

Improving the learning of newly qualified teachers in the induction year.

Linda Haggarty (The Open University), Keith Postlethwaite (Exeter University), Kim Diment (Exeter University) and Jean Ellins (The Open University)

Keywords: teacher induction, induction mentors, beginning teacher learning, mathematics teaching, science teaching.

Abstract

Newly qualified teachers of mathematics and science are a precious resource and it important that they are provided with appropriate support and challenge during their first year in post. This study examines the developing thinking and practice of a group of such teachers in England, and the influence of their mentors within the workplace context of the school. We argue that thinking and practice is restricted by the concern to 'fit in'; by the belief that behaviour management should be addressed before teaching can be developed; and by a lack of attention to the development of pedagogical thinking. We conclude that there is a need to change the beliefs and practices of induction mentors and develop their skills in discussing pedagogical ideas. This is most likely to be achieved within a school-wide culture of continuing professional learning.

Background to the study

Support for the induction of Newly Qualified Teachers (NQTs) is clearly seen as important, not least by policy makers. For example, the Training and Development Agency for Schools (TDA, 2007), argues that induction programmes should help NQTs 'develop the knowledge and skills gained during initial teacher training', should provide a 'framework for continuing professional development', and 'will help [NQTs] meet the core standards and become an effective teacher'.

After a period in which, in England, support for induction was less structured, a formal induction programme was re-introduced in 1999¹. Induction standards (defining the professional competencies expected of NQTs) were added to this programme in 2003. These induction standards were replaced in 2007 by a revised framework of professional standards which incorporated 'core standards' that NQTs are required to meet by the end of their induction period (TDA, 2007). In their induction programme, NQTs will have an individualised programme of monitoring, support and assessment which is designed to build on the strengths and development priorities that were identified during their initial teacher education, and recorded in their Career Entry Development Profile (CEDP). They will teach a reduced timetable (90% of the teaching load of a more experienced classroom teacher) and will work with an induction tutor who will:

provide support, review...progress towards meeting the standards, set objectives, and plan and monitor development opportunities

(TDA, 2007, 3)

They will observe other teachers and be observed in their own teaching. They will have access to a contact person in the Local Authority (LA) to whom they can refer in the event of disagreements with their school about the induction process. Their headteacher will report the outcomes of the induction process to the LA which is formally responsible for deciding, in light of the head teacher's report, whether the NQT has met the core standards. The LA is also responsible for supporting schools in the provision of induction (a responsibility that is often fulfilled through providing training for the established staff involved and training sessions for NQTs).

Government in England clearly saw induction as part of a systematic approach to new teachers' continued learning. This was expressed in its intention to make teaching a Masters level profession

¹ Similar schemes, under different regulations, apply in other parts of the United Kingdom

(DCSF, 2007), with a Masters in Teaching and Learning (MTL) targeted at teachers in the first 5 years of their careers:

...building on ITT and induction. We must ensure that the MTL provides significant additional support to teachers through induction and the early years of their career by providing a better structured approach to their early professional development.

(DCSF, 2008, 13)

The TDA (no date) argue that the benefit for schools of this intention will be 'the impact on pupil outcomes and the opportunity to enhance the culture of professional learning in the workplace' (p1). They further argue that in-school coaches will be 'trained' so that they have 'a clear understanding of what constitutes good quality professional learning in the workplace, and the role of the coach in that learning' (p1) Implicit in this guidance, and in press releases, is that NQTs, with the help of their induction tutors (together with those studying for a MTL qualification with the help of their coaches) will be able to transfer what has been learnt from ITE into the workplace setting of the school or at least to draw on that to enrich their thinking.

Eraut (2004) has shown that transfer, in this case from ITE to the school as a workplace setting, is much more complex than commonly perceived. Typically, he argues, it involves five interrelated stages:

1. the extraction of potentially relevant knowledge from the context(s) of its acquisition and previous use;
2. understanding the new situation - a process that often depends on informal social learning;
3. recognizing what knowledge and skills are relevant;
4. transforming them to fit the new situation;
5. integrating them with other knowledge and skills in order to think/act/communicate in the new situation.

(Eraut, 2004, 256)

This provides valuable insight (though it assumes that the 'new situation' is a stable one and that it is only the practice and thinking of the incoming professional that needs to change, whereas perhaps we should expect the 'situation' to be open to change too). Even without an expectation for such systemic change, Eraut's model requires a sophisticated understanding of NQT learning on the part of the induction tutor, and requires them to spend significant time with the NQT if it is to be accomplished. However, research on the transition from ITE to induction suggests that these requirements may not always be in place. In the past, research has highlighted clear discontinuities in learning between ITE and induction (Furlong and Maynard 1995; Koetsier and Wubbels 1995; McNally et al. 1994). In relation to the current induction regime, this is reinforced by Hobson et al (2007) who have suggested that successful transition requires induction tutors and mentors² to be more familiar with what preparation for teaching had been experienced in ITE. In the past Little (1990) and McIntryre et al (1994) have drawn attention to a different problem. This is the focus on utilitarian purposes during induction: orientation to school settings; curriculum information; organizational arrangements; technical assistance; support with resources; or the assessment of performance. Again, more recently this is reinforced by Harrison (2001) who has identified a mechanistic and shallow approach that is taken to mentoring. The focus on the practical and the utilitarian has also been given renewed emphasis by Dymoke and Harrison (2006), Tickle (2000), and Furlong (2005) who have argued that the standards approach may well have the effect of stultifying professional development by linking NQT induction too closely to school performance management, and by requiring teachers to demonstrate competence at complex tasks rather than recognizing complexity and the need for continuing development in the face of uncertainty about those tasks. In a systematic

² The terms 'induction tutor' and 'mentor' are sometimes used interchangeably with 'induction tutor' being a common term in English policy documents, and 'mentor' being a common term in the international literature (eg EURYDICE 2009). Parkinson and Pritchard (2005) suggest that NQTs should have support from two experienced teachers: an induction tutor who has limited day to day engagement with the NQT but oversees their induction and completes the associated assessment, and a subject mentor who provides the day to day support. We have used this distinction where relevant in this paper, though our NQTs often used the term 'mentor' to refer to both roles.

review of the impact of induction, Totterdell et al (2004) argued that there is 'a shortcoming in the corpus of research' in this area.

So there is a significant intellectual task to be undertaken (by new teachers and their induction tutors/mentors) if continuing professional development is to be achieved when ITE students become NQTs. At the same time, however, it is recognized that the transition from teacher education to the first teaching job can be a dramatic and traumatic one for NQTs. This is often referred to as the 'reality shock', which arises as the NQT engages with the assimilation of a complex reality which forces itself incessantly upon them, day in and day out (Veenman, 1984). The NQT not only has to teach during this period but also has to learn to teach within a particular workplace setting and with particular colleagues. Little (1990) distinguished between emotional support that made NQTs feel comfortable given this 'reality shock' and professional support that fostered a principled understanding of teaching. She argued that current practice failed to recognise that mentoring lay, not in easing NQTs entry into teaching, but in helping them to confront difficult problems of practice and using their teaching as a site for learning. As a result, participating in a serious mentoring relationship might actually make the first years of teaching more strenuous in the short run while promoting greater rewards for teachers and students in the long run (Feiman-Nemser, 2001, 18).

In the face of these complexities, theoretical models of teacher learning are essential in guiding practice and research on that practice. In the 1980s, the dominant models of teacher learning included apprenticeship (Zeichner 1980; Beyer 1988), and reflective practice (Schön 1983; Zeichner and Liston 1987; Calderhead and Gates 1993). These models are now being challenged, extended and enriched by arguments from Edwards et al (2002) that teacher education should embrace an epistemology "based on the notions of 'lived uncertainty' and the 'collaborative professional'" (p8), by aspects of Vygotskyan social constructivism (Richardson 1997), and by cultural models of learning – particularly the notions of habitus, field and capital which such models draw upon (Bourdieu 1977; Bourdieu and Passeron 1990; Hodkinson, Biesta, and James 2004). They are also extended by Activity Theory (Engeström 1995; Cole 1996; Engeström 2001; Engeström, Miettinen, and Punamäki 1999) and ideas about communities of practice (Lave and Wenger 1991; Wenger 1998) where learning is intimately related to belonging. Engeström's strand of Activity Theory is, at one (possibly rather superficial) level, consistent with the other cultural models of learning. However it places at the centre of consideration the activity in which participants are engaged, rather than the community to which the newcomer aspires to belong. The focus is on activity that is enacted to bring about *systemic* rather than simply individual change - though internalised individual change may be one consequence (Kaptelinin and Nardi 2006). It also directs attention to how learning is constructed *within* a given context (eg how teachers' own learning is constructed when they are teaching pupils in their classroom, and how it is constructed when they meet with their induction mentor), and how it is transferred and transformed as the teacher moves *between* these different contexts

This emphasis on learning within and across contexts is essential (Peressini et al. 2004): each context determines what learning is possible and what is difficult, and influences what will count as 'good learning' (Greeno, Collins, and Resnick 1996). In addition, the range of contexts across which teachers move offers the promise that powerful learning might be achieved because knowledge grows more complex, and becomes more 'useful' through a learner's participation in different contexts. (Borko and Putnam 1996). Activity Theory encourages one to ask how mentor and NQT might collaborate in reconceptualising the purpose and processes of induction activities as a consequence of confronting the common ideas and the contested ideas that are encountered in the different contexts in which the NQT is learning (eg the ITE programme that they have completed, the induction programme in which they are engaged and the day to day teaching that they are doing). Activity Theory also suggests that NQTs' learning activities should be designed to improve teaching in the school generally as well as the teaching of the NQT as an individual, and to ask how far the school as well as the individual is open to change. A full cycle of expansive transformation may be understood as a collective journey through the zone of proximal development of *the activity* (Engestrom, 2001, p137).

Our key point is that it is essential to understand these complexities in the processes of teacher learning and to investigate whether the potential they offer for powerful learning is being achieved.

As we have argued, the induction tutor/mentor is crucial in directing and supporting NQTs, but the school as a workplace is also crucial. Fuller and Unwin (2004) offer the important perspective of workplaces generally as lying somewhere on a continuum between restrictive and expansive learning environments. This idea is further developed in the context of schools and classrooms by Hodkinson and Hodkinson (2005), who define an expansive environment as 'one that presents wide-ranging and diverse opportunities to learn, in a culture that values and supports learning' (p123). They further suggest that:

teacher learning is best improved through a strategy that increases learning opportunities, and enhances the likelihood that teachers will want to take up those opportunities. This can be done through the construction of more expansive learning environments for teachers.

(Hodkinson and Hodkinson, 2005, 110)

According to Billett (2001) such an environment increases the affordances for learning at work. The extent to which the individual chooses to engage with those affordances is also recognized by Billett (2004) who argues that learner participation in workplace practices is dually constituted between workplace affordances and on how an individual chooses to engage with those affordances (p190) – which in turn depends on the individual's sense of themselves as a teacher: their values (Pajares 1992; Poulsom et al. 2001), and their identity (Sfard and Prusak 2005).

The strong themes of affordance and identity are intertwined to the extent that an individual's learning in a particular workplace context is unique. However, Billett's work (*ibid.*) also reminds us that the workplace, and those with power in the workplace, (in our case the induction tutor and those who support NQT learning in the subject department) can influence to a considerable extent the nature and quality of learning opportunities offered. The resulting experience for the NQT can then be an 'empowering' or 'disempowering' one (Lave and Wenger, 1991, 36). These opportunities for learning are, however, only part of the story in affecting what is learnt, since each individual will interpret what is offered within a personal context and history that has been shaped by their experiences in other groups, both prior and contemporary (Eraut 2004 p203). Nevertheless, the opportunities will help to shape for the NQT the Zone of Free Movement (Valsiner 1997) within which their actions and thoughts might be constrained.

What is important here is the idea that an induction tutor/mentor in a position of power will have a designated identity (Sfard and Prusak 2005) for an NQT, and it can be speculated that it is in the NQT's interests not only to accept this designated identity but also to work hard at closing the gap between their actual identity and that being designated. In other words, they are in danger of becoming, or at least trying to become, the kind of teacher that fits with the school's/induction tutor's/ department's notion of a good teacher. If that is the case then the TDA's assertion that the induction tutor 'will be a significant influence on the quality of [the NQTs] programme' (TDA, no date) takes on added significance: the induction tutor decides what previous learning should be drawn upon; how classroom situations are interpreted; what kinds of support are most helpful for NQT learning; how the balance of sympathy and challenge is managed; what a good teacher might be; and so on. If all the power to shape a future identity lies, in this way, in the hands of key colleagues in school, the NQT is in danger of simply learning to become one who belongs to a particular school or department, to the way it works and the way it conceptualizes learning, without recognizing, or exploring alternatives and without capitalizing on other strengths that they may bring with them to the situation.

In summary, this review of the literature has identified five broad factors which need to be considered when seeking to understand teacher learning.

The subject: the identity, actual and designated of the learner; their dispositions; personal expectations; previous history as a learner; broader life history (for example Sfard and Prusak 2005).

The context: power relationships in the school; institutional history in relation to ITE; institutional expectations and policies; the expectations of other people involved (eg pupils, parents, governors); resources; the external policy agenda; what learning is possible and what is difficult; openness to systemic change (for example Lave and Wenger 1991).

The purpose: the motive of the enterprise; what learning is being sought, for the school as well as the individual; what will count as 'good learning' (for example Greeno, Collins, and Resnick 1996)

Support for learning: the role of more knowledgeable others; their provision of scaffolding; the conceptual and physical tools available to the student (or that the student can strive to acquire) (for example Hodkinson and Hodkinson 2005)

Learning across contexts: restricted and expansive learning environments; contestation.(for example Borko and Putnam 1996).

The study

The research question we answer in this paper is: How do the issues addressed by induction tutors/mentors and NQTs in the induction year contribute to the shaping of the NQTs professional development?

The recruitment of our sample of NQTs for the project proved problematic, perhaps because NQTs predicted that their induction year would be very busy without the added demands of a research project. We initially contacted all 200 Open University and University of Exeter science and mathematics students due to complete their Postgraduate Certificate in Education (PGCE) courses in summer 2007 and invited them to take part. We wrote to organisations responsible³ for employment-based Graduate Training Programmes (GTP) (TDA no date) asking them to pass on an invitation to join the project to those of their students who were due to complete at the same time. We contacted headteachers of all secondary schools in 9 local authorities to pass on invitations to their NQTs. As a result of this, we received informed consent from 45 NQTs . Of these, 28 completed a questionnaire at the beginning and end of the NQT year. Fifteen of these NQTs and their induction mentors agreed, in addition, to provide further data from a school visit. In this paper we are concerned with an analysis of the data collected from these 15 NQTs:

Table 1 The nature of the sample⁴

	Traditional PGCE	The Open University Flexible PGCE	GTP
Mathematics	Gilly (1 st degree in education with mathematics) Neil (1 st degree in mathematics) Theresa (PhD in mathematics) Karen (1 st degree in mathematics) Paul (1 st degree in mathematics) Trish (1 st degree in engineering)		Frank(1 st degree in engineering) Briony (1 st degree in mathematics)
Science	Wendy (1 st degree in science) James (1 st degree in physics) Beth (PhD in chemistry) Rachel (PhD in science)	Lesley (PhD in biology) Colin (1 st degree in science)	Owen (PhD in chemistry)

³ These organisations are known as Designated Recommending Bodies

⁴ This table shows the high levels of qualification in our sample, perhaps consistent with the idea that only more confident NQTs volunteered for this part of the project. In common with Hodson (2007) we found little evidence of differences amongst NQTs from different ITT routes so this aspect of analysis is not explored further below.

The research question was answered by semi-structured interviewing of these 15 beginning teachers about their perceptions of the processes and products of their induction programme. The interview data were supplemented by pre-interview and follow-up questionnaires with the same NQTs. The relationship between teachers' thinking and their practice was explored through interviews after a lesson they had taught was observed and, where possible, video-recorded. This was done using the method of stimulated recall (Calderhead 1981; Lyle 2003). Following Brown and McIntrye (1992), the NQTs were asked to identify parts of their lesson where they felt things went well. Analysis of the stimulated recall interviews triangulated the insights into teachers' thinking achieved by the original semi-structured interviews. We also interviewed 'significant others' – in this case the beginning teachers' induction tutor or mentor. This allowed us to develop an understanding of each NQT in their particular workplace. NQTs and mentors were invited at a later date to check relevant sections of our developing understanding for accuracy and to add further comments as they wished. We were able to judge the validity of the data from triangulation amongst different methods of data collection, and to check our emerging understanding by participant validation of our analysis. Comparison between different respondents' views of the same situation added to these validity checks, although we were careful to bear in mind the likelihood that different people in different roles would construct different understandings of the situation.

We decided it would be useful to focus on secondary teachers of mathematics and science. This would allow us to compare results within each subject and across the subjects (although discussion of subject differences is limited in this paper). As teachers and teacher educators of, predominantly, science and mathematics ourselves we felt in a particularly strong position to have an understanding of the nuances of what we would be likely to see and hear. Because both subjects are core subjects in the National Curriculum and have suffered chronic shortages in teacher supply, we decided it would be particularly valuable to develop insights into induction in these subjects as this would inform both teacher education and teacher retention. Whilst two of the authors had taught a minority of these NQTs during their PGCE programmes, the two researchers collecting data were not known to any of the participants and held no power in relation to them.

Once all data had been gathered for each participant, all the researchers met, reviewed the data and agreed on a number of themes which appeared significant across cases. The themes related to issues which were of concern to many NQTs (for example behaviour management), issues where the data shed light on points raised in policy documents (for example the use made of the Career Entry and Development Profile (CEDP), and the role of the mentor), and issues where the data shed light on points raised in the research literature (for example issues relating to the workplace, and issues relating to the identities of the NQTs). This allowed us to identify unpredicted themes in the data and to explore ways in which the data illuminated the issues raised in the literature. What became clear, however, was that behaviour management dominated much of the talk between NQTs and their mentors. Triangulation of the data further allowed us to see that the NQTs and their induction mentors were broadly in agreement that this should be so. We therefore present our analysis of the data with this in mind and draw on other emerging themes when they help to illuminate why this might be the case. The only examples where there was disagreement between an NQT and their mentor are included in the analysis.

The analysis is presented first from the perspective of the NQTs and then from the perspective of their mentors. We then look briefly at the subject differences that emerged in the study and finally summarise our findings in terms of the synthesis of cultural theories of learning outlined above.

Analysis of the NQT data

Despite the development, since 1984, of much closer partnerships between schools and universities in the provision of initial teacher education, all the NQTs still experienced the previously documented 'reality shock' (Veenman, 1984) during their first year of teaching. This became apparent most particularly in relation to behaviour management concerns, to issues relating to their perceived lack of time and to the difficulty of achieving a satisfactory work-life balance. There was a recognition that as a 'proper teacher' they had to take responsibility for their pupils' learning, and this was perceived as a different level of responsibility from that experienced as a student teacher taking over someone else's classes.

The NQTs had behaviour management concerns throughout their induction year whatever their school context, and in many cases this concern persisted into their second year of teaching. Although classes in some schools were described as difficult by the induction mentors as well as the NQTs, this was not always the case and some NQTs, on the face of it, might have been expected to face relatively few behavioural problems. Nevertheless, all but one of them (see James below) perceived themselves as having such problems. For example, one NQT who was based in an independent school (Beth) was finding that what was “*hardest*” was “*getting them to be doing what I want them to be doing in the classroom*”. Other NQTs teaching in more challenging circumstances faced greater difficulties.

It seemed that both the NQTs and their mentors had expected behaviour management problems to arise in what was perceived to be the ‘tough’ NQT year, and in all but one case were not disappointed. It almost seemed that James, the one who ‘escaped’, felt cheated because he had not faced any of these problems. Working in a city Academy, James felt that the school had such a strong disciplinary structure that he was not sure if he had learnt enough to cope in any other school:

“I worry about the behaviour management thing, where people say: well if you go to another inner city school, you can't just go in there all guns blazing, and deadly serious and just shout kids down, because they'll just walk out or shout back, and nothing will come of it, but here, if they shout back then they're out of school for a day...”

James

It seems, therefore, it concerned him that he had not had to face the problems he had expected and therefore had not had the opportunity to learn from working on those problems.

The concern for behaviour management from the remaining 14 NQTs often dominated their thinking: they seemed to see all their teaching through a behaviour management lens (Achinstein and Barratt 2004). Indeed, for a significant minority, pedagogical decisions were restricted by concerns for behaviour management since more creative teaching approaches were often judged to be too risky for ‘difficult’ classes.

“if their behaviour is good, or ... they're listening then I will more generally let them take a more active part”.

Lesley

However, this was not the only limiting consequence of NQTs’ behaviour management concerns: for example, Karen found that it could be dispiriting if she has prepared materials and “*the kids just screw them up and throw them on the floor and you think why did I bother?*”; Gilly and Colin both made seating plans to “*discourage them [pupils] from talking too much*” which may limit opportunities for other pedagogically motivated seating arrangements; Frank was “*disinclined to spend time on more adventurous lessons that might not work*” with lower sets.

Most worrying is that there was a dominant belief amongst both the NQTs and their induction mentors that the induction year would inevitably be demanding in terms of behaviour management and that any broader development of teaching should be put on hold until behaviour management had been dealt with. As Paul’s mentor commented:

I think the actual teaching aspect doesn't ... come first. I've always felt that you need to make sure your systems are in place. Even if the lessons are a bit “naff” to begin with ... make sure the structures, the behaviour, the seating plans, the marking, the collecting books in and giving them out and making sure that the kids know what they're expected to do, is set in stone. Then you can go crazy, do cartwheels, do back flips, whatever. You can only do that when you know that your classroom environment is sound, when you know the students know the routine...the main thing you've got to do is don't show off, don't do great lessons initially...”

Paul's induction mentor

This could of course be a sound strategy for an initial lesson with a group, but there was a risk that doing this in the longer term might, in itself, have contributed to behaviour problems. We therefore became increasingly concerned about the belief that behaviour management issues had to be dealt with before any other pedagogical development could take place, and that in the meantime learning opportunities for pupils would be restricted – often for the whole of the NQT year, if not beyond.

A further point of concern was that our data also suggested that once the classroom behaviour issue had been addressed, other things seemed not to come to the top of the agenda for NQT/ induction mentor conversations. There did not, for example, seem to be a new focus on promoting learning since it seemed to be considered by all concerned that once behaviour management difficulties had then been dealt with then no further regular and systematic support was needed. Regular weekly meetings between NQT and induction mentor therefore tended to tail off once ‘problems’ were considered by both to have been dealt with.

Although behaviour management dominated much of the thinking of the NQTs, the support they received in relation to it seemed conceptually limited. Almost all of them attended a course run by the local authority (LA); all attended ‘in house’ sessions in school about ways of managing pupils; many observed other teachers; many were given ‘tips’ by their induction mentor and other teachers about how to handle difficult classes and individuals. Yet there was no evidence that any of them were encouraged to consider their teaching through a lens other than that of behaviour management, nor indeed that they try more creative, or ‘risky’, teaching strategies as a way of motivating the pupils. It was also noticeable that although during their ‘training’ year they had received in-class support with difficult classes, this was not available to them as NQTs. In other words, within a matter of weeks they were perceived as having moved from someone needing support in the classroom to someone who needed to show they could deal with problems on their own. Many NQTs therefore stayed at what seemed to us to be a relatively superficial level of understanding about behaviour management issues. Conversations with Rachel and her induction mentor demonstrate this clearly. Rachel had observed other teachers who she perceived were managing her difficult class well and had deduced that “*I think it's to do with their experience and their status in the school as much as anything else.*” In other words, what she had learnt from that observation was that there was not much she could do about the situation. Her induction mentor later reflected on his own support and demonstrates that she would not have been able to learn very much from him either, and that he could only offer her ideas taken directly from his own practice:

“[Rachel] is not a middle-aged man that's 5'11" with an intimidating stare and a voice that can chill to the bone under certain circumstances... is it her fault that the strategies that I use or would suggest to her for classroom control, don't work....One size does not fit all, at all.”

Rachel's induction mentor

Thus it seemed that behaviour management problems were seen as a rite of passage both by the NQTs and their induction mentors and that getting through those inevitable problems of behaviour management determined, for the majority of induction mentors, whether or not a particular NQT was likely to be a successful teacher. Further it seemed that there was a dominant view that lessons should remain relatively unambitious until management problems had been addressed and that once those problems had been solved there was little need for further regular meetings for induction support.

In the absence of any deeper challenge to existing practice and the development of richer practice, it is perhaps not surprising that some NQTs channelled their energies elsewhere. For example, Gilly as a mathematics teacher did not mention the challenges of teaching mathematics in her interviews, but emphasised instead activities outside the classroom. She had become actively involved with girls’ football, rounders and sailing club “so there’s enough to keep me interested.” Presumably she did not recognise or value the challenge of improving her own teaching of mathematics in quite the same way, and had not been helped to do so.

There were also examples of NQTs clearly struggling on their own to develop their thinking and practice who would have benefitted from some support. Paul, for example, had tried to introduce an element of differentiation into his teaching by allowing those who were more advanced in their work to carry on whilst

he stopped the rest to explain a concept again. He spoke in his interview about a lesson where half a dozen or so pupils had “really struggled” with long division, whereas the rest of the class had been “OK” but it made him think “*how do I teach this? Maybe I need to re-learn how to teach this in a different way?*” But with a new seating plan which enabled him to work specifically with that group, whilst the rest of the class got on with something else, he was able to solve the problem. Whilst he recalls that he may have talked to colleagues about “*other ways to explain*” the topic, the change in seating plan was “*something I did myself just because I was sure they were all intelligent enough to get it but thought I hadn't explained it well enough ... so I wanted a second chance.*” It seemed that Paul was engaged in a significant struggle, and therefore a readiness to learn, about differentiation here and, indeed, with ideas of Mastery Learning (Bloom 1976) which he seemed to be moving towards. At the same time his mentor, who as we have already reported considered that Paul should focus exclusively on managing the pupils, had decided there was no longer a need for regular meetings by the time this comment was made so we were not confident that his mentor was therefore likely to be engaging in the pedagogical exchange that could so productively have taken place.

Once regular meetings had been abandoned, the agreement between every NQT and induction mentor pairing in our sample was that discussions would take place only when the NQT felt there was a problem. We were very concerned about this on several fronts. First, NQTs, concerned about demonstrating that they had met the required standards, might be reluctant to initiate conversations about a ‘problem’ and might therefore fail to get the support that they knew they needed. Secondly, we were concerned that the ending of regular meetings closed down opportunities for continuing professional development, particularly in relation to classroom pedagogy. The implication is that professional development is only about dealing with deficits in the NQT’s practice, and is not seen as a forum for opening up discussion about the complexities of learning where both NQT and mentor might be challenged in finding ways of advancing good practice (including, on occasion, that of teachers other than the NQT). Finally, in the words of the one NQT who questioned the (in our view, premature) ending of meetings:

“all through PGCE, all through induction there's this idea, this emphasis on the ... trainee, or the NQT being proactive and making things happen, so what happens then is [the induction mentor] thinks, well, 'obviously this person will come to me when they need help'. But if you don't know what help you need, you don't know what help to ask for.”

Neil

This questioning of practice was the only example in our data of an NQT questioning the quality of the support being offered to them.

The induction mentor

Up to now we have used the term ‘induction mentor’ to present data which relates both to a central member of staff (sometimes but not always called an induction tutor who was usually a relatively senior member of staff) and to a teacher concerned with day-to-day induction support (sometimes but not always called the mentor who was a member of the department in which the NQT taught, and usually the Head of that Department). Staff in these posts frequently changed during our 18 month study and although there seemed to be ‘training’ at Local Authority level for the induction tutor in particular, this rarely extended to the induction mentor. Consequently, NQTs in our sample were often supported at classroom teaching level by induction mentors who were unsure of their own role and of these, a few who had taken on the role in order to gain promotion or because there was no one else available to take on the job. The training which did exist seemed to relate to TDA requirements and organisational procedures and none of our induction mentors talked about, for example, the complexities of learning to teach or the complexities involved in their role in supporting the NQTs.

Nevertheless, all our NQTs were offered a carefully structured generic programme planned by the induction tutor where specialists in the school gave presentations on their role. Such sessions were often timed to meet emerging needs for the NQT. Thus there might be a session on report writing just before an NQT had to carry out the task. The emphasis was on the need to learn about existing school practices. Since there was usually more than one NQT in the school such sessions also allowed for, and were often

designed for, NQTs to 'let off steam' with each other and for there to be liberal amounts of sympathy and support offered. The induction tutor also took responsibility for formal assessment points and formal observation of the NQTs in preparation for those assessments.

However our particular interest was with the professional development of the NQTs, and the identification of possible explanations as to why it was shaped in particular ways. We therefore looked at our data carefully in terms of what we knew of the thoughts and actions of the staff involved in the induction process in relation to the specific learning needs (as they perceived them) of the NQTs in our sample.

The induction mentors, broadly speaking, saw their role as one of helping their NQT fit into the school; the provider of support during what they saw as a tough year for the NQTs; and with a focus of concern almost exclusively on behaviour management. Not all induction mentors felt the need to provide specific support targeted at their NQT and presumably, therefore, did not identify specific learning needs for their NQTs:

"I don't think it's right that just because one's at a certain stage in one's training you should have a special induction programme ... adults, graduates, they're trained, they're qualified, it would be incredibly patronising if we were any different. No, if you need help you must ask for it".

Beth's induction mentor

The idea of NQTs asking for help was a consistent theme in the data, and only Neil questioned this as an appropriate strategy (see above). It can therefore reasonably be concluded that for many in our sample, both the induction mentor and the NQT accepted from the beginning of the support period that the topic of conversation was likely to be behaviour management, and that once this had been perceived to have been addressed there was no other sort of conversation to have.

"We'd check previous week's targets, set new ones, roll forward any, talk about what's gone wrong, if I needed any help, we needed to clarify what's happening, I could ask, but it's now become a less formal affair, because if there's a problem I go and see her as soon as we've both got free time rather than it being just in the formal mentoring meetings now."

Wendy

"By the summer term, in general, there is less help sought by NQTs as, by then they're much more confident with their discipline and all the other things."

Owen's induction mentor

However, whilst NQT themselves might have felt more confident, we were less confident than Owen's induction mentor about Owen's continued learning needs. During interviews with him in May of the school year, for example, Owen thanked the interviewer for suggesting to him that he might observe teachers in other subjects "*that's a good point, I would love to do that*" and for suggesting he might ask for a Learning Support Assistant with a difficult class "*why don't I ask for one? You've given me a great idea, it's worth a try.*" The strategy of tailing off support, and the quality of support being offered, were therefore put into serious question.

Emerging subject differences

The NQTs in our sample were well qualified in relation to personal subject knowledge, particularly those teaching science. Irrespective of subject, our NQTs were a group of individuals with different perceptions about their subject and the teaching and learning of their subject. Some had a clear overall sense of what they were trying to achieve whilst others, who were often able to talk at a more general level about generic learning, did not do so in relation to their subject teaching. There was, however, some more explicit concern for development of subject knowledge amongst science NQTs than amongst those who taught mathematics. For these science NQTs, the strategies of reading texts and answering examination questions were employed to help them develop their knowledge rapidly. However, some recognised that when lacking confidence in a particular topic, they were likely to adopt a narrower range of teaching

approaches with their classes, although they did not explicitly link this with the likely effects on learners of them having done this.

A striking feature amongst some of the science NQTs was their desire to share their enthusiasm with pupils for their particular subject. Beth, for example, said that “one of the wonderful things about chemistry is that there are things that you can do that can make their jaws drop”. Owen wanted to excite pupils in chemistry through the ‘wow’ factor in lessons. The enthusiasm expressed by some of the mathematics NQTs related to more general features of their subject. Briony wanted her pupils to understand that the ‘universal language of mathematics’ was important whilst Neil emphasised that mathematics was ‘abstract thought...it’s useful to be able to think abstractly’.

Whilst there is little data to suggest that induction mentors supported NQTs in developing subject knowledge beyond provision of texts and examination materials, it was clear that some mentors seemed to assume that if an NQT had strong personal subject knowledge they also had strong pedagogical knowledge.

Reflections

The research question we asked ourselves was ‘How do the issues addressed by mentors and NQTs in the induction year contribute to the shaping of the NQTs professional development?’

It seemed that for the most part induction tutors offered sympathy and support to the NQTs, particularly in relation to behaviour management, and offered practical suggestions to help in relation to this. However, we were less confident that induction mentors attended to wider pedagogical issues in their discussions with their NQTs or examined alternative pedagogical strategies from the ones being used in the school. Impact on NQTs’ thinking was therefore limited and opportunities to develop ideas encountered during initial teacher education were few. In addition, there were few signs that induction was actively supporting NQTs’ development of innovative practice, and some indications that pedagogical options were being closed down by an emphasis on ‘getting behaviour management right first’.

This generally pragmatic approach of support and practical ideas for behaviour management seriously limited the consideration of alternatives to thinking and practice. Further, ideas that the NQTs brought with them of broader, theoretical ideas were in danger of being lost: all but one of our NQTs was perfectly happy that support from their induction mentor would end after initial ‘problems’ had been sorted out. Our evidence was that very many of the induction mentors either did not value such theoretical ideas anyway, or felt them inappropriate for NQTs.

We argued earlier in the paper that factors which should be taken into account when seeking to understand teacher development included

The subject. We see from the data that because of the need to fit in, the designated identity for the NQTs became that defined by the school, and in particular the induction mentor. Where NQTs’ previous experiences, established skills or dispositions fitted school norms, the NQTs were able to build on their personal history. These characteristics became part of their identity as a teacher. However, the designated identity defined by the school, with behavior management as its focus, was of a teacher who broadly accepted the cultural norms of the school in relation to ideas and in relation to professional development. The consequence of this was that ideas the NQT brought with them which did not fit in were not normally revisited by the NQT and, in most schools, remained unexamined by the NQT and induction mentor. Opportunities for the NQT to teach in different ways to their new colleagues, and opportunities for those colleagues to learn from the NQT were therefore limited. Furthermore there was little evidence of explicit confrontation of aspects of personal history that were not helpful to the NQT in their new role as teacher. Both NQTs and induction mentors accepted that the Zone of Free Movement (Valsiner, 1997) was defined by the existing community of practice in the school. The more expansive that environment the more likely the NQT would be encouraged and supported to draw on previous experiences. On the other hand, the more restrictive the environment the more likely the NQT would be to adopt a role of peripheral participant in a community where little could or needed to be drawn on from

previous learning. In that case, the NQT was indeed a *tabula rasa* in relation to the learning that was valued in the community.

The context in which NQT learning took place was one in which emotional support and encouragement were foregrounded but with little attention to professional challenge. However there were exceptions to this in a school where whole-school initiatives allowed the NQT to engage alongside more experienced colleagues in professional learning. The consequence where this took place was that NQT recognized they had something to offer in terms of alternative ideas and insights into unfamiliar practices for experienced teachers, and the NQT could appreciate the importance of continuing professional development. It is likely that other schools were engaged in initiatives of this kind, but we found that often mentors adopted a gate keeping function that excluded NQTs from these activities. Though this may have been well intentioned (eg as a means of reducing the demands on the NQT during what is perceived to be a stressful first year of teaching) the impact may well be to reduce aspirations for continued pedagogical innovation during a teaching career.

The purpose of the induction year beyond that of learning to fit in was that of learning to cope in the classroom in terms of behaviour management. Once this had been addressed to the NQT and mentor's satisfaction, the purpose of the year was to deal with problems as they arose. An additional purpose, which induction tutors seemed most aware of, was the need to ensure that induction standards were met. Once they had been met, it was not clear that there was continuing a framework for learning and a consequence of this was that the NQTs and their mentors were in danger of seeing that the job was done, and beginning teacher needs could be subsumed within existing experienced teacher development. Of particular concern was inattention to the development of pedagogical knowledge. In addition, there was little evidence that further development of the practice of the school was seen as one purpose of induction activity.

Support for learning was strong at the technical level, and whole-school input helped NQTs cope with school-based demands through the year. Support at the classroom level was less well developed, and a significant number of the induction mentors in this study found it difficult (or unnecessary) to discuss wider school-based or more general pedagogical issues. This was particularly problematic given their continued use of a behaviour management lens within which to consider classroom practice during conversations with the NQTs. Induction mentors need much more support to help them work with NQTs as *learners* who bring ideas with them and have particular dispositions to learning. The consequence of failing to offer support and challenge at the classroom level is that NQTs see existing practice as representing the boundaries of what is possible, and opportunities for the department to learn new ideas from them are lost. The theoretical ideas discussed in this paper could provide valuable guidance for the sort of preparation that induction mentors might receive for this role.

Learning across contexts. There was little encouragement for this to take place since the Career Entry Development Profile was largely ignored and there was little funding to attend courses outside the school. Discussions about theoretical ideas from ITE, or about alternative practices in other schools, rarely if ever took place. The consequence of this was that there was little opportunity for expansive learning for the NQT and virtually no possibility of an expansive transformation of a department or school.

Although we saw examples of expansive school working environments where NQTs were encouraged to share their ideas and join in collaborative and exploratory activities, the overwhelming need to 'fit in' inevitably restricted their learning and indeed drew attention to the extent to which the school culture defined the limits of what learning could take place. We also realised that even when there were signs of expansive opportunities at the school level, the induction mentor could act as a powerful filter and turn the environment into a restrictive one for the NQT.

Given that induction aims to help NQTs 'develop the knowledge and skills gained during initial teacher training' and provide a 'framework for continuing professional development' (TDA, 2007) it is clear from our findings that the aim is not being met. Similarly the aim of the Masters in Teaching and Learning programme (MTL), namely 'building on ITT and induction' (DCSF, 2008, 13), becomes equally

problematic. Shared beliefs amongst induction mentors about the need for NQTs to fit in, to focus attention predominantly on behaviour management, and to confine discussions to practical advice further suggests that there needs to be a shared framework for richer pedagogical discussions between NQT and induction mentor throughout the whole of the induction period and beyond, and that this should be at the level of classroom thinking and practice.

The TDA (no date) argue that the benefit of the MTL for schools will include the opportunity to enhance the culture of professional learning in the workplace. The idea of a learning school is essential for the improvement of learning during induction and beyond since it supports the idea of *all* teachers as learners in the workplace *and* it provides a shared language about learning in the school. In the research reported here, it would not only have supported continued learning after behaviour management and induction standards had been addressed but it would also have supported mentor dialogue about teaching and learning.

Acknowledgements

The authors are grateful to the Leverhulme Trust for their financial support of this research (Grant number: F/00 144/AX).

References

- Achinstein, B., and A. Barrett. 2004. (Re)Framing Classroom Contexts: How New Teachers and Mentors View Diverse Learners and Challenges of Practice. . *Teachers College Record* 106 (4):716-746.
- Beyer, L. 1988. *Knowing and acting: inquiry, ideology and educational studies*. London: Falmer Press.
- Billett, S. 2004. Learning through work. Workplace participatory practices. In *Workplace Learning in Context*, edited by H. Rainbird, A. Fuller and A. Munro. London: Routledge.
- Bloom, B.S. 1976. *Human Characteristics and School Learning*. New York: McGraw Hill.
- Borko, H., and R. Putnam. 1996. Learning to teach. In *Handbook of Educational Psychology*, edited by D. Berliner and R. Calfee. New York: Macmillan.
- Bourdieu, P. 1977. *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- Bourdieu, P., and J-C. Passeron. 1990. *Reproduction in education, society and culture*. Translated by N. R. London: Sage.
- Brown, S. , and D. McIntyre. 1992. *Making sense of teaching* Buckingham: Open University Press.
- Calderhead, J. 1981. Stimulated Recall: A method for research on teaching. *British Journal of Educational Psychology* 51:211-217.
- Calderhead, J. , and P. Gates, eds. 1993. *Conceptualizing reflection in teacher development*. London: Falmer Press.
- Cole, M. 1996. *Cultural Psychology: A once and future discipline*. Cambridge,MA.: Belknap Press of Harvard University Press.

- Edwards, A., P. Gilroy, and D. Hartley. 2002. *Rethinking teacher education: collaborative responses to uncertainty*. London: Routledge Falmer.
- Engeström, Y. 2001. Expansive learning at work: toward an activity theoretical reconceptualization. *Journal of Education and Work* 14 (1):133-156.
- Engeström, Y., R. Miettinen, and R Punamäki. 1999. *Perspectives on activity theory*. Cambridge: Cambridge University Press.
- Engeström, Y. 1995. Objects, contradictions and collaboration in medical cognition: an activity-theoretical perspective. *Artificial Intelligence in Medicine* 7:395-412.
- Eraut, M. 2004. Transfer of knowledge between education and workplace settings. In *Workplace Learning in Context*, edited by H. Rainbird, A. Fuller and A. Munro. London: Routledge.
- EURYDICE. 2009 *Key data on education in Europe*. EACEA, Brussels accessed 7th June 2010. Available from http://eacea.ec.europa.eu/education/eurydice/documents/key_data_series/105EN.pdf.
- Fuller, A , and L Unwin. 2004. Expansive Learning Environments. Integrating organizational and personal development. In *Workplace Learning in Context*, edited by H. Rainbird, A. Fuller and A. Munro. London: Routledge.
- Greeno, J.G., A.M. Collins, and L.B. Resnick. 1996. Cognition and learning. In *Handbook of Educational Psychology*, edited by D. Berliner and R. Calfee. New York: Macmillan.
- Hobson, A.J., L. Malderez, L. Tracey, M. Homer, N. Mitchell, M. Biddulph, M.S. Giannakaki, A. Rose, R.G. Pell, T. Roper, and G.N. Chambers. 2007. Newly Qualified Teachers' Experiences of their First Year of Teaching. Findings from Phase III of the Becoming a Teacher Project. Nottingham, : University of Nottingham.
- Hodkinson, H. , and P Hodkinson. 2005. Improving schoolteachers' workplace learning. *Research Papers in Education* 20 (2):109-131.
- Hodkinson, P., G. Biesta, and D. James. 2004. Towards a Cultural Theory of College-based Learning. In *Annual Conference of the British Educational Research Association*,. Manchester.
- Kaptelinin, V., and A. Nardi. 2006. *Acting with technology: Activity Theory and Interactional Design*. Cambridge, Massachusetts: The MIT Press.
- Lyle, J. 2003. Stimulated Recall: a report on its use in naturalistic research. *British Educational Research Journal* 29 (6):861-878.
- Pajares, M. 1992. Teachers' beliefs and educational research: cleaning up a messy construct. *Review of Educational Research* 62 (3):307-332.
- Parkinson, J., and J. Pritchard. 2005. The induction of newly qualified secondary teachers in England and Wales. *Journal of In-service Education* 31 (1):63-81.

- Peressini, D., H. Borko, L. Romagnano, E. Knuth, and C. Willis. 2004. A conceptual framework for learning to teach secondary mathematics: a situative perspective. *Educational Studies in Mathematics* 56:67-96.
- Poulson, L., E. Avramidis, R. Fox, J. Medwell, and D. Wray. 2001. The theoretical beliefs of effective teachers of literacy in primary schools: an exploratory study of orientations to reading and writing. *Research Papers in Education* 16 (3):271-292.
- Richardson, V. 1997. Constructivist teaching and teacher education: Theory and practice. In *CONSTRUCTIVIST TEACHER EDUCATION: BUILDING NEW UNDERSTANDINGS*, edited by V. Richardson. Washington DC: Falmer Press.
- Schön, D. . 1983. *The Reflective Practitioner: How professionals think in action*. New York: Basic Books.
- Sfard, A., and A. Prusak. 2005. Telling Identities: In Search of an Analytic Tool for Investigating Learning as a Culturally Shaped Activity. *Educational Researcher* 34 (4):14-22.
- TDA. no date *Employment-based teacher training* accessed 7th June 2010. Available from <http://www.tda.gov.uk/partners/recruiting/ebr.aspx>.
- Totterdell, M., L. Woodroffe, S. Bubb, and K. Hanrahan. 2004. The impact of NQT induction programmes on the enhancement of teacher expertise, professional development, job satisfaction or retention rates: a systematic review of research on induction. In: Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education.
- Zeichner, K. 1980. Myth and realities: field based experiences in pre-service teacher education. *Journal of Teacher Education* 31 (6):45-55.
- Zeichner, K.M., and D.P. Liston. 1987. Teaching student teachers how to reflect. *Harvard Educational Review* 57 (1):23-48.