

## **How is geography rendered visible as an object of concern in written lesson observation feedback?**

Whilst the significant role mentors play within ITE has been emphasised in English policy context (DfE, 2016), there appears to be limited consideration of subject-specificity of mentoring practices within the literature. One key mechanism for trainee teacher development is written lesson observation feedback, but there is concern that it is often generic in nature. In response to this, our research explores the ways in which geography teacher educators' curricular theorising is rendered visible through written lesson observation feedback. This paper reports on the interplay between teacher, student and content apparent within lesson observation feedback and the ways that geography teachers incorporate a focus upon subject within their mentoring practices. The project, an interpretive case study, collected data through a lesson observation activity and whole group discussion. Results suggest that the interplay between teacher, student and content within written lesson observation feedback often draws on subject-specific pedagogical approaches and stimulates mentor/trainee dialogue that has the potential to provoke wider curricular thinking around the 'what and why' of teaching. However, further research is needed to gain a contextualised understanding of mentoring practices, including exploration of the role of mentors' own subject expertise, given the significance of this in guiding their professional practice.

Keywords: initial teacher education, school geography, mentoring, subject knowledge, curricular theorising, lesson observation feedback.

## Introduction

The significance of mentoring is increasingly recognised within the policy context of England through references to school-based mentoring in the Carter Review (2015) and the introduction of the Department of Education (DfE)<sup>1</sup>'s (2016) 'National Standards for school-based initial teacher training (ITT) mentors'. The UK Government has also stated a commitment to subject-specificity within Initial Teacher Education (ITE) in England within various policy documents that stress the need for ITE to address subject knowledge development and subject-specific pedagogy (Carter, 2015). In the English context, since the 1990s there has been a 'pendulum swing' (Murray & Mutton, 2016) towards 'school-led' teacher preparation routes, evidenced through the DfE's (2010) white paper on 'The Importance of Teaching' and the UK Government's independent review of Initial Teacher Training (ITT) (Carter, 2015). Mutton, Burn and Menter (2017) suggest that this is illustrative of an international "practical turn in teacher education" (Mattsson, Eilerston & Rorrison, 2011, p. 17) which increases focus on the amount of in-school experience within ITE (Darling-Hammond & Lieberman, 2012; Darling-Hammond, 2017). Within this complex ITE landscape, which includes school-based ITE programmes, there is a growing concern that trainee teachers are not being given sufficient subject-focus within their training year (Tapsfield, 2016). For example, research conducted by the Geographical Association (GA) found that subject-specialist instruction for geography trainees is highly variable with fewer than 30 hours in one School Centred Initial Teacher Training (SCITT), through to over 200 hours in an HE-led partnership (Tapsfield, Roberts & Kinder, 2015). This varying context exemplifies a need to more thoroughly explore the place of subject-specificity in mentoring practices

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<sup>1</sup> Department for Education (DfE) is a department of Her Majesty's Government responsible for child protection, education, apprenticeships and wider skills in England.

within geography teacher education.

One key mechanism for trainee teacher development is lesson observation feedback, whereby mentors (or other departmental staff) observe a trainee teaching and provide written feedback. However, there has been sustained concern that lesson observation feedback can often be generic, with a focus on the logistics of lesson structure and classroom management (Spear, Lock & McCulloch, 1997; Lock, 2002; Roberts, 2010; Puttick, 2019); this might hinder capacity for dialogue between mentors and trainees to support reflective practice in geography teaching (Brooks, 2017). Whilst there is a relatively substantial knowledge base around mentoring (Hobson, Ashby, Malderez, & Tomlinson, 2009), the available literature often does not always take account of the place of the subject being taught with mentoring practices and research (Counsell, 2012). In response to this, we have undertaken research to explore the ways in which subject is rendered visible in written lesson observation feedback, using geography as the subject context. We acknowledge that our focus on subject-specificity sits within the broader context of ITE debates established since the 1980s in relation to teachers' expertise and the ideographic, contextual nature of both teaching and mentoring (Hagger & McIntyre, 2000). For example, attention has been given to the personal nature of teachers' professional learning and practice (Munby, 1990; Connelly, Clandinin & He, 1997), and how beginning teachers might best learn from experienced teachers' practice (Hagger, 1997; Hagger & McIntyre, 2000). Consideration of the scholarship of teaching and learning (Hutchings & Shulman, 1999; Kreber, 2002), Shulman's (1986; 1987) influential characterisation of teacher knowledge, and efforts to illuminate how teachers use their subject knowledge (Gudmundsdottir, 1991) have all contributed to understanding how teachers' expertise is shaped within and beyond ITE.

### ***School-based mentoring***

In considering the effective development of school-based mentoring, the Carter Review (2015) highlights the importance of subject expertise within ITE, in particular the need for mentors to have a secure grasp of subject-specific pedagogy (termed ‘pedagogical content knowledge’ by Shulman [1986]). As such, it appears important to connect this requirement with the call for mentors to be developed in ways that enable them to “deconstruct and articulate their practice” (Carter, 2015, p. 41), as this should be shaped by and reflect the significant role subject expertise plays within teachers’ professional practice (Brooks, 2016). Garrigan and Pearce (1996) reiterate this point, suggesting that successful mentors are not just teachers that hold such subject expertise, but teachers that are able to make their underpinning professional knowledge accessible for trainees. This focus upon professional practice has implications for the subject-specific nature of mentoring, in particular how mentors and trainees navigate the theory-practice divide. As Fordham (2016) and Lambert (2015; 2018) articulate, teaching is not a generic activity and therefore any concern for mentoring and trainees’ teaching practice must be one that takes account of the subject being taught. Brooks (2017) has more thoroughly explicated what this means for ITE, arguing that trainees need to be supported to develop a subject-specific approach to understanding pedagogy. This has been reflected across different curricula contexts; for example, McIntyre and Jones (2014) emphasise that English teacher educators need to hold in mind the dynamic nature of their subject and its pedagogies, whilst Becher and Orland-Barak (2018) argue that contextual factors significant to the particularities of art teachers’ subject domain play a significant role in mediating the way mentors reflect on their teaching and mentoring and, therefore, are worthy of greater attention in both mentor preparation and development.

Alongside this attention to subject knowledge and subject-specific pedagogy, there has been debate as to the role of research within ITE (BERA-RSA, 2014) and more recently a call to move towards research-informed teacher education communities where all participants, including school-based mentors and trainees, are enabled to engage with research (La Velle & Kendell, 2019). However, Lambert (2018) highlights that much discourse around research engagement holds a curricular blind spot, supporting Burn's (2016) suggestion that generic research findings often do not address the concerns of subject-specialist teachers. In response, Healy (2019) explores how this blind spot can be addressed through recognition of the role of subject scholarship in developing teachers' curricular thinking. This builds on Counsell's (2012) work which illuminates the significant role history education scholarship can play in supporting mentors and trainees in their professional decision-making around lesson planning and evaluation and reinforces the importance of subject within mentoring practices. Professional decision-making is also foregrounded by Jones and Straker (2006), as they suggest that lesson feedback is a mechanism through which professional knowledge can be "constructed, deconstructed and reconstructed" (p. 167), thereby providing the opportunity for mentoring practices to overcome the theory-practice divide. This is further illuminated by Brooks, Brant, Abrahams and Yandell (2012) whose survey of the changing perception of Master's level study during a PGCE course found that teachers' perspectives within mentoring departments has a significant role in shaping trainees' perceptions of this divide and the broader value of theory for practice. Echoing work by Counsell, Evans, McIntyre and Raffan (2000), Brooks et al. (2012) suggest that for trainees to be able to understand the symbiotic link between theory and practice there needs to be further attention to how the theory-practice divide manifests itself in mentoring practices, such as lesson observation feedback, and how this might be

mediated by subject-specificity. Beyond the theory-practice divide, it is necessary to examine the different pedagogical approaches that can be taken within ITE practice and their relationship with subject. For example, Brooks (2017) proposes that mentors need to hold a pedagogical approach that is underpinned by an understanding of what they hope to achieve and their own understanding of their discipline. Drawing upon Moore's (2004) distinction between the discourses around good teaching, Brooks (2017) suggests that this fits within the notion of a 'reflective practitioner', whereby trainees and mentors continually reflect on their curricular and pedagogical decision-making, which also emphasises the role of the subject at the heart of mentoring and ITE. The notion of reflective practice originates from the work of Schön (1983; 1987), which is characterised by a focus on professionals reflecting on their experience in order to understand their actions and consequences arising from them. Reflective practice has been critiqued and moved forward by recognition that such reflection needs to be purposeful and informed by a theory of practice (Eraut, 1994; McIntyre, 1994). Further, Brooks (2017), citing Bellamy (2014) and Fejes (2013), highlights the potential for power relations between mentor and trainee to make reflective practice problematic, particularly when used as a form of assessment. Brooks (2017) emphasises how the subject consideration is central to realising the opportunities of reflective practice; for example, she proposes that beginning teachers need "critical engagement with what it means to learn to think geographically" (p. 49) in order to reflect on geographical learning in the classroom.

### ***Written lesson observation feedback***

Several studies have found that lesson observation feedback is one of the most valued aspects of mentoring by trainees (e.g. Foster, 1999; Hobson, 2002). Perhaps as a result, there has been substantial attention given to oral lesson feedback, with attention to

variability in its quality across mentor communities with a focus on secondary contexts (e.g. Timperley, 2001; Hudson, 2010; 2014). Beyond this, we suggest that written lesson observation feedback is worthy of focus because of the enduring record it provides, which appears to be valued by trainees (Monk & Dillon, 1995, Soares & Lock, 2007), as well as the fact that it often forms the basis for post-lesson dialogue (Maloney & Powell, 1998). However, a number of concerns have been expressed surrounding the quality of written lesson observation feedback, particularly in terms of consistency across ITE partnerships. For example, while Maloney and Powell (1998) suggest that mentors' written reflections form a basis for post-lesson discussions, one might question the extent to which this is, in reality, a dialogue between mentor and trainee. If, as Hattie and Timperley (2007, p. 81) describe, feedback is "information provided by an agent...regarding aspects of one performance", there may be limited scope for this professional learning to be framed as a "co-construction of ideas for teaching" (Lofthouse, 2018, p. 255) within the subsequent dialogue between mentor and trainee. This is significant in terms of a longer-term view of ITE whereby trainee teachers are supported to develop as 'reflective practitioners' to sustain their own professional learning throughout their careers (Brooks, 2017; Lofthouse, 2018). However, this perspective of reflective practice as facilitating collaborative approaches to professional learning between mentors and trainees may be limited by the power dynamic at play between them. Hobson and Malderez (2013) argue that judgmental mentoring, or 'judgementoring', occurs when a mentor reveals "too readily and/or too often her/his own judgements on or evaluations of the mentee's planning and teaching" (p. 90). This is reiterated by Manning and Hobson (2017) who suggest that judgmental approaches to mentoring are evident through 'mentoring moves' (Feiman-Nemser, 2001); for example, giving strong advice within lesson feedback can be restrictive and

disempowering, whereas the use of open and probing questions prompts more reflective responses from beginning teachers.

Puttick and Wynn (*forthcoming*) have recently explored whether a vision in which trainee teachers are supported to develop as ‘reflective practitioners’ to sustain their professional learning is realised by examining how ‘good teaching’ is constructed through written lesson observation feedback across one ITE programme. Using Winch, Oancea and Orchard’s (2015) conceptions of teaching as a framework, they found that teaching is characterised in craft or technical terms within lesson observation feedback, as opposed to the conception of the teacher as an extended professional (Winch et al., 2015), and appears to conflict with an approach to mentoring that enables teachers to be reflective practitioners (Moore, 2004; Brooks, 2017). Puttick and Wynn (*forthcoming*) substantiate these claims by drawing attention to the epistemological certainty evident in written feedback and the reliance of the authority of the observer, proposing this should be tempered to open up space for “deep critical deliberation and thoughtful practice” (Lambert, 2015, p. 26). They further stress the need to explicitly consider the purpose of lesson feedback, for example questioning whether: “the purpose of written lesson observation feedback is to extend the student’s critical reflections through identifying relevant readings? Or to relate specific discussions about classroom practices to broader debates in educational research?” (Puttick & Wynn, *forthcoming*). This is not a new idea; for example, Orland-Barak and Rachamim (2009) have proposed that research literature can be used to enable trainees to reflect on their lessons from a different perspective, and Jones and Straker (2006) emphasise that a ‘reflective-reflexive approach’ to mentoring is needed so that trainees are enabled to engage with the wider communities of practice. More specifically, Brooks’ (2017) calls for mentors to support trainees to develop a subject-specific approach to pedagogy through both



practice-based and reflective tasks. There seems to be, therefore, consensus around a clear imperative for all those involved in teacher education to critically reflect on the purpose of written lesson observation feedback and how it serves trainees, including its subject-specific dimension. This is explored more deeply within the next section.

### ***Subject-specificity in lesson observation feedback***

Despite trainees valuing subject specificity in written lesson feedback (Soares & Lock, 2007), it has been argued that such feedback can often be generic in focus (e.g. Lock, 2002; Lock, Soares & Foster, 2009; Puttick, 2019). Where subject is considered, Puttick (2018) suggests trainees are often positioned as either knowing or not knowing subject knowledge. Perpetuated by the language of the Teachers' Standards in England, this problematic binary appears to be at odds with the notion of teachers needing to sustain their subject expertise throughout their career (Lambert, 2015; Brooks, 2016; McIntyre & Hobson, 2016). However, Soares and Lock (2007) found that with training and guidance around subject-specificity, mentors were able to develop their written observation to include a more significant focus on the subject being taught. More broadly, whilst, Counsell (2012) does not focus solely on lesson observation feedback, she explores the subject-specific dimension of mentoring practices. In particular, using fortnightly reading themes across a history ITE partnership, she found trainees were able to draw on history education scholarship to help them make sense of what was happening within their classroom (Burn, 2016); this enabled them to reflect on how they could more meaningfully construct historical learning for their students in future lessons. This would appear to highlight how Puttick's (2019) call for such integration between theory and practice is not merely normative but does reflect mentoring practices within some ITE partnerships.

Examination of the literature, therefore, suggests that despite written lesson observation feedback being valued by trainees (Hobson et al., 2009) and perceived as a mechanism to integrate theory and practice (Puttick, 2019), its subject-specific dimension has been neglected (Soares & Lock, 2007; Puttick, 2019). Government rhetoric stresses the importance of subject within ITE, and yet the *in situ* development of subject-specific practice appears, as of yet, underexplored. The broader aims of this research are to address this gap by considering how mentors might support trainee teachers to develop their subject knowledge and pedagogical content knowledge through exploring how the subject is incorporated into written lesson observation feedback. This paper reports on one strand of our research, which addresses the following research questions:

- (1) How do the relations between teacher, student and content manifest within written lesson observation feedback?
- (2) In what ways do observing teachers incorporate a focus on subject within their lesson observation feedback?

## **Research Design**

### ***Context of the study***

The research is situated within a constructivist epistemological framework as an interpretive, multiple methods case study (Crotty, 2003). It was undertaken with geography teacher educators from across two contexts. The first group of 18 geography mentors was from a Higher Education (HE) led ITE programme and took place in the context of a biannual geography mentor training day. The second group comprised 20

Geography Teacher Education (GTE) conference participants consisting of a wide-range of stakeholders within geography ITE, including geography teacher educators leading school- and HE-led ITE programmes across the UK, and retired geography teacher educators. Research with this second group took place within a workshop session at the annual GTE conference. These contexts were selected to represent the diversity of ITE provision, but they also represent groups with whom the researchers regularly work (purposive, convenience sampling). We followed the BERA Ethical Guidelines (2018) to inform project planning and management of ethical risk. For example, informed consent was obtained from all participants; this involved providing participants with a participant information sheet outlining the purpose of the research, the time that would be involved, and issues concerning confidentiality, consent and their right to withdraw from the project at any time.

### ***Methodology and Methods***

A number of research methods were undertaken to explore how observing teachers incorporate 'subject' into their lesson observations.

#### ***Written lesson observation feedback***

The two participant groups were shown excerpts of video from two separate geography lesson taught by Recently Qualified Teachers (RQTs): the first six minutes of a Year 9 lesson (Teacher 1); and the final eight minutes of a Year 12 lesson (Teacher 2).

Participants were asked to write lesson observation feedback as they watched the lesson excerpts with an explicit prompt to consider geography subject knowledge. They were provided with an accompanying full lesson plan so that they could see how the excerpts

of the lesson observed fitted within the context of rest of the lesson. Lesson observation within ITE can involve greater collaboration between the mentor and beginning teacher, especially when there is co-planning and review, such as within the context of lesson study (Cajkler & Wood, 2016) or a peer coaching model (Lofthouse, 2018). However, within this research it was simply a written reflection by the research participant on the recorded lesson excerpts, so more closely mirrored a situation without incorporation of this collaborative dimension of co-planning and review.

Becher and Orland-Barak (2018) suggest that contextual factors can influence approaches to both subject-specialist teaching and mentoring practices. In taking the lesson observations out of their original, situated context, we recognise that we created an artificial scenario within which to collect this data. In reality, written lesson observation feedback may be mediated by individual school culture, the relationship between mentor and trainee, and the contextualised knowledge of students that is held by the class teacher. Furthermore, there are significant aspects of mentor feedback that cannot be explored, such as how feedback relates to trainee targets and is informed by assessment of student learning (Timperley, Wilson, Barrar & Fung, 2007). However, recorded lessons have been used by other researchers to explore written feedback (e.g. Hudson, 2014) and Puttick (2019) found written lesson observation feedback co-written by university tutors and school-based mentors *in situ* appears not be as richly contextualised as expected. So, whilst we acknowledge the limitations, the recorded lesson excerpts formed a suitable approach to address our research questions.

### *Discussion following lesson observation activity*

After each lesson excerpt, participants were asked to share any initial thoughts within a whole group discussion (which was recorded and transcribed); they were prompted to focus on geography subject development, but the discussion was not constrained by the researchers. This discussion also enabled participants to share in more detail about how the lesson observation feedback might be drawn upon and used within their mentoring practice.

### ***Data Analysis***

Lambert (2018) suggests that subject-specific didactics provides scope to frame educational research which holds concern for subject-specialist teaching and the role of subject knowledge within teachers' professional practice. The didactic triangle (Figure 1: Hudson, 2016) has been used to understand subject didactics and in particular illuminates the relations between participants in the teaching-study-learning process (Kanansen & Meri, 1999; Hudson 2016). In relation to this study, we suggest that this provides a framework to explore observers' subject-specific curricular and pedagogical thinking because it renders visible the interplay between subject, teacher and student constructed within written lesson observation feedback. With this in mind, data analysis of written lesson observation feedback and participant discussion comprised two stages: [Figure 1 near here]

- 1) To address research question 1 to consider how the relations between teacher, student and content manifest within written lesson observation feedback, analysis was undertaken using a set of *a priori* codes based upon the didactic triangle; within these, a process of open-coding allowed a set of categories to emerge from each

paired relation. Table 1 illustrates this coding template, along with exemplars of quotations coded for each category. Data was used from both the written lesson observation feedback and the post-lesson discussion. Whilst we acknowledge the limitations of this approach, particularly that the didactic triangle should be considered in its entirety, paired relations are often considered separately (e.g. Kansanen & Meri, 1999; Hudson, 2016). Using these relations to frame our analysis allowed us to examine manifestation of subject through individual components of the teacher-student-content relationship, as well as providing a basis for subsequent, more holistic discussion.

- 2) To address research question 2 and explore the ways in which observing teachers incorporate a focus on subject within their lesson observation, analysis of all data was achieved using an inductive approach to thematic analysis. Data was used from both the written lesson observation feedback and the post-lesson discussion. This process of open-coding allowed a set of categories to emerge from the data; it was iterative in nature and undertaken a number of times to increase validity of the coding and blind as to the identity and context of the participant.

[Table 1 near here]

## **Findings and Discussion**

This section firstly considers the themes emerging from the relations between teacher, student and content within written lesson observation feedback and discussion with research participants to address research question 1. It then moves on to explore research question 2, taking a thematic approach to explore how geography teachers

incorporate a focus on subject within their lesson observation feedback.

***RQ1: How do the relations between teacher, student and content manifest within written lesson observation feedback?***

In order to explore this research question, we will draw upon the written lesson observation feedback alongside evidence from the discussions that took place following each lesson observation activity with research participants, using the relations between teacher, student and content as a framework for discussion.

*Pedagogical relation (between teacher and student)*

Within the pedagogical relation, two themes emerged. The first is characterised by the *absence of the subject* in which lesson feedback explores generic issues of pedagogy within the lesson. This tendency towards the generic reflects a number of prior studies (e.g. Lock et al., 2009); for example, observation notes included quotes, such as: “Good at probing answers, responding and summarising, developing answers” (Teacher 1, written lesson observation [WLO]), “Why hands up? Call on students who your heard discussing to develop a rich discussion/feedback” (Teacher 1, WLO) and “Good paraphrasing of students’ answers” (Teacher 2, WLO). From these quotes, the value of the geography teachers’ approach to questioning is not explicitly linked to the role it plays in *what* is being taught, as such it lacks concern for the curricular object the pedagogy is mobilising (Counsell, 2016). Whilst, we acknowledge that the observer might have held in mind concern for what is being learnt when they observed the lesson

clip, it is of interest that in its enduring written form this curricular object is not clear to those reading this feedback.

The second theme within the pedagogical relation is that of a *subject-specific pedagogical approach*. This was less commonly coded but seen as inherent either through comments on what we perceived to be geography education norms in pedagogy (for example, geographical enquiry [Roberts, 2003]), or because of the explicit reference to geographical content. For example, one observer wrote: “good use of open questions to help students to explore the people-nature relationship (the landscape)...” (Teacher 1, WLO). Unlike the reference to questioning in the earlier quotes, within this example the curricular object (the people-nature relationship), is foregrounded. Several of the participants highlight the significance of this engagement with curricular *what* and its role in shaping the *how*; for example:

I would say rather than describing what they could see, [students] should have been posing questions based on what they could see...the children should have actually considered why the people were living there in the first place before considering the challenges. Therefore, it is a whole different conversation. (Teacher 1, post-lesson discussion [PLD])

This point was further developed by a second participant to highlight how this curricular focus would drive the teachers’ questioning:

It is about their relationship with landscape, rather than a landscape determining what they can do. It might be that you end up with some communications, but it is about the nature of the questions and so there is an interesting thing about questions and how we structure those questions. (Teacher 1, PLD)



Another participant posed some questions: “What answers were you looking for when using these Qs? Why? Had you pre-identified misconceptions? Did you unearth any?” (Teacher 1, WLO). This looks at the questioning from another angle, but one that again is tied to the subject content being taught (the misconceptions). This highlights the significance of subject-specific approach to pedagogy, whereby the curricular object changes the nature of the feedback that can be given and opens up different avenues for dialogue between a mentor and trainee.

#### *Didactic relation (between student and content)*

Three themes emerged in relation to didactic relation – the way that observers articulated the relation between student and content, held in relation to the teacher. Firstly, comments by observers related to *thinking geographically*. This was sometimes done explicitly, for example: “How many students are thinking geographically?” (Teacher 1, WLO) and “Can you find a way for students to do the geographical thinking that you do?” (Teacher 2, WLO). This was also rendered visible through comments on how students might perceive and relate to content. For example: “Is this photo representative of the whole of India? How might this impact on student ideas of place? How could you have identified to the students that this is only a snapshot?” (Teacher 1, WLO). This point, alongside others, seemed to be drawing on the hinterland of how place is conceptualised by geographers; for example, consideration for how distant place was being represented, with attention to avoiding ‘othering’ and ‘stereotyping’ (e.g. Kennedy, 2011; Taylor 2014), and for how interpretations in relation to place are bound by time and space (Roberts, 2014), was apparent within both post-lesson discussions. The notion of ‘thinking geographically’ is frequently emphasised in

geography education scholarship (e.g. Jackson, 2006; Morgan, 2018); for example, Lambert (2017) argues that its distinctiveness underpins the rationale for geographical education and that “to introduce the world to students as an object of geographical thought requires pedagogic ingenuity for subject knowledge may otherwise remain unconnected and ‘inert’” (p. 20). Through their feedback, these observers appear to be responding to this challenge, considering how the subject can be taught with integrity, whilst enabling students to think geographically.

Secondly, observers commented specifically on *geographical terminology*. For example: “Lots of key words – do students understand these?”, “Good use of word ‘terrain – do all students understand this?” and “Can you try to get the students to use these words themselves?” (Teacher 1, WLO). Within geography education, it has been well acknowledged that students need to be able to decode and deploy subject-specific vocabulary (e.g. Walshe, 2017), but more recently there has been greater concern in practice for students’ security with subject-specific vocabulary due to the demands of new GCSE specifications; for example, specific geographical terminology has been noted in examiners’ reports as causing confusion for students (e.g. AQA, 2019; OCR, 2019).

Finally, we identified a small number of comments by observers relating to *how secure students are in their geographical understanding*. For example: “How secure were students in their understanding of key elements before moving on?” (Teacher 2, WLO). However, there was limited consideration by participants as to how formative assessment might have been used diagnostically to guide responsive teaching both within the lesson and in future lessons; this might be because of both the length of the teaching excerpts observed, and the lack of any contextualised knowledge of the students within the class.

### *Between teacher and content*

The final relation within the didactic triangle is the one that holds between teacher and content. Within geography education, there is much scholarship concerning the relationship between a teacher and their subject knowledge, both for trainee teachers (e.g. Walford, 1996; Mitchell & Lambert, 2015) and for experienced teachers (e.g. Brooks, 2007; Walshe, 2007; Puttick, 2015). Puttick (2018, p. 39) describes a tension between “having – and being judged to have – strong and secure subject knowledge, whilst also being self-critical”, and within our data we can see this apparent binary in subject knowledge is not only characteristic of the way trainees describe their own knowledge, but in the way subject knowledge is framed by school-based mentors within their written lesson observation (within the context of an HE ITE mentor training day). For example, written lesson observation feedback relating to Teacher 2 was dominated by evaluative comments around the teachers’ subject knowledge in 17 out of 18 of the school-based mentors’ feedback: “Clear evidence of secure subject knowledge”, “Lots of excellent subject knowledge being shared”, and “Great subject knowledge”. In the context of Puttick’s (2018) research, it would appear that these mentors are subscribing to the notion that they must evidence secure subject knowledge in their lesson feedback. This may be problematic because it risks concealing any questioning or critical engagement around the substance of the geography lesson; this becomes apparent when contrasting this with the challenge offered by GTE research participants. For example, inequality was a central concept to the year 12 lesson, yet almost all GTE observers suggested the conceptualisation was “inaccurate and complete” (Teacher 2, WLO), one adding “Be careful – inequality is complex – you only seem to be focusing on economic – what about social? Would focusing on specific examples be more useful?” (Teacher 2, WLO). In this way, the GTE participants seem to be supporting critical engagement

with the substance of the geography being taught, moving beyond “simplistic audit and gap-filling approaches to subject knowledge and instead encourage[ing] deep, critical and on-going engagements with their subject” (Puttick, 2018, p. 40). This is an important consideration for how mentoring dialogue in written form can provide scope for openness and collaboration in relation to the subject being taught, rather than be constrained by an approach that is driven by the national Teacher Standards (McIntyre & Hobson, 2016) as can be the case in school contexts where mentors hold a more evaluative role (Sirna, Tinning & Rossi, 2008).

***RQ2: In what ways do observing teachers incorporate a focus on subject within their lesson observation feedback?***

Three main themes emerged when analysing data to consider *how* teachers incorporate a focus on subject within their lesson observation feedback (RQ2): feedback as a stimulus for dialogue between trainee and mentor, engagement with lesson plans and sequences of lessons, and rationale for the teaching.

*Feedback as a stimulus for dialogue between trainee and mentor*

Throughout almost all written lesson observation feedback questions were posed which indicates that it would form a stimulus for subsequent dialogue between the observer and the teacher. In the post-lesson discussion with participants, the significance of how this dialogue was framed was explored; for example, one participant outlined that their “feedback is a series of questions” so that they could engage in dialogue, “because trainees will give you answers that provide insight into their thinking, so you can either say “it had not occurred to me that...” or you could unpick where they had done wrong”

(Teacher 2, PLD). Another participant agreed, suggesting the importance of talking to trainees following the lesson, because “what might seem odd to us, might have a perfectly rational reason in the students’ mind” (Teacher 1, PLD). In this way, participants were clearly demonstrating they have a “pedagogical approach” that has been developed in relation to their mentoring (Brooks, 2017, p.49), one which provides space for the “co-construction of ideas for teaching” proposed by Lofthouse (2018, p. 255). In many cases, at the forefront of participants’ minds is how their written lesson observation feedback would lay the foundation for subsequent dialogue with the trainee; this makes it clear that engagement with the subject will be beyond that exhibited within the written lesson observation feedback. Burn, Mutton and Hagger (2017) emphasise that it is important to “enable the trainees to identify and begin to address [their] developmental needs themselves” (p. 132), such that lesson feedback is providing opportunity for trainees to take ownership over the evaluation of their own teaching. Asking open and probing questions characterises a developmental approach to mentoring according to Manning and Hobson (2017) and provides scaffolding for beginning teachers to reflect-in-action (Schön, 1987). This is significant in terms of a longer-term view of ITE whereby trainee teachers are supported to develop as ‘reflective practitioners’ to sustain their own professional learning throughout their careers (Burn 2016; Brooks, 2017; Lofthouse, 2018). We propose that this highlights the need to better understand the relationship between written lesson observation feedback and the subsequent dialogue, in order to grasp how it might facilitate subject thinking.

### *Engagement with lesson plans and the lesson sequence*

Both in the post-lesson discussion and written lesson observation feedback, there was evidence of engagement with the teachers' lessons plans, both individually and as part of a sequence of lessons - the students' "geography journey" as one participant described. Framing this, one observer commented: "There is still a place for the lesson plan in written format because it allows a window to view their conceptual understanding." (Teacher 1, PLD). This is perhaps significant within a context in which individual lesson plans appear to be problematised in relation to workload and burdensome practice. Within the DfE's report "Addressing teacher workload in Initial Teacher Education (ITE): Advice for ITE providers" (Green, 2018), one of the questions posed to ITE providers is "How have you reviewed your provision to develop trainees to focus on planning a sequence of lessons rather than writing individual lesson plans?" (p. 4). Yet, here we found that lesson plans were perceived to be an important way of viewing the trainees' approach and underpinning curricular thinking. For example, "the language of the lesson plan...opens a way into her thinking" (Teacher 2, PLD). The fact there were written lesson plans enabled the observers to make comments about the "mismatch between the content and lesson objectives" (Teacher 2, PLD) and the fact that it became apparent that "she has attempted to attack a staggering amount according to the learning outcomes" (Teacher 1, PLD). Whilst another observer suggested this would also enable him to ask questions that would elicit what resources the teacher was engaging with: "Where did you get your objectives from?...Have you looked at the specification?" (Teacher 2, PLD). As such, it may be fruitful to consider how lesson plans can be used to inform subject-specificity within lesson observation feedback and post-lesson dialogue between mentors and trainees. If lesson plans appear to play a role in rendering visible a teachers' geography curricular thinking that supports

feedback and dialogue, then there needs to be greater consideration for whether their value within ITE is greater than the burden they may have in terms of workload and how this might be best mitigated.

### *Rationale for the teaching*

The third way that observers incorporate subject into their written lesson observation is through examining the trainees' rationale for what is being taught; this reflects Lambert's (2018) suggestion that "teachers are primarily knowledge workers who are – and should be – driven by questions of why their subject teaching matters and what their students are making of it" (p. 358). A significant number of participants incorporated curriculum-orientated questions into their feedback which encouraged the trainee to engage with thinking about the importance of their subject; for example: "What's your rationale for this lesson – why do your students need to understand this geography?" (Teacher 1, WLO) and "It is difficult to see what the geographical story is in this lesson" (Teacher 1, WLO). To consider this further, research is needed to understand how we can scaffold trainee teachers' curriculum thinking through written lesson observation and subsequent dialogue, and how we might support wider observers in schools (beyond named mentors) to do the same.

### **Conclusions**

This paper has sought to illuminate how geography curricular thinking is rendered visible within written lesson observation feedback by mentors and geography teacher educators, illustrating in particular how attention to the subject being taught can underpin feedback concerning the interconnections between teacher, student and

content. Whilst participant observer feedback incorporated the pedagogic (teacher-student), didactic (student-content) and teacher-content relations, the latter frequently appeared through superficial binaries of subject content being known (or not known), rather than any meaningful or critical engagement with conceptual disciplinary understanding. This suggests a need for mentors to develop the time and space for more critical reflection and thoughtful mentoring practice in order that they can better support the development of beginning teachers' identities as subject specialists (e.g. McIntyre & Jones, 2014; Mitchell & Lambert, 2015; Puttick, 2018). However, it also reiterates the need for teachers to sustain their own subject expertise throughout their career (e.g. Brooks, 2016; McIntyre & Hobson, 2016), such that mentors themselves have the skills and knowledge to develop their trainees in this way.

Despite the lack of explicit conceptual analysis on the part of some, most participant observers did consistently draw on subject-specific pedagogical approaches, supporting Lambert's (2018) suggestion that a central consideration for teachers should be "How do we best teach this subject?" (p. 367); to avoid neglecting the subject being taught, teachers' pedagogical decision-making should be connected more explicitly to curricular purpose. Observers in this study considered how the pedagogical approach appeared to serve students' geographical learning; for example, in their feedback questioning how teachers were supporting students to 'think geographically' or mobilise geographical terminology. Beyond the individual written lesson observation feedback, this study also highlights the interrelation between this feedback and wider mentor support; for example, participant observers frequently articulated that written feedback provided a foundation for dialogue with trainees, which would then enable them to take ownership over reflecting on their practice (Burn et al., 2017). These broader discussions have the potential to provoke wider curricular thinking that takes account of



the ‘what and why’ of teaching (Young & Muller, 2016; Lambert, 2018) through consideration of lesson plans, lesson sequences and subject rationale, thereby making space for consideration of Brooks et al.’s (2012) symbiotic link between theory and practice. However, further research is needed to consider how this might take place to develop trainee subject expertise. For example, exploration of the interplay of these components could provide insight into how beginning teachers can be supported to navigate what Rata (2016) calls a pedagogy of conceptual progression, whereby teachers mediate between the structures and systems of meaning of their subject (Winch, 2013), “their students’ differing levels of understanding” (Rata, 2016; p. 172), and the development of meaning-making in the context of student learning (Derry, 2014). Further, there is opportunity to reflect on how geography teachers use geographical knowledge throughout their ‘curriculum making’, moving beyond powerful knowledge as a curricula principle (Young, 2015; Muller & Young, 2019) towards understanding how curricular and pedagogical decision-making is enacted by teachers within the geography classroom for a particular set of students. While this study has gone some way to understand how curricular thinking manifests within written lesson observation feedback, our final suggestion is that further research is now needed to gain a contextualised understanding of mentoring practices through drawing upon *in situ* written lesson observations and the subsequent dialogue between mentors and trainees. As well as examining the role of subject within the mentoring practices, this should include exploration of the role of the mentors’ own subject expertise which plays a significant role in guiding their professional practice (Brooks, 2016). Priestley and Philippou (2019) suggest “curriculum is – or at least should be – at the heart of educational discourse and practice” (p. 2); as such, we propose that there needs to more attention to how teacher educators and mentors can develop mentoring practices that

place the subject curriculum at the heart of their work with trainee teachers. This is particularly significant within the English context with the recent publication of the Early Career Framework (ECF: DfE, 2019) which necessitates mentoring and development for early career teachers and yet which appears to neglect the significant of subject-specific support (Rowe, 2019). It is well established that subject-specialist teaching requires continued reflection and learning across a teacher's career (e.g. Cajkler & Wood, 2016; McIntyre & Jones, 2016; Brooks, 2016, Lofthouse, 2018). As such, for the ECF to deliver what it promises, we need better understanding of the mechanism by which mentors can support teachers (trainee or early career) to develop subject identity and understanding through and beyond written lesson observation.

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