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Space as a lens for teacher agency: A case study of three beginning teachers in England, UK

Elizabeth A. C. Rushton[1,2] ⓘ | Amy Bird[3]

[1]School of Education, Communication and Society, King's College London, London, UK

[2]Department of Curriculum, Pedagogy & Assessment, Institute of Education, University College London, London, UK

[3]Department of Student Support and Success, University of Winchester, Winchester, UK

Correspondence
Elizabeth A. C. Rushton, Department of Curriculum, Pedagogy & Assessment, Institute of Education, University College London, London, UK.
Email: l.rushton@ucl.ac.uk

Abstract

Drawing on conceptualisations of space, we explored the ways three beginning teachers in England experienced and developed agency during the first three years of their careers. We completed a series of interviews with the same three teachers during their year of Initial Teacher Education and subsequent two years as Early Career Teachers; a total of 15 interviews over three years). Our findings demonstrated that the key barrier to agency beginning teachers experienced was a rigid curriculum, with reduced opportunities for innovation at a classroom and/or department level. Participants highlighted enablers of agency including demonstrations of professional trust; opportunities to develop their pedagogies and subject knowledge and their own recognition of the temporal and dynamic nature of agency. Through engaging with conceptualisations of space, we have shown how some teachers were able to identify spaces of agency, move between different spaces of agency and even create spaces of agency where none previously existed. We argue that in addition to the widely understood emergent, dynamic, and temporal facets, conceptualisations of teacher agency as a phenomenon can be extended through the lens of space. Space helps us understand agency as a messy entanglement of the cultural, material, and relational conditions and qualities of agency made explicit in the ecological approach. Through space, we can explore these entanglements as multiple, non-linear, loose connections which teachers bring

together when they achieve agency. We contend that the lens of space may support more nuanced under-standings of teacher agency in research and policy-making worldwide.

K E Y W O R D S
beginning teachers, England, space, teacher agency

INTRODUCTION

Governments worldwide frequently seek to raise the quality and increase the effectiveness of their education and school systems. Key approaches to this policy work include a focus on the quality of the classroom teacher (Akiba & LeTendre, 2017; Towers et al., 2023) and the importance of teachers' agency (Priestley et al., 2015). This article reports data from a research project based in England, which investigated the ways in which beginning teachers (including student teachers and early career teachers, ECTs)[1] develop agency over the first three years of their career. This project took place at a time when Initial Teacher Education (ITE) in England experienced two waves of significant and sustained disruption. The first was the Covid-19 pandemic, which comprised a series of national lockdowns during 2020–2021 in countries all over the world including England, which meant that many educational institutions were closed, and teaching and learning moved online (Ofsted, 2020; Rushton et al., 2023).

The second involved a significant period of policy turbulence in ITE in England. This included the introduction of two new statutory ITE policies in 2019, the Early Career Framework (ECF; DfE, 2019a) and the Core Content Framework for Initial Teacher Training (CCF; DfE, 2019b). The new Ofsted[2] framework for the inspection of teacher education (Ofsted, 2020) made clear that the successful implementation of the CCF would be a marker of an ITE provider's quality. The CCF was introduced to support the development of pre-service teachers in pedagogy, assessment, behaviour management, curriculum and professional behaviours (DfE, 2019b). The ECF was part of a response to persistent teacher recruitment and retention challenges (DfE, 2019c) and includes doubling the length of induction, from one to two years, and providing schools with additional funding for mentor support and training programmes (DfE, 2019a). Furthermore, in 2021, the DfE launched a Market Review of Initial Teacher Training with the stated aim to ensure that 'all trainees receive high-quality training' and that the 'ITT market' 'benefits all schools' (DfE, 2021). A goal of the review was to implement a common core curriculum for ITE, with fidelity to the CCF and to achieve this through a two-stage re-accreditation process for all providers. Other changes include mandating 'intensive practice' school placements and changes to mentoring in schools including increasing the amount of time expected for both mentoring and mentor training (Murtagh & Rushton, 2023).

The aim of this paper is to explore the ways in which beginning teachers develop agency during the first three years of their career and consider the nature of the barriers and enablers of agency that they experience. Whilst many studies have explored and theorised teacher agency (e.g. Priestley et al., 2015), few studies have explored agency over the entire period of the recently established 'early career teacher' phase for beginning teachers in England. Furthermore, as teacher agency features in education policy beyond England, we argue that the findings from this study of teacher agency have relevance for teacher educators and researchers worldwide.

This paper centres on the research question: *How, and in what ways, do early career teachers in England experience agency during the first three years of their careers?* We start by exploring what is understood by teacher agency. We present data that reveal the barriers to and enablers of agency that beginning teachers experienced during the first three years of their careers. We reflect on the way in which the lens of space provides a further and novel dimension to conceptualisations of teacher agency.

What is teacher agency?

The concept of agency has been defined through a range of disciplinary perspectives but can be broadly understood as a person's capacity to act independently and make their own choices (Jääskelä et al., 2017). Although teacher agency is contested and understood differently, in recent times, teacher agency has been a focus of policy work across the globe, with narratives of teachers as agents of change (Pantić & Florian, 2015; Priestley et al., 2012). Concomitantly, researchers in the fields of sociology and education have grappled with and debated the concept of teacher agency, articulating a range of understandings. Teacher agency has been the focus of systematic reviews of the literature (Cong-Lem, 2021), including conceptualisations of teacher agency in the context of inclusive education (Li & Ruppar, 2021). Priestley et al. (2015) summarise three contrasting ways of articulating teacher agency: agency as a *variable*, agency as *capacity* and agency as a *phenomenon* (p. 20). Agency as *variable* sees agency and structure as a binary, where discussions and debates centre on the extent to which agency or structure has greater influence on educational outcomes and reforms. Agency as *capacity* draws on social-cognitive models which understand agency as an individual capacity or quality, which a person holds or possesses. This understanding of agency as a *capacity* of an individual is consistent with the work of Bandura (2018) who has identified three facets of human agency: forethought, self-reactiveness and self-reflectiveness, which themselves exist in three dimensions of the individual, proxy and collective. Conceptualisations of teacher agency which focus on an individual or specific groups have the potential to make less visible the consequences of policy failure (Van de Putte et al., 2018). At the same time, whilst teachers' individual beliefs are important in informing agency, Biesta et al. (2015) underline the need to consider the importance of clear, robust and collective understanding of the purposes of education which move beyond the individual beliefs of teachers.

Finally, understanding teacher agency as a phenomenon is part of a socio-cultural approach (Emirbayer & Mische, 1998; Giddens, 1984) where agency has a temporal quality which is dynamic, that is to say, agency changes over time (Priestley et al., 2015). Much recent research (e.g. Erss, 2018; Leijen et al., 2020) which considers teacher agency has drawn on the ecological approach articulated by Priestley et al. (2015). This socio-cultural conceptualisation of teacher agency understands agency as an emergent phenomenon, not the capacity of an individual, agency is something that people achieve or do, not what people possess. Secondly, teacher agency is understood as being dependent on conditions and qualities, including cultural, material, relational resources and people's ability to use them. Thirdly, teacher agency is recognised as temporal—informed by the past, oriented towards the future and enacted in the present (Priestley et al., 2015). Our research which considers ECTs' experience of agency is rooted in understandings of teacher agency as an ecological approach. This understanding is further informed by contemporary geographical scholarship focused on conceptualisations of space. As such, we outline the concept of space and consider its potential affordances for further developing ideas of teacher agency.

What is space?

Space is understood in current geographical thinking as more than a location on a map or a place in the digital realm but instead, a complex context where relational and fluid agency is enacted (Horton & Kraftl, 2006; Massey, 2005). In her pivotal work, *For space*, Massey (2005) identifies three propositions when understanding space. Firstly, space is to be understood as the product of interrelations and constituted through interactions from tiny to global. In the context of education, this could mean individual or 'tiny' interactions between a teacher and their students along with interrelations between education ministers at a global education summit: space is constituted or produced through both. Secondly, space consists of plurality and multiplicity where different and distinct trajectories co-exist. In the context of the classroom, student learning has multiple and different trajectories that co-exist, which teachers simultaneously respond to that are consistent with this aspect of space. Thirdly, space is continuously under construction, space is, 'a simultaneity of stories-so-far' (p. 9). The continuous construction of space can be actively shaped by people, including children and young people, as well as adults, as Horton and Kraftl (2006, p. 88) argue, 'children (and adults) are constantly creating, or co-creating their geographies. Spaces are never finished … There are all sorts of complex, contingent and on-going connections that always make spaces (an) under-construction'. These understandings of space as complex, always changing, as a *verb* (Horton & Kraftl, 2006) are consistent with conceptualisations of teacher agency as an emergent phenomenon, something which teachers *do*, rather than possess and which are both dynamic and temporal (Priestley et al., 2015). Understanding teacher agency through a spatial lens means that agency is formed by complex and relational interactions with places and people, over time. Massey's (2005) conceptualisation of space as both created by interrelations and a sphere of multiple possibilities is consistent with teacher agency as an emergent phenomenon, that can only be achieved through others, and where there are spaces that create the necessary conditions for that possibility to be realised. Through an analysis of the experiences of three beginning teachers during the first three years of their professional lives, we argue that the lens of space can further develop conceptualisations of teacher agency as an emergent phenomenon. Firstly, space provides a way to further understand agency as a messy entanglement of the cultural, material and relational conditions and qualities, made explicit in the ecological approach. Secondly, as time is an inviolable aspect of space, the spatial dimension underlines ideas of agency as multiple and non-linear. Thirdly, we contend that space helps us further understand agency as a phenomenon where teachers identify, move between and themselves *create* spaces of agency.

METHODS

The data collection methods, participants and ethical considerations are described before outlining the analysis process.

Data collection

Data have been derived from a series of semi-structured interviews with the same three participants (Table 1) during 2020–2022, a total of 15 interviews. Interviews lasting approximately 40–50 min were completed with each participant at three points during the 2020–2021 academic year (when they completed their Post-graduate Certificate in Education or PGCE): October 2020, January 2021 and April 2021. Each participant completed a further

TABLE 1   Participant profiles.

Name	Participant profile
Danny	Male, 23–27 years, White British. Undergraduate degree in Environmental Science, outdoor education guide. PGCE school placements in two London-based secondary schools. ECT year 1 and 2 in the same school in Bedfordshire, UK
Lucy	Female, 23–27 years, White British. Undergraduate degree in Geography, sports coach. PGCE school placements and ECT year 1 in London-based secondary schools. ECT year 2 in secondary school in Manchester, UK
Paul	Male, 23–27 years. White British. Undergraduate degree in Geography, prior work in customer service. PGCE school placements in secondary schools in London. ECT years 1 and 2 in the same school in London, UK

interview in December 2021 and December 2022, during their first and second years as an ECT. Interviews included questions about participants' past careers and education, including work with children and young people. Participants were asked to describe their current role, and in subsequent interviews shared changes in role, activities and responsibilities since the previous conversation. Participants were asked about what opportunities and challenges they experienced and what support they would like in the future.

The study was approved by the researcher's Institutional Ethics Committees (6 August 2020, REC1627). As this research was conducted through a series of interviews undertaken over a period of more than two years by author one, consent was revisited, with attention to the participants' roles and responsibilities as they moved through a period of teacher education to full-time teaching roles. In addition, in the first year of the interviews, author one held a dual role as researcher and programme leader of the PGCE secondary geography programme and the participants were students in that programme. This meant it was especially important that participants were regularly reminded and understood that their participation was wholly voluntary, and any contributions were separate from PGCE programme progress and outcomes. Video interviews were held online to provide flexibility for participants. Author one invited participants to view the questions prior to the interview, and Danny requested the questions ahead of the first and final interviews.

Analysis process

Following the anonymisation of all transcripts, data were analysed by both authors. Reflexive Thematic Analysis (RTA) was used to identify patterns of meaning across the 15 interviews through iterative phases of analysis (Braun & Clarke, 2019, 2021). Six phases of analysis included (1) data familiarisation, (2) data coding, (3) generation of initial themes, (4) revision of themes, (5) naming and defining themes and (6) writing the analytical narrative in the context of the literature (Braun & Clarke, 2006; Clarke et al., 2015). Data familiarisation for author one took place throughout the data collection period, through reviewing interview transcripts between each phase of interviews and reflecting on the composition of the whole data set at each stage of data collection. Data familiarisation for author two took place at the end of the data collection period. Through both individual reflections and joint discussions, the authors were able to consider and reflect upon their former experiences and how these shaped their engagement with the data. For example, author one drew upon her experiences as a secondary school geography teacher, teacher educator and a researcher with expertise in the professional identity of teachers. In addition, author one reflected on her role as a geography teacher educator who worked in that capacity with the participants who were, at the outset of the research, all PGCE geography students. Author two drew on her

previous experiences of interview-based research with secondary school teachers and her wider knowledge of educational spaces as a facilitator of outdoor learning with secondary school students. Insights and expertise from each of these roles and experiences informed the researchers' understanding of the data, and the author one's familiarity with the participants facilitated rich and detailed conversations.

For author one, steps two–five of the RTA process initially involved (on average) monthly reflections during the period October 2020–December 2022 to consider the ways in which participants' experiences of and ideas about agency were visible in the data. This data included both data generated by participants and researcher reflections. For example, author one reflected on the ways in which participants described their roles and experiences as teachers as they moved through different phases at the beginning of their careers. Such analysis was situated in author one's familiarity with the participants, the specific ethos and pedagogy of the teacher education programme participants had completed and the wider literature of both teacher agency and teacher professional development.

For a period of about five months, beginning in January 2023, authors one and two met bi-monthly to undertake a second phase of RTA, moving through steps two–five. This opportunity to include a researcher at this stage of analysis who had no prior experience with the participants, or the pedagogy of the teacher education programme participants had completed, allowed for different ideas and insights to be identified and discussed. Discussion between authors one and two included drawing on participants' data, researcher reflections and published literature focused on teacher agency (e.g. Priestley et al., 2015) and space (e.g. Massey, 2005). Consistent with Braun and Clarke (2019), a flexible and iterative approach to coding was taken, including predominantly inductive (constructivist and data-driven) coding, where respondent meanings in the data were emphasised. Deductive (essentialist and theory-driven) coding was also used to ensure that the analysis remained relevant to the research questions and the overarching theoretical framework of teacher agency.

Given author one's role as a teacher educator, with extensive knowledge of the research context and participants, there is the potential that this knowledge may have overly influenced author one's engagement during data analysis. Therefore, the inclusion of author two at this stage of the research process, who had no previous engagement with teacher education in general, or the research participants in particular, provided an analytical perspective that was 'at arm's length' from the data and reduced the potential for bias. Prior to data analysis discussions, the authors agreed that should there be conflicts in our interpretations or analysis we would return to the key questions to consider when reviewing themes as outlined by Braun and Clarke (2012) as a framework for our decision-making. Finally, inspired by the approach of Hoffman et al. (2021) and consistent with a previous phase of this research (Rushton, 2021), Author one shared research reflections with the participants and invited them to review drafts and comment on the extent to which their experiences were shared in a fair and comprehensive way. This process led to participants sharing several clarifications which were subsequently incorporated into the analysis.

FINDINGS

The key barrier to achieving agency which ECTs articulated was the rigidity of the curriculum, with reduced opportunities for teachers to innovate in their classroom teaching and/or at the departmental level (Table 2). This barrier was experienced in different ways by participants including (1) conflicting ideas of curriculum development and implementation with more experienced teachers, (2) lack of structural support for geography curriculum innovation, (3) focus on assessment and (4) experiencing the ECF as a rigid structure.

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T A B L E 2   Barriers to agency.

Theme	Indicative quotes
1. Rigid curriculum, with reduced opportunities for innovation at a classroom and/or departmental level	
1a. Conflicting ideas of curriculum development and implementation with more experienced teachers	'It can be quite difficult because there are very different perspectives through generations…the department is very established. Technology is something that is not really utilised here…sometimes here I feel like I am letting the kids down because [with technology] there [are] more interesting ways of teaching geography' (Paul, ECT 1) 'My colleagues have very established ideas about what geography should be as a subject. I see it as being modern and that we need to decolonise it. Our Year 7 Africa scheme of work which I re-developed…it was so stereotypical… but it is not a priority…It's not a political priority. I don't think it will trickle down into being a school priority. It's very hard to justify across the whole school… and then, because of that, it's just hard for me to justify to my department why I should spend more time on it…even though I think it is incredibly important' (Paul, ECT 2)
1b. Lack of structural support (school-wide, policy-wide) for geography curriculum innovation which can reduce the appeal of the curriculum for teachers and students	'I started an eco-club…I got the kids engaged…we did a bake sale, they raised £600…we said to the students what do we want to do with it? They wanted to create a school garden with herbs and fruits…cool, we'll ask the Head for this amount of the school field. The school's got a massive field…but you know, they wouldn't even let us plant a tree' (Paul, ECT 2) 'I feel a little bit constrained by the curriculum…because some of it is a bit dull for, you know, teenagers…sometimes I find myself going through it and I'm like, 'This is boring!' … I think one or two lessons and it's great but when you're…like nine lessons down, and you're still going through it … sssyou go to University and start studying geography and it becomes a bit more philosophical, even the physical side of it, it becomes a lot more critical.…but you can't really be too critical in the kind of younger years' (Danny, ECT 1) 'The process of inquiry in geography is lacking in my second placement school…it is not giving the children the opportunity to ask questions…they can't explore and question what they are being taught…they can't express themselves' (Lucy, PGCE)
1c. Focus on assessment	'There's a lot of long exam questions … they take lesson time to practice…We teach a GCSE module in Year 9…so it's really difficult because you want to keep them engaged but you also need to get the right exam practice in but then if they're not enjoying the exam practice, then they're not going to take it at GCSE' (Danny, ECT 1)
1d. Experiencing the ECF as a rigid structure.	We are given pretty much a script of what to do, my mentor has a script of what to say almost to the letter for our mentor meeting … I'd much rather her observe me for five minutes and us both reflect on it after or a different kind of task … I think it's too prescriptive … I feel … spending half an hour reflecting on my lessons from the week rather than writing a script is a much more effective and valuable use of my time' (Lucy, ECT1)

Paul describes a temporal dimension of agency when he experiences resistance from his 'very established' departmental colleagues when he attempts to innovate, for example, the opportunities to use technology when teaching geography (Table 2, Theme 1a). Paul also shares how a lack of school-wide or policy-level support for curriculum development are key barriers to both teacher and student agency (Table 2, Theme 1b). For example, Paul shares how even when he creates a new space of agency by establishing a student-led Eco-club (see Table 3 and below for more discussion of spaces of agency), he experiences structural barriers through a lack of support from the school leadership in realising the students' goals for the new Eco-club (Table 2, Theme 1b). Danny also experiences curriculum-focused barriers including the need to devote significant amounts of classroom time to exam preparation and reduced opportunities to develop students' criticality which can mean the geography

TABLE 3 Enablers of agency.

Theme	Indicative quotes
1. Demonstrations of professional trust	
1a. Opportunities to develop responsibility	'It is so nice … for me to be the main teacher, to have these classes under my control and me be the one that is responsible for them and for their progress and for their wellbeing' (Lucy, ECT 1) 'As an ECT you've got your own classroom so that's your space. The students enter your space, you're not entering their space like when you are a PGCE student, so that's been really nice to have that this year … It's given me the confidence to try stuff now because they are my class' (Danny, ECT 1) 'The best thing I've done in teaching is when I worked with a student with visual impairment…because I grew so much just through thinking differently' (Paul, ECT 1)
1b. Working with colleagues who are open to new ideas.	'There were a couple of lessons where I adapted the scheme of work because teachers are busy and…it was about 10 years old, and I was able to interweave sustainability at points…make it more relevant and interesting…and my mentor used it herself which was great' (Paul, PGCE) '[My school] has got a lot of established teachers … some things are quite set in stone but…they're still very welcoming to new teachers who have new ideas…I feel like I've got quite a lot of free rein over what I teach and how I teach it as long it's within the learning objective essentially so I can try different stuff' (Danny, ECT 1)
2. Opportunities and support to continuously develop subject knowledge and pedagogy	
2a. Communities of practice	'I am learning from my university lecturers and other students…taking on all these different points of view and increasing my knowledge of human geography… improving myself as a geographer … improving my confidence all the time.' (Lucy, PGCE) 'I've been very fortunate … there's four full time geographers including the head of the department, plus a few non-specialists that teach the odd Year 7 and 8 class … I've joined a really nice team and supportive environment. We've got an office that we all sit in, throw ideas around together.' (Danny, ECT 1)
3. Recognition of the temporality of agency where previous experiences and anticipating greater agency in the future sustains during periods of challenge	'I look back on…my PGCE…placement and that's what those kids needed; they needed to see that geography was something that could actually be useful to them…and even here, where the curriculum doesn't want to do that…I've been sneakily adapting lessons to make that a thing. That is my way of ensuring I'm doing right, because even if you don't want to go and do geography as a GCSE, you're just doing it because you have to, at least you're going to get something you can use out of it' (Paul, ECT 1) I think [climate change and sustainability] is not something I've been able to act on explicitly at the moment but it's something I definitely want to look at in the future and again I think the school would probably be quite up for listening to some development in that area … However I do find that a lot in the topics we've been teaching, we're doing population in Year 8, population and London in Year 10 and then just general conversations with Year 12, I often find myself talking about the implications of population, overconsumption of resources and leading onto climate change so actually I think through discussion in lessons, I somehow always manage to [include] it so that's quite good' (Danny, ECT 1)
4. The ability to identify, access and create a range of professional spaces which support agency and the capabilities to move between them	
4a. Pastoral role as a space through which to develop agency.	I've got a year twelve form group. It's amazing…I come in every morning, we play chess as a class and they all try and beat me' (Paul, ECT 1) 'I have got a Year 7 form so essentially as an ECT you are…in it together with your form … both new at the same time … that has been a really nice way to start' (Danny, ECT 1)

TABLE 3 (Continued)

Theme	Indicative quotes
4b. Opportunities to integrate learning from academic research with teaching practice.	'I feel well prepared for the ECT stage … the way that I did the PGCE and combing … the academic side of it from lectures … into our teaching practice in school … I am now quite open to that … it has been good to be able to think about what I did learn about [during the PGCE] the pedagogy and the geography' (Danny, ECT 1)
4c. Creating spaces of agency where they do not previously exist.	'Eco Club's first meeting was today…I set up two groups…it is student led…we are trying to reduce waste…making sure all students can bring in laptops…other actions…we have an air pollution meter being installed…the students can access that data…we are doing everything we can' (Paul, ECT 1) 'Myself and two other colleagues have started an eco-club … we have a lunchtime practical session where we are starting a little vegetable patch … and we are really trying to involve the students in that so they've got kind of ownership over that' (Danny, ECT 2)

curriculum is 'dull' (Table 2, Theme 1b and 1c). Finally, Lucy shares barriers which are related to her experience of the ECF which due to the prescriptive nature of implementation reduces both her agency as a teacher and that of her mentor (Table 2, Theme 1d).

In addition to barriers to agency, four broad enablers of agency were identified: (1) demonstrations of professional trust; (2) opportunities and support to continuously develop subject knowledge and pedagogy; (3) recognition of the temporal dimension, where previous experiences and anticipating greater agency in the future sustains during periods of challenge and (4) the ability to identify, access and create a range of professional spaces which support agency and the capability to move between them (Table 3).

Danny, Lucy and Paul all highlighted different opportunities to develop responsibility (Table 3, Theme 1a). For example, Paul valued the professional learning he gained from working with a student with diverse needs and Lucy shared the confidence she developed through being responsible for the progress and wellbeing of students in her classroom. Opportunities to work with teachers who were open to new ideas were also described by Paul and Danny as being an important indicator that they were trusted by their colleagues (Table 3, Theme 1b).

Through theme two, both Danny and Lucy highlighted the different communities of practice they were part of in both school and university settings which supported them to develop both their pedagogies and subject knowledge (Table 3, Theme 2a). Across theme three, Danny, Lucy and Paul articulated the temporal and dynamic nature of agency where they were able to both consider the agency they enacted in the past and anticipate greater agency in the future. For example, Paul draws on his experiences of the geography curriculum in his PGCE placement as a source of agency which he brings to his current more constricted context. Similarly, Danny recognises that although he is not able to implement climate change and sustainability teaching in the way he would like in his school he can see that this might change in the future through his continued engagement with the school community (Table 3, Theme 3).

The fourth theme focuses on ideas of agency and space and the ways in which Danny, Lucy and Paul identify spaces of agency, move between different spaces and, at times, create new spaces for agency within their current contexts. All three teachers highlight the value of their pastoral role, particularly as form tutors as a space where they can develop agency through different relationships with students. Danny articulates how he is able to bring agency developed in different spaces (university-based PGCE programme and

school-based teaching practice) together to create new spheres of agency. Finally, both Paul and Danny draw on the example of establishing an eco-club as an extracurricular activity with their students. Here, both Danny and Paul describe how they created a new space where they could develop teacher agency which did not previously exist for them.

These findings underline the temporal and dynamic nature of teacher agency, the structures and relationships that enable and inhibit teacher agency and that teacher agency has a spatial dimension. Ideas of both trajectories and spaces of agency are developed further in the following discussion, where we argue that space can help us disentangle the complex and structural barriers that individual teachers experience when they identify, move between, and create spaces of agency.

DISCUSSION

Understanding teacher agency through the concept of space

Through analysis of interview data, we highlight that Danny, Lucy and Paul can identify and articulate different spaces of teacher agency. A common space which is co-constructed with students is the relational and fluid space of the form group, where Danny, Lucy and Paul achieve teacher agency through interactions with their form group. Both Danny and Lucy share how having a form group of students who are new to the school (Year 7) provides students and teachers with a common space of being 'new' and of 'learning together' (Table 3, Theme 4). Paul expresses joy at the different interactions he has with his Year 12 form group through playing chess (Table 3, Theme 4). When Danny and Lucy reflect on their experiences of the PGCE year, they can identify different spaces of teacher agency across both the university and school contexts. The importance of social and material contexts in shaping and constraining teacher agency is made explicit in the ecological approach to teacher agency (Priestley et al., 2015). So too is the idea that agency is understood both temporally and spatially (Priestley et al., 2012). At the same time, Massey (2005) underlines that space is messy, 'full of loose ends and missing links' (p. 12) which contain connections yet to be made through non-linear trajectories. Consistent with the ecological approach to teacher agency, these plural and multiple spaces identified by participants in this study can be understood as providing layers of cultural, material and relational resources through which to achieve agency. Massey's conceptualisation of space further underlines the ways in which agency is the product of negotiated relations which are multiple and occur in an open system that is always under construction. We argue, therefore, that space helps us understand how agency is the messy entanglement of cultural, material and relational resources that are necessarily negotiated by teachers. Drawing on examples from this study we now consider how the concept of space helps us understand the ways in which teachers create spaces of agency.

Moving between and creating spaces of teacher agency

During his two years as an ECT, Paul describes experiencing persistent barriers in enacting agency in the classroom which he attributes to an unwillingness of his 'established' colleagues to develop a more innovative and authentic geography curriculum, for example, the use of technology or decolonising schemes of work. Consistent with the ecological approach to teacher agency, Paul's experience is an example of the structural factors that can constrain teacher agency, where teachers encounter other (in this case more experienced) professionals who have different understandings of the nature and purpose of the

(geography) curriculum. In response to this, Paul draws on the cultural, material and relational resources at his disposal to create other spaces where he can achieve agency. For example, Paul describes how he demonstrates different ways to teach maps skills as part of a summer school and reflects that this would not currently be possible as part of formal geography lessons:

> During the summer school…I was using balloons and blowing them up and talking about how and why maps came to be the way they are…but it is not really where the curriculum is currently at this school.
>
> Paul, ECT 1

In this way, Paul navigates a path around the approach of his 'established' department and creates a different space to enact teaching and learning which he believes is appropriate for the students in his classroom. Rather than experiencing the approach of his colleagues as a barrier or 'dead-end' to agency, Paul can negotiate the 'loose ends and missing links' in this space and bring them together to reconstruct a space that has the necessary conditions and qualities to achieve agency. The lens of space here underlines that agency is an embodied negotiation of resources and that teachers themselves can construct spaces of agency when they encounter structural, material, and contextual barriers. Through this conceptualisation of creating spaces of teacher agency, we do not wish to move away from understanding agency as a phenomenon, rather we draw on space to develop a new understanding of teachers' roles within this phenomenon, as agentic actors who can not only identify and move between spaces but can themselves create spaces of agency. Our case study includes examples where teachers create spaces in which to achieve agency, but these are not always realised. For example, both Paul and Danny establish 'Eco-clubs' in their schools which are student-led extra-curricular activities where they work with students on issues related to the environment, climate change and sustainability. By establishing an Eco-club, Paul creates a space where he can achieve agency: he establishes two groups for students of different ages, and they are able to raise money to fund their future activities. However, Paul and his students do not have the conditions through which to fulfil agency in the space they have created, as the school leadership do not support their ambition to create a school garden as part of the school site and therefore provide a structural barrier to agency. This is in contrast to Danny's experience. During Danny's first year as an ECT, he shares his aspirations to develop a student-led sustainability initiative:

> It is not something I've been able to act on explicitly at the moment, but it is something I definitely want to look at in the future and I think the school would probably be quite up for listening to some development in that…I think the students would be quite engage with…some kind of sustainability initiative as well.
>
> Danny, ECT 1

Danny achieves this aspiration during his ECT 2 year as he shares

> This school is actually gathering a little bit of momentum…within the school governance area there is starting to be more of a focus on kind of the ecological footprint of the school…Myself and two other colleagues from biology have started an eco-club…we have a lunchtime practical session where we're starting a little vegetable patch…we're looking to get a wildflower Meadow planted up… we have had the Wildlife Trust in…staff have noticed the potential…We might be

> working on one of the hedgerows or the verges and the…students want to have a conversation about it and they always ask what you're actually doing…and we explain… it's like a slow-burning, organic project, but there's interest there…from the students … it is hard but they will get involved eventually.
>
> Danny, ECT 2

Here, through interrelations with other colleagues (who are from different departments or spaces within the school community) and with the support of school leadership Danny can create this space through which to achieve agency. From the outset Danny articulates a space that is literally and conceptually under-construction, it is a space that engenders a plurality of connections including teachers, school leaders and external experts. Through this multiplicity, Danny is co-creating a space through which to achieve agency with others from across the school community. Danny understands the relational, cultural and material resources at his disposal, and he can connect these resources over time to construct this new space. In contrast, Paul's space seems to be an almost solo construction, with fixed ideas about the borders and limits and without a sense of this space having multiple spheres of possibility. Therefore, when Paul encounters challenges and limits to his agency through the decisions of school leadership regarding Eco-club, it is harder for him to imagine anew the space he has created, and this leaves him feeling frustrated. Perhaps, Paul's space is underpinned by a linear temporal framework, with the implicit assumption that agency increases over time which is then not realised. Danny's space is more consistent with the messy negotiation of missing links which allows multiple possibilities and outcomes to be realised.

How then can the concept of space, as articulated by Massey (2005), further support nuanced conceptualisations of teacher agency? What can it offer which builds on and extends teacher agency as an ecological approach? (Priestley et al., 2012, 2015). Firstly, we argue that space provides a way to further understand agency as a messy entanglement of the cultural, material and relational conditions and qualities of agency made explicit in the ecological approach. Space can help us understand these entanglements as multiple, non-linear, loose connections that teachers bring together when they achieve agency. Our data makes visible examples of teachers identifying spaces of agency and also teachers moving between these different spaces when seeking to achieve agency.

Secondly, we argue that space furthers our understanding of the temporality of agency. The temporal dimension of agency is already explicit in the ecological approach to teacher agency (Priestley et al., 2015). However, through the spatial dimension, Massey (2005) understands time and space as inherently entangled: space cannot be space if it is not the product of multiple relations as part of an open system. Through space we not only understand the temporal dimensions of agency as past, present and future, but we understand agency as simultaneous multiplicity, where these temporal dimensions are also messy and juxtaposed and where connections between these dimensions are yet to be made. Arguably, at the beginning of a teachers' career, agency will be experienced as more ephemeral than emergent, likely to be only fleetingly visible to ECTs, as they seek to establish themselves within established professional communities who, as Pantić and Florian (2015) describe, exercise collective agency. The concept of space further underlines that the temporal nature of agency is rarely linear. In this way, spaces of teacher agency can be understood as something like a palimpsest, where the agency is reused or altered in a new construction of space but still bears visible traces or characteristics of its earlier form. Danny's palimpsest of agency achieved through his version of Eco-club includes traces of spaces of interrelations and plurality, whereas Paul's has the visible marks of a *place* that is singular and not rooted in ideas of spaces with multiple trajectories.

Thirdly, we contend that space helps us further understand conceptualisations of teacher agency as a phenomenon. Through this case study, we have shown that in some cases, teachers are able to move between and create spaces of agency by drawing on different cultural, material and relational resources. For example, Danny, Lucy and Paul were able to achieve agency through pastoral roles such as the form tutor and in the context of extra-curricular activities such as a summer school and Eco-club. During inevitable periods of challenge that teachers experience at the beginning of (and sometimes throughout) their professional lives, understanding that there are different spaces where teacher agency can be achieved may provide an additional scaffold. Therefore, conceptualisations of space help us make visible the ways in which teachers can achieve agency and arguably, this may help us better understand the support which (beginning) teachers require. For example, teachers, particularly beginning teachers engage in multiple different spaces at the beginning of their careers. These include university spaces and a range of school placements or contexts in their PGCE year, and further spaces of mentoring and responsibility during their years as an ECT. Mentors have a crucial role in making explicit the different spaces through which teachers can achieve agency that includes but goes beyond the formal classroom. Drawing on the experiences of Danny, Lucy, and Paul, we argue that with support including opportunities for teachers to reflexively evaluate their practice, teacher agency enacted in one context can provide a strong foundation on which to establish teacher agency in another, perhaps more challenging space.

The spatial dimension of teacher agency and the wider policy context

We argue that the spatial dimension of teacher agency is important to consider given the policy context of ITE in England, which has seen a series of reforms over the last decade or more. A key aim of these reforms has been to increase regulatory control over the ITE sector through centralised curricular and a focus on 'accountability' and 'professional standards' (Alexander & Bourke, 2021; Churchward & Willis, 2019; Mutton et al., 2017) which are consistent with policy reforms beyond England. For example, the 'accountability agenda' visible in ITE reforms in England (Ellis et al., 2019; Mutton et al., 2021; Towers et al., 2023) are also visible in Australia (Alexander & Bourke, 2021) and the United States (Fuller & Stevenson, 2019). Critics of these reforms contend that the constriction of ITE curricular has led to the de-professionalisation of teachers (Dwyer et al., 2020) and has done little as yet to address the crisis in teacher recruitment and retention in England (Ovenden-Hope, 2023). The latter point is particularly pertinent as the ECF was introduced in 2019 as part of the government's Teacher Recruitment and Retention strategy (DfE, 2019c). We recognise that the ECF, introduced in September 2021 is in the first phase of national implementation which also comes at a time when the ITE sector continues to respond to a series of challenges not least the aftermath of a global pandemic and sector-wide industrial action. Therefore, considerations of the effectiveness or otherwise of the ECF as part of a teacher recruitment and retention strategy are necessarily complex and not the focus of this article. However, we do argue that policymakers, as part of their reflections on the first phase of the ECF's implementation, attend to the importance of space and the spatial dimension.

Key questions to consider include: How can the implementation of the ECF increase, alter or diminish spaces of teacher agency for beginning teachers? In what ways does the ECF enable, reduce or enhance teachers to identify, move between and create spaces of agency? We argue that policies that seek to constrain, or control, for example through centralised and rigid curricular, will likely result in reduced spaces for those at the beginning of their careers to achieve agency and may well exacerbate the teacher retention crisis. As similar accountability-focused policies have begun to be implemented (although perhaps to a lesser extent) beyond anglophone contexts including for example Norway (Mausethagen et al., 2021) and Brazil (Lennert

da Silva & Mølstad, 2020), the findings from this study of teacher agency may have relevance for teacher educators and researchers working within higher levels of regulatory control. And yet, given the messy and entangled nature of space, such policies may simultaneously provide a range of spaces, which have varied influences on teacher agency. Indeed, not only is such simultaneous variation evident in wider research, but research has also underlined the limits of policy in shaping teachers' practice. For example, Maaranen and Afdal (2022) draw on the varied policy contexts for teachers in Finland (no or little control), Norway (medium control) and the US (high control and external accountability mechanisms) to consider how teachers negotiate their professional space. Maaranen and Afdal (2022) found that across all three contexts, teachers' professional space included multiple domains at different scales (e.g. classroom, school, national context) which was shaped by external factors (e.g. policy) and internal factors (e.g. individual professional experiences). However, these internal factors were found to be more influential than external factors, even in the high-control context of the USA, and were predominantly focused on teachers' individual professional reasoning and decision-making rather than by a wider professional community (Maaranen & Afdal 2022). It is perhaps notable that the teachers who contributed to the study led by Maaranen and Afdal (2022) had a minimum of four years of teaching experience, ranging up to 30 years, whereas the research we share here focuses on teachers at the outset of their careers. This further underlines the complex nature of teacher agency and the range of factors, including spatial, temporal, internal and external, by which it is informed and shaped. Finally, further research is needed to continue to explore the relationship between space and teacher agency and how achieving agency shapes and is shaped by spatial dimensions. Through this small case study from England, of three geography secondary school teachers at the being of their careers, we contend that teacher agency and space have a dynamic and almost symbiotic relationship. We recognise that this study includes a small number of participants, located in one geographical context, and focuses on teachers at the beginning of their careers. Building on comparative research such as Maaranen and Afdal (2022) and Lennert da Silva and Mølstad (2020), future studies could consider whether such a relationship extends across the professional lives and careers of teachers or is as relevant for teachers of all subjects and age-phases across a range of educational contexts.

CONCLUSION

Our research has indicated the importance of considering spatial dimensions of teacher agency alongside the widely recognised conceptualisations of an ecological approach to teacher agency (Priestley et al., 2012, 2015). Although this research centres on three ECTs who completed their PGCE at one ITE institution in collaboration with partner schools, we argue that the findings of this research can inform other explorations of teacher agency both in the UK and beyond. We provide some final reflections and implications from our research of relevance to the wider teacher education community.

Firstly, we argue that the spatial dimension of teacher agency can contribute to further conceptualisations of teacher agency. The spatial lens, as articulated by Massey (2005) can further our understanding of where and how teachers achieve agency, it can help us to unpick the multi-layered and messy barriers which individuals experience, and which structures and systems create. Space helps us understand the non-linear entanglement of the cultural, material and relational conditions and qualities of agency made explicit in the ecological approach. Furthermore, the spatial lens helps us further understand agency as a phenomenon, where teachers identify, move between and themselves create spaces of agency. Future research that draws on theorisations of space to understand teacher agency as a phenomenon may help us reconsider the support and resources that individuals require as part of a community of practice if they are authentically to achieve teacher agency throughout their careers.

Secondly, we argue for the urgent need for policymakers in England to reflect on the way in which the ECF may inhibit as well as provide the structures through which teachers can achieve agency. Explicit discussions of the ECF were limited across the series of interviews analysed as part of this research. However, where the ECF was visible, for example in Lucy's ECT 1 interview (Table 2, Theme 1d) both Lucy and her mentor experienced the constrained scripts as a barrier to agency rather than an enabler of agency. Consistent with Ovenden-Hope (2023), we argue that as the first phase of implementation is completed in summer 2023, this provides a clear opportunity for further development and that this development should be authentically informed by both mentors and ECTs.

Finally, we reflect on the affordances of small-scale research studies that accompany participants over the course of key periods of their professional lives. Such studies require little in terms of financial resources. At the same time, iterative and careful considerations of professional trust and ethics are necessary, especially when researchers and participants negotiate multiple roles and professional relationships together and over time. These series of interviews have created further opportunities for professional reflection for both the ECT participants and the teacher educator who led the research. Arguably, the series of interviews could themselves be understood as co-constructed spaces where teacher agency is identified, considered and reimagined.

CONFLICT OF INTEREST STATEMENT
No potential conflict of interest was reported by the authors.

DATA AVAILABILITY STATEMENT
Research data are not shared.

ETHICS STATEMENT
Institutional ethical approvals were obtained prior to the commencement of this study.

ORCID
Elizabeth A. C. Rushton https://orcid.org/0000-0002-6981-8797

ENDNOTES
[1] In England, since 2021, early career teachers or ECTs refer to those in the first 2 years of their career, post-qualification.

[2] The Office for Standards in Education, Children's Services and Skills (Ofsted) is a non-ministerial department of the UK government that is responsible for inspecting a range of educational institutions.

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