practice and research, and Mala was allocated 1 h a week for her research lead role. Central School was visited three times by two researchers, in which Mala was formally interviewed once, and then re-interviewed at the end of the project on the telephone. Additionally, two classroom teachers were

[1] All individual names used across this paper are pseudonyms/fictional.

interviewed about their experiences of working with Mala as a research lead: Julia, a newly qualified teacher of history and politics; and Alison, who had been at Central School for 13 years, had previously occupied Mala's role, and taught history.

City school was originally conceived of as an innovative state school sponsored by a university, and it opened in the early 2010s with research at the heart of its original design. The school's weekly bulletin passes on summaries of recent research, and some staff publish journal articles on their research and attend research conferences. City School was visited on two occasions over a period of four months and in our first visit we interviewed the school's Principal (Russell). During our second visit, we interviewed the Assistant Principal for Teaching and Learning, Emma, who led teachers' professional development, including research practices, and four teachers: Anna (History and Politics teacher with one year of teaching experience), Clare (English teacher with four years of teaching experience), Margaret (Literacy Specialist and English teacher with more than 20 years of teaching experience) and Robert (Geography teacher with 12 years of teaching experience).

3.2. Data collection

To build our cases, we conducted semi-structured interviews with key players in each school[2] and collected documents including professional journals publishing the research done by participants from these selected case studies, job descriptions, and official documents about the school and the place of research in them. This paper draws principally on interview data, with these interviews constructed around a set of questions that addressed the following points: participants' backgrounds and their current roles; their interests in research, the conduct of research in their settings and their role in that; the challenges and opportunities associated with their roles; and their understandings of what constituted a "research rich" environment. The interview schedule, however, was primarily used to initiate a "conversation with a purpose" (Hodgson, 1987), rather than following a strict format. Interviews were audio-recorded and professionally transcribed, and subsequently coded and thematically analysed jointly by the members of the research team (Braun & Clarke, 2022).

3.3. Data analysis

In particular, coding was undertaken in two stages as suggested by Saldaña (2021). First, a version of "structural coding" of more deductive nature was employed in order to categorise the data from each individual interview, guided by questions used to frame the semi-structured interviews, such as on the structural areas of "approaches to engaging with research", "place of research in professional roles", "factors limiting research engagement", etc. This deductive task was undertaken by the research fellow on the project. In line with our questions related to identifying the diversity of approaches, views, roles, and challenges and opportunities in each site, the purpose of this task was to identify when these particular ideas ("deductive categories") were being discussed in the text/transcripts. Once we identified in this first round of deductive coding where these structural ideas were being discussed, we inductively analysed these ideas internally. The purpose of this was to determine what types of research engagement were emerging from the data. We did not have an expected framework but wanted to develop specific insights into the emergent meanings around each of the "deductive categories" within the three case study sites. This analytical process was completed by a cross-participant and then cross-case thematic analysis of these emergent meanings under the resulting three themes related to the participants' views and experiences around research engagement in the case study schools.

4. Results: research rich schools, approaches to research and workload

The three themes that we focus on below are: building research rich schools; the diversity of approaches to undertaking research; and the impact of research engagement on teacher workload. The first theme illustrates the types of commitment demonstrated by school leadership in building a research rich school, with two of the schools' approaches to teacher research seeming to be much more supported by the leadership than the third. We then explore the ways in which the different forms of teacher research had emerged at each school. One school had a focus on action research driven by research leads, within another school there was an expectation that all teachers engage in research as a form of professional learning, while at the third the focus was very much on the dissemination of research through a professional journal. Following on from our presentation of these themes we outline the ways in they impact upon the development of teaching as a "mature profession" (Sachs, 2016).

4.1. Building research-rich schools

Writing about teachers' professionalism, Sachs (2016, p. 424) argues that there is a need for "discursive spaces whereby a more collaborative or research-engaged teaching profession could develop and thrive, thereby ensuing schools become 'research rich'". Senior leaders at both North School and City School expressed this desire to build a research-rich school. At North School, for instance, this was done by having key personnel (ARLs) as dedicated research leads and, at City School, by developing depth of research capabilities across the whole school. On the other hand, Central School did not appear to have the same support from the leadership team, as we further explore below.

The intention at North School, as John indicated, was to ensure that research was "embedded and a priority as opposed to an add-on that might sometimes get shunted for other bits". The ARLs were expected to carry out a range of activities and had the full support of the Senior Leadership Team to do so. For example, they could lead projects into the most effective teaching methods in their subject areas; develop teaching provision across their subject areas; encourage and support the action research of other colleagues; collaborate with senior colleagues in their subject areas; work in partnership with each other; liaise with the local university; present their action research at professional learning events; and publish in the school's own internal journal. As Joanna indicated, this role was unlikely to be successful "unless you've got people at the top supporting you and saying, 'Yes, this is worth you spending time on'" and trust was evident in that the leadership team there had "not been particularly prescriptive about what we do with our time or how we do it" (Joanna). Joanna also indicated how important the space in her timetable was for reading – and what she saw as paying her back "for the meetings that I have to attend after school or in the evenings or whatever". She also went on to say how "valued" they felt with the allocated time for research: "Even though they can't do it monetarily, we kind of feel, like, valued enough, and that this role is important. It's not just given 2 h a week."

The position of ARL in this school was then a desirable one: the people in the role were given a Teaching and Learning Responsibility allowance (approximately £3000 per year at the time of this study) and had 35% of their timetable allocated to research. The school was also supporting them to obtain a National Professional Qualification for Middle Leadership (DfE, 2014). Patrick, a deputy head, suggested that the position had served a dual purpose in enabling them to fill a vacancy for a mathematics teacher: a previous attempt to recruit had yielded no applications, but they received eight applications for the first ARL post in mathematics. The ARL roles were seen as temporary – funded for

[2] Research was conducted according to the ethical guidelines of BERA (2018), and ethical approval was granted by the Research Ethics Committee at [redacted for blind review]. This included gaining informed consent from individual interviewees.

three years in each case – with the assumption that postholders would then move on to other promoted posts within the school or elsewhere. While those employed in these positions had the key responsibility for undertaking research at the school, there was an expectation that other teachers would also be involved, as Patrick commented: “the idea is, *my* idea anyway, is that this research could be an infectious thing”.

At the time of our visits to City School, a process for recruiting staff to drive research across the school was underway. There were also considerations being given to making joint appointments with a local university and the Assistant Principal for Teaching and Learning (APTL), Emma, had been allocated the responsibility of stimulating and organising research practices within the school. Nevertheless, this school’s principal, Russell, indicated that there was an expectation that all teachers were engaged in research, not just people in designated research positions. He stated that: “You want it to be normal for a teacher to have a chat with the researcher as opposed to the one teacher out of 100 that everyone goes, ‘They’re the one that does research’”. As such, teachers could request time to do or deploy research if they made a case for it. Russell argued that research engagement was a school principle and value and led to teachers being “reflective practitioners”. He explained that it was part of the “systems and structures” and “culture” of the school, further expanding on it seen in the extract below:

> In the paperwork, in the bumph when you come here, if you sat down in an interview with me and said, "I don’t really believe in research. It’s just about getting on with teaching some lessons," I’d say, "Okay, if you’re here, you’re going to have to be engaged in research."

However, there were concerns expressed about the integration of research across the whole of City School: many teachers, for instance, were finding it difficult to balance these expected responsibilities with the day to day demands of regular classroom teaching, which indicates challenges to building a rich environment when teachers face other – and perhaps more dominating – priorities (e.g., marking deadlines, pastoral support). We come back to these potential tensions and challenges later in the paper.

We were not able to secure an interview with a senior leader at Central School, and there did not seem to be the same commitment to building a research-rich school amongst this leadership team when compared to the other two case study schools. What was clear from our interviews with Mala, the school’s Research and Development lead, was that balancing this work with her own teaching responsibilities, without a necessarily research-rich environment built around her, meant that she worked as a research lead in “isolation”. When asked what would make the role more sustainable, she replied:

> I think my first thing would be to give them [other teachers at school] access to existing leads such as other networks because I think it’s really important to have time on your timetable where you are able to go and meet other people, to build some networks. (…) The second thing would be to give them a fair timetable in which they can still be a teacher and be practising but also be able to engage in research in some capacity and to be able to write research.

Despite differences in approaches outlined above, findings across these three case study sites point to a common thread around teachers’ research engagement: the need for senior leadership commitment to building a research rich environment in their schools no matter the model adopted for promoting such engagement among the school community, a key element also recently identified by the OECD report (2022) mentioned earlier. We would suggest that there has to be a shared understanding of the value of research, and in particular of teacher-led research, by senior leaders in schools in order for a research-rich environment to develop in the ways in which Sachs (2016) suggests: where teachers are supported, as part of their expected professional practice and standing, to be both critical consumers and producers of research. Nevertheless, this shared understanding does not mean a one-size-fits-all approach to research engagement within communities: as we saw across our case studies. There is a wide variety of ways in which teachers can become research engaged, and such diversity is explored in the next section.

4.2. *Diversity of research engagement*

In their view of research engagement, North School had (somewhat arbitrarily) made the decision that their focus would be on action research, as Patrick (Deputy Head) explained:

> We put the word ‘action’ (…) we thought about taking that out. But we left it in because we thought, “Well, then they can *do* action research, and that’s what we’d *like* them to do – try something out.” (…) and then if somebody wants to say, “Well, I’ll do a different kind of research,” that’s fine as well. But we left it in there, sort of, under the title. But that doesn’t mean it’s limited to that.

Action research has a long history in education[3] (Carr & Kemmis, 1986) and is closely aligned with the notions of “insider” or “teacher research” (Cain, 2019) focused on local issues. It has been associated with enhancing teachers’ confidence in their decision-making, enriching their sense of professionalism and with improvements in attitudes to educational research (Lambirth & Cabral, 2017; Ross & Bruce, 2012). And in terms of its scope at North School, all ARLs interviewed indicated that they were supportive of research that addressed either classroom activities or broader educational issues, as indicated by the topics researched by the teachers at the school, such as effective feedback and workload. As John stated:

> My current big focus is the marking and feedback. So, it’s something that anywhere you go, any school you go to, teachers will always say, "Marking, marking." There’s a huge thing about workload. It’s something that was put to me, "Okay, can we look at how, if it has to be done, make it more purposeful and meaningful?"

These ARLs at North School were also expected to collaborate with and learn from each other, as Patrick noted:

> So that if they are doing something in science and it seems to be working, then maths would go and have a look and say, “Ah, well, that looks good. Whether we can adapt that or try that”. And the idea is to develop [reading from the role profile], I’ve put here: “to develop outstanding teaching provision across the STEM subjects”.

Thus, at North School, the aim of research did seem to be being driven by the interests of the ARLs and what they perceived to be the concerns of other teachers in the school. The two newer appointees had yet to generate much research, although they were making use of research in delivering professional development to colleagues. This raises the question about the nature – and implementation – of a view of research engagement solely based on action research and which seems to be essentially driven by needs identified by the research leads.

At City School, the whole staff were given greater freedom – in relation to topics and methodological designs – to develop their own projects than at North School, but were expected to develop research pieces that would eventually be made public. The development of these pieces would be supported through six weekly continuing professional learning (CPL) sessions grounded on a professional learning community (PLC) perspective (Stoll et al., 2006, p. 223), that is, on building a “group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth promoting way”. With the support of their close relationship with a local university, this PLC was built around bringing together the expertise of doctoral students and university academics in areas related to education,

[3] There is, for instance, an academic journal specifically dedicated to the topic: *Educational Action Research;* see: https://www.tandfonline.com/toc/reac20/current.

research methodologies and beyond (e.g., curricular subject-specific expertise) and the professional expertise and knowledge from City School teachers in order "to support our staff in doing a proper piece of research" (Russell). Emma, the APTL, detailed how their CPL sessions grounded in such a PLC perspective integrated research through year-long "professional inquiries" into the programme. Teachers were expected to select an area of research that was then to be undertaken in relation to their own practices and realities and then, with the support of the wider PLC, devise strategies to critically interrogate their practices. She said of this programme:

> What I want them to do is feel empowered to be able to look at research critically, I suppose, so that's a key aspect of it and that's something to do with the professional inquiries as well, teaching teachers how to look at it critically and what's right for them.

This approach outlined by Emma also resonates strongly with Sachs's (2016, p. 423) call for teachers to engage with professional learning that is "inquiry oriented, personal and sustained, individual and collaborative" and central to building teachers' professionalism. Russell indicated that, for example, a staff member might decide to examine boys' engagement with drama and to consider the ethnic differences in this engagement. Other staff indicated some of the projects that they were working on, and which included employing a variety of research designs (e.g., action research, case study, survey design, etc.) to examine: student behaviour and positive reinforcement (Clare); curriculum development and interdisciplinarity (Robert); literacy catch-up (Margaret); and video-resources in history classes (Anna). However, the viability of such arrangements around building and sustaining a PLC also composed of university-based researchers needs further consideration, particularly in relation to: the scale in which such approach to teachers' research engagement can be promoted, considering the number of university staff to be recruited for such PLCs across a sizable number of schools across the country; and complex and fractious political landscape in relation to university-school relationships across countries like England, where recent educational policies - e.g., England's *Initial Teacher Training Market Review* (DfE, 2021) - have been more centred on removing teacher education and professional development from the Higher Education sector than on promoting such kinds of collaborations (Brooks & Perryman, 2024; Ellis & Childs, 2023; Murtagh & Rushton, 2023).

At both North and City schools, research activities were seen as important vehicles for continuing professional development (CPD) and teacher learning. However, in neither school was this the sole mode of delivery for CPD. During the period of our research a significant number of teachers at North School were engaged in a professional development programme, delivered by a national provider of training for teachers and leaders, while at City school Emma described the school's "CPL library" and a programme for subject leaders on curriculum development. Research was in both schools seen as a valuable component of CPD but not the only approach.

At Central School, Mala was the key driver of research both at the school and across the network, as outlined in the previous section. She saw her role as editing the practitioners' journal and using it to disseminate others' research, with a focus on dissemination of research for consumption, but which she positioned as also intrinsically linked to facilitating other teachers' own research production for subsequent dissemination. For Mala, the journal was then intended to help document the "research journeys" of the teachers, and her role as a research lead was to work with them throughout their research engagement "to make it as easy and accessible as possible (…) in manageable, bite sized chunks, that is easy for them in the grand scheme of their teaching workload".

Stenhouse (1981) argued that investigations by teachers only became research once their findings were made public, since making research public ensures that there is a critical engagement with it which facilitates its productive use in classrooms, schools and communities. The making of research public was evident in all the case study schools in this project: while North and City tended to do this through their own newsletters, CPD events for their own and other staff, and attendance and presentation at conferences, at Central School this was primarily done through utilising the journal and development of CPD sessions to disseminate findings. Alison at Central School, for example, explained how she and another teacher were often engaged in disseminating their research around verbal feedback, twilight evenings and articles.

Across the three sites, educational research was then being both critically consumed and produced. Teachers had the opportunity to conduct their own projects, ask their own questions, seek support and collaborations and to have the outcomes of their research disseminated and held to account. However, the degrees to which these all occurred differed: while City School seemed more driven by senior members of staff, and North School's research agenda appeared to be largely left in the hands of the ARLs and the teachers they worked with, opportunities for being involved in research existed and appeared to be taken up by teachers in both schools, which we largely attribute to it being a product of the schools' research-rich environment. Mala's successes with teachers in her own environment at Central School, however, was largely dependent upon their own levels of commitment and willingness to take on extra work within a less-developed and supported, by the senior leadership, research-rich environment.

4.3. Managing workload

Given the many competing priorities faced by teachers, ensuring that acceptable workload levels existed was an important feature of the research engagement work done at all participant schools. One of the workload issues that had to be confronted at North School according to Joanna (ARL) was, for example, differentiating between those who felt under pressure to engage with research, and those who wanted to do so in order to improve their own teaching. She went on to describe how she worked along those "fine line(s)":

> It's that fine line, isn't it, between who's going to be on board if they give them a little shove, and who's never going to be on board. And also how much extra time and effort it's going to be. And I think that's the sell is that this will not be any more effort, that I will help you and that I will do some guidance for you.

Also at North School, John talked about how ensuring people remained committed to research projects meant that teachers had to have a sense of owning the research and had to have their expectations managed: "At the start of the process, we kind of talked through what data we might be collecting to do this and we kind of went along the lines of actually, 'let's just go small and focused'". As John described, it became apparent that a key aspect of the ARL role at North School was not only as research facilitators, but also as mentors expected to care for the well-being of staff.

In addition, in order to obtain other teachers' buy-in for the school's focus on research, material support was also offered by North School: the timetables of all teachers were reduced by 3 h per fortnight, and while it was recognised that it was a minimal incentive, as one senior leader stated: "But they *have* got that extra 3 h. It's only 3 h a fortnight, but it's a gesture, anyway". It is then clear that addressing workload for research engagement also has financial consequences for schools, many of which already feel financially stretched, and research potentially requires additional resources beyond those required for teaching.

Workload was also of particular concern at Central School, especially in relation to the less-supportive research-rich environment. Mala demonstrated a sense of care for other staff in terms of the commitments they could make to research given the other pressures they faced, such as "marking, getting your lessons planned and prepped", which meant that there were limited contributions from the school to the journal. Thus, in order to do her job, she had had "to push past that barrier", essentially "all of this is in my time, half-terms, after school, etc." This was due in

part because she was allocated only 1 h per week to carry out that job, but also because "teachers don't have time within the school's working day to meet with me".

There were also issues for Mala's own workload at Central School. While she did not complain about the time commitment that she was making for the role, it was obvious to us that much of her free time outside of school was taken up with tasks related to the position that went beyond the official time she had been allocated for such a role. Indeed, Alison, who had been a research lead for two years before Mala at the school, said she "felt it was a massive job and I didn't get any time on my timetable for it", as well as that "the pay was not enough, in my opinion, for the role that it is".

The headteacher at City School, Russell, was also aware of ebbs and flows in research engagement brought about by workload pressures, indicating that to ensure that research was supported, the school had set aside time for research:

> I do want them to get their marking done. I do want them to plan really good lessons. I would love them to do some research. But I think the biggest challenge is balancing it out. That's why I think the protected time is pragmatic but committed.

However, creating "protected time" was not felt to be sufficient for some teachers at the school. For example, Anna was reluctant to engage with research because she saw it as outside of what can be reasonably expected in the time teachers have available: "I think that you can engage in research and you can make it influential practice, but you have to be willing for your bedtime reading to be about schools which I personally don't want it to be." This does not mean that she was not interested in research; indeed, she noted how when she had been preparing to become a teacher, she had been excited about implementing research ideas. However, for her "the reality is just that once you're in the mix of it, it's such a full-on job and you're doing so many … There isn't enough time in the day to do your job, let alone have research that feeds into that".

Leadership is clearly important here, as reforms cannot survive if they are not supported by school leadership. In addition, school priorities often shift, for example, according to policy agendas and staff turnover, and leadership was found to be key in ensuring the sustainability of research cultures within a school across those shifts. Russell at City School, for instance, noted how within the school they had sought to address challenges around priority changes and sustainability by "inculcating a culture of reflective practitioners". On this challenge, he then went on to explain:

> It's about building it into the culture because we haven't got the same staff body we had four years ago. You've got new teachers coming in and out. Then you've got new changes to leadership. You could let some things drift. Some schools have an amazing year of research engagement because the assistant head loves research. They've driven it for a year. But a year later that assistant head has gone somewhere else, and you haven't got somebody in the school that believes in it or champions it so the school moves on. Whereas what we want to try and do, and it ebbs and flows, what you want to try and do is actually that's just part of the culture of the school. We are research engaged.

A key component of sustainability is, as indicated above, the level of commitment demonstrated by senior leadership teams and willingness to back this up materially. Senior leaders at North School, for instance, spoke on several occasions about problems with the school budget and the need for care with their finances. However, this team saw the sustainability of their research positions as a priority, as Patrick indicated: "It is expensive. But we think that that's good value because, in the long-term and we are looking to the long-term here, and not just a short, quick fix – something which is sustainable". On the other hand, it was evident to us that the success of the role at Central School was all down to the commitment of Mala, and that it was unlikely to be sustained once/if she moved on. Should she decide to leave the school its research culture could very well disappear with her.

5. Discussion: Towards a re-professionalising of teaching

Our research across three case study schools in England suggests that developing capacity for research engagement requires teachers and senior leaders to see the benefit of such engagement for the school. This corresponds with other studies conducted in England, for example those by Brown and Zhang (2016) and Coldwell et al. (2017). In contrast, Gaussel et al. (2021) suggest that teachers in France feel less encouraged to innovate by school leaders than their English counterparts, despite survey findings showing comparable perceptions of working in a trusting environment. This, Gaussel et al. suggest, may be due to the more limited role of principals in France, who do not have the same involvement in the development of staff as those in England or America. Ion et al. (2024) similarly found that in England, Poland and Catalonia (Spain), teachers' research engagement was influenced by the extent to which school leadership styles promoted learning and change within teaching staff, as well as a climate of trust and support for innovation. Within the same broad project, Kowalczuk-Walędziak and Ion (2024) reported that research-engaged teachers in Poland and Catalonia described, during interviews, the importance of school leaders providing the time, resource and acknowledgement required to promote a culture of research engagement.

Research engagement is, to varying degrees, led from the top at all three case study sites we visited in England: through the creation of named and funded posts and the incorporation of research-engagement into the schools' purposes and values. At all three sites, educational research is being undertaken by individuals and in collaboration with others, at different scales and with different foci. Research is also being disseminated and networks within and outside the schools formed. The benefits were conceived broadly within these schools as: recruitment and retention of teachers, improvement of teaching and learning, and school distinctiveness. However, if teaching is to be considered a mature profession, a point we raised at the start of this article, following Sachs (2016), then it is crucial that research is seen to be core to teachers' work, not an add-on (BERA/RSA, 2013; Stenhouse, 1981; Leat et al., 2014).

Thus, returning to Sachs's (2016) call for a vision for the teaching profession that is grounded in collaboration and research-engagement, findings from our study have shown how, while in all three schools there were glimmers of her vision for a mature profession being realised, this was beginning to happen most consistently and explicitly in North and City schools. Here, as noted by the OECD (2022), leadership was crucial. School leadership has been shown to be a key factor in teacher retention (EEF, 2023), in school performance relative to context (Hallinger, 2018), the impact of social justice practices in schools (Wang, 2016) and has a significant influence on teacher autonomy and quality of teaching (Day, 2017). This was also the case in relation to the take up of research in the three schools.

The support and trust of the senior leadership team at North School, for instance, was seen as critical to the success of the ARLs, who were given a considerable degree of autonomy in shaping their roles. At City school, the leadership team saw teachers' engagement with research as being central to their role within the school. Arguably, though, the greatest success at creating such a profession was at North School, where the leadership enabled the ARLs to self-direct and were beginning to draw in colleagues to engage with their projects. And while City School's leadership team was the most ambitious for its whole staff, it experienced challenges as the school grew and communication between leaders and teaching staff was not consistent. And, whilst Central School had an impressive reach for its research community, it presented a concerning case in terms of the burden on Mala, the research lead, which went unrecognised and unsupported by the school leadership.

We have indicated above that "intelligent communities" of teachers

(Cain, 2019) help to create self-improving education systems and we have also concurred with Sachs (2016) about their importance of this for building a mature profession. However, these arguments alone, despite research being valued by teachers (see for example, Proctor, 2015), are unlikely to convince them of the importance of research-engagement, especially if there is no support for lightning workloads in other areas. As our findings also pointed out, teachers will also need to feel that this work is valued by the school, and educations system, and see it as an integral component of what it means to be a teacher. This will require material support to schools and teachers.

It is our view that enhancing research engagement in schools is good for teacher professionalism and for education systems. Much of the current policy agenda in England has seen attempts to "teacher proof" curriculum and assessment, and indeed pedagogy – based on evidence from dubious sources and on authoritarian perspectives (Clarke, 2023; Hordern & Brooks, 2023), and especially so since the pandemic (Peruzzo et al., 2022). This has seen teachers as simply implementers of other's ideas and programmes. We have argued here instead that teachers should be critical consumers and producers of research, building what Winch et al. (2015, p. 213) refer to as a "constructive relationship with research knowledge", where they exercise professional autonomy through collaboratively investigating their own practice and sharing the results. While engaging in research is not necessarily emancipatory, our findings in this study have supported claims that teachers' engagement with research has the potential to excite, to energise, to bring about wonderment, to open up new possibilities, to challenge preconceived ideas and ways of doing teaching, to be subversive, to challenge power relations, and to rethink what it means to be a teacher (see for example, BERA/RSA, 2013; Cochran-Smith & Lytle, 2021). Given the right support, this would surely make teaching an attractive career for those excited by the possibilities of a rich educational experience for the young people in their care. As Walter said of his ARL role at North:

> I suppose it feels more like how education, what being a teacher should be. It should be a case of engaging with literature, being able to communicate with others, being able to go to other schools. Surely every teacher should be able to do that.

6. Conclusions

Despite Sachs (2016) asking, "why are we still talking about it?", the research presented here suggests that further exploration of what it means to be a professional teacher in today's schools is required. Much has been made of recent policy contexts which have worked to de-professionalise teachers, and we do need critiques of these contexts. However, we are also of the view that we need to acknowledge the efforts of teachers and schools to ensure that teacher professionalism is valued, beyond conceptions of "evidence-based teaching" as currently framed in the English policy context. As Kowalczuk-Walędziak and Ion (2024) argue, the international literature currently constructs a discourse of deficit in relation to teachers' research engagement. There is much to be gained however, from inquiry into the contexts in which research-engagement, as a professional stance, is being developed at a systematic level. To this end, the examples provided here demonstrate some of the ways in which research can be built into the everyday professional work of teachers. In one school, City School, all teachers were expected to engage in research, in another, North School, there were designated teachers with research roles who were expected to lead other teachers in their research efforts, while in the third school, Central School, there was only one research lead. We have pointed to the importance of leadership in ensuring the success of integrating research into the life of a school. We also recognise that the data in this paper only provide a snapshot into the research lives of those working in the three schools. Further research examining how teachers are to be prepared as researchers, how research can be integrated into the timetables of teachers, how teacher research is best disseminated is required. Some of the teacher comments in City School also point to the need to consider the differing positions of senior administrators and teachers where research is mandated as part of the teachers' role. However, it is our hope that the snapshots of school efforts to engage with research in this paper can contribute to an on-going analysis of how to make research an integral component of teacher professionalism.

CRediT authorship contribution statement

Martin Mills: Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Haira E. Gandolfi:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Becky Taylor:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Antonina Tereshchenko:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Mark Hardman:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Ethics approval statement

Ethical approval was granted by the Research Ethics Committee at UCL's Faculty of Education and Society, United Kingdom.

Funding sources

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The data that has been used is confidential.

References

Acuña, F. (2023). Governing teachers' subjectivity in neoliberal times: The fabrication of the bonsai teacher. *Journal of Education Policy*, 1–20.

Ball, S. J. (2003). The teacher's soul and the terrors of performativity. *Journal of Education Policy, 18*(2), 215–228.

BERA/RSA. (2013). Research and teacher education: The BERA-RSA inquiry. Policy and practice within the United Kingdom. *British Educational Research Association*.

Biesta, G. (2007). Why 'what works' won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory, 57*(1), 1–22.

Biesta, G. (2010). Why 'what works' still won't work: From evidence-based education to value-based education. *Studies in Philosophy and Education, 29*(5), 491–503.

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. SAGE Publications.

British Educational Research Association (BERA). (2018). Ethical guidelines for educational research. Retrieved from https://www.bera.ac.uk/wp-content/uploads/2018/06/BERA-Ethical-Guidelines-for-Educational-Research_4thEdn_2018.pdf?noredirect=1.

Brooks, C., & Perryman, J. (2024). Teacher recruitment policies: Accelerating issues of spatial justice in England. *Asia-Pacific Journal of Teacher Education*, 1–15.

Brown, C., & Flood, J. (2018). Lost in translation? Can the use of theories of action be effective in helping teachers develop and scale up research informed-practices? *Teaching and Teacher Education, 72*, 144–154.

Brown, C., & Zhang, D. (2016). Is engaging in evidence-informed practice in education rational? What accounts for discrepancies in teachers' attitudes towards evidence use and actual instances of evidence use in schools? *British Educational Research Journal, 42*(5), 780–801.

Cain, T. (2019). *Becoming a research-informed school: Why? What? How?* Routledge.

Carr, F., & Kemmis, S. (1986). *Becoming critical: Education, knowledge and action research*. Falmer Press.

Carter, A. (2015). Carter review of initial teacher training (ITT). Retrieved from https://www.gov.uk/government/publications/carter-review-of-initial-teacher-training .

Chiang, T. H., & Trezise, D. (2021). How teacher competence functions as an institutionalised discourse in the epoch of globalisation. *Cambridge Journal of Education, 51*(1), 105–125.

Clarke, M. (2023). The subordination of teacher identity: Ethical risks and potential lines of flight. *Teachers and Teaching, 29*(3), 241–258.

Cochran-Smith, M., & Lytle, S. L. (1999). The teacher research movement: A decade later. *Educational Researcher, 28*(7), 15–25.

Cochran-Smith, M., & Lytle, S. L. (2021). Inquiry in the age of data: A commentary. *Teaching Education, 32*(1), 99–107.

Coldwell, M., Greany, T., Higgins, S., Brown, C., Maxwell, B., Stiell, B., Stoll, L., Willis, B., & Burns, H. (2017). Evidence-informed teaching: An evaluation of progress in England. Research report. *Department for Education*.

Connell, R. (2009). Good teachers on dangerous ground: Towards a new view of teacher quality and professionalism. *Critical Studies in Education, 50*(3), 213–229.

Day, C. (2017). School leadership as an influence on teacher quality. In X. Zhu, A. Goodwin, & H. Zhang (Eds.), *Quality of teacher education and learning. New frontiers of educational research*. Singapore: Springer. https://doi.org/10.1007/978-981-10-3549-4_7.

Department for Education (DfE). (2014). National professional qualification for middle leadership (NPQML). Retrieved from https://www.gov.uk/guidance/national-professional-qualification-for-middle-leadership-npqml .

Department for Education (DfE). (2019a). ITT core content framework. Retrieved from https://www.gov.uk/government/publications/initial-teacher-training-itt-core-content-framework .

Department for Education (DfE). (2019b). Early career framework. Retrieved from https://www.gov.uk/government/publications/early-career-framework.

Department for Education (DfE). (2021). Initial teacher training (ITT) market review report. Retrieved from https://www.gov.uk/government/publications/initial-teacher-training-itt-market-review-report.

Education Endowment Foundation (EEF). (2023). Teacher quality, recruitment and retention: Rapid evidence assessment. *Education Endowment Foundation*.

Ellis, V. (Ed.). (2011). *Learning and teaching in secondary schools* (4th ed.). Learning Matters.

Ellis, V., & Childs, A. (2023). Introducing the crisis: The state, the market, the universities and teacher education in England. In V. Ellis (Ed.), *Teacher education in crisis: The state, the market and the universities in England* (pp. 1–26). Bloomsbury.

Evans, L. (2008). Professionalism, professionality and the development of education professionals. *British Journal of Education Studies, 56*(1), 20–38.

Evetts, J. (2013). Professionalism: Value and ideology. *Current Sociology, 61*(5–6), 778–796.

Freidson, E. (2001). *Professionalism, the third logic: On the practice of knowledge*. University of Chicago Press.

Gaussel, M., MacGregor, S., Brown, C., & Piedfer-Quêney, L. (2021). Climates of trust, innovation, and research use in fostering evidence-informed practice in French schools. *International Journal of Educational Research, 109*, Article 101810. https://doi.org/10.1016/j.ijer.2021.101810

Goodwin, A. (2021). Teaching standards, globalisation, and conceptions of teacher professionalism. *European Journal of Teacher Education, 44*(1), 5–19. https://doi.org/10.1080/02619768.2020.1833855

Hallinger, P. (2018). Bringing context out of the shadows of leadership. *Educational Management Administration & Leadership, 46*(1), 5–24.

Helgetun, J. B., & Menter, I. (2020). From an age of measurement to an evidence era? Policy-Making in teacher education in England. *Journal of Education Policy*, 1–18.

Hodgson, P. (1987). *A practical guide to successful interviewing*. McGraw Hill.

Hordern, J., & Brooks, C. (2023). The core content framework and the 'new science' of educational research. *Oxford Review of Education, 49*(6), 800–818.

Ion, G., Kowalczuk-Walędziak, M., & Brown, C. (2024). Unlocking the potential of research-informed practice: Insights into benefits, challenges, and significance among teachers in Catalonia, Poland, and England. *European Journal of Education, 59*(3), Article e12639. https://doi.org/10.1111/ejed.12639

Kemmis, S., & McTaggart, R. (1992). *The action research planner*. Deakin University.

Kowalczuk-Walędziak, M., & Ion, G. (2024). Understanding and improving teachers' research engagement: Insights from success stories in Poland and Spain. *Teaching and Teacher Education, 151*, Article 104747. https://doi.org/10.1016/j.tate.2024.104747

la Velle, L. (2015). Translational research and knowledge mobilisation in teacher education: Towards a 'clinical', evidence-based profession? *Journal of Education for Teaching, 41*(5), 460–463. https://doi.org/10.1080/02607476.2015.1105534

Lambirth, A., & Cabral, A. (2017). Issues of agency, discipline and criticality: An interplay of challenges involved in teachers engaging in research in a performative school context. *Educational Action Research, 25*(4), 650–666.

Leat, D., Lofthouse, R., & Reid, A. (2014). Teachers' views: Perspectives on research engagement. In *Research and teacher education: The BERA-RSA inquiry*. BERA.

Lopes, A., Folque, A., Marta, M., & de Sousa, R. T. (2023). Teacher professionalism towards transformative education: Insights from a literature review. *Professional Development in Education*, 1–15.

Maguire, M. (2009). Towards a sociology of the global teacher. In M. W. Apple, S. J. Ball, & L. A. Gandin (Eds.), *The routledge international handbook of the sociology of education* (pp. 76–86). Routledge.

Mayer, D., & Mills, M. (2021). Professionalism and teacher education in Australia and England. *European Journal of Teacher Education, 44*(1), 45–61.

Mills, M., Mockler, N., Stacey, M., & Taylor, B. (2021). 'The village and the world': Research with, for and by teachers in an age of data. *Teaching Education, 32*(1), 1–6.

Mockler, N. (2022). Teacher professional learning under audit: Reconfiguring practice in an age of standards. *Professional Development in Education, 48*(1), 166–180. https://doi.org/10.1080/19415257.2020.1720779

Murtagh, L., & Rushton, E. A. (2023). The role of teacher educator virtual communities of practice (VCoPs) in mobilising policy engagement: A case study of the initial teacher training market review from England. *Asia-Pacific Journal of Teacher Education*, 1–19.

OECD. (2022). Who cares about using education research in policy and practice?. In *Educational research and innovation*. OECD.

Peruzzo, F., Ball, S., & Grimaldi, E. (2022). Peopling the crowded education state: Heterarchical spaces, EdTech markets and new modes of governing during the COVID-19 pandemic. *International Journal of Educational Research, 114*.

Procter, R. (2015). Teachers and school research practices: The gaps between the values and practices of teachers. *Journal of Education for Teaching, 41*(5), 464–477.

Ross, J., & Bruce, C. (2012). Evaluating the impact of collaborative action research on teachers: A quantitative approach. *Teacher Development, 16*(4), 537–561.

Sachs, J. (2016). Teacher professionalism: Why are we still talking about it? *Teachers and Teaching, 22*(4), 413–425.

Saldaña, J. (2021). The coding manual for qualitative researchers. *Sage*.

Stenhouse, L. (1981). What counts as research? *Educational Studies, 29*(2), 103–114.

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change, 7*(4), 221–258.

Walker, M., Nelson, N., Bradshaw, S., & Brown, C. (2019). *Teachers' engagement with research: What do we know? A research briefing*. The Education Endowment Foundation. Retrieved from https://files.eric.ed.gov/fulltext/ED620325.pdf.

Wang, F. (2016). From redistribution to recognition: How school principals perceive social justice. *Leadership and Policy in Schools, 15*(3), 323–342.

White, S. (2021). Generating enabling conditions to strengthen a research-rich teaching profession: Lessons from an Australian study. *Teaching Education, 32*(1), 47–62.

White, S., Down, B., Mills, M., Shore, S., & Woods, A. (2020). Strengthening a research-rich teaching profession: An Australian study. *Teaching Education, 32*(3), 338–352.

Winch, C., Oancea, A., & Orchard, J. (2015). The contribution of educational research to teachers' professional learning: Philosophical understandings. *Oxford Review of Education, 41*(2), 202–216.

Wrigley, T. (2018). The power of 'evidence': Reliable science or a set of blunt tools? *British Educational Research Journal, 44*(3), 359–376.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE.