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Becoming a teacher of early reading: charting the knowledge and practices of pre-service and newly qualified teachers

Helen Hendry

Abstract

Education policy in England requires student teachers to demonstrate effective teaching of early reading, including systematic synthetic phonics, in order to qualify to teach. Although there is a range of literature about initial teacher education, little is documented about how pre-service or 'student' teachers develop specific knowledge and practices for teaching early reading and how they apply these in their first term as newly qualified teachers (NQTs). This research used a primarily qualitative longitudinal, collective case study design involving seven lower primary (3–7 years) postgraduate certificate in education (PGCE) students enrolled at one university in the East Midlands of England. Semi-structured interviews, classroom observations and documentary analysis with the students and their teacher mentors were used to gather data from entry onto the course to the participants' first term as qualified teachers. A thematic analysis was applied in conjunction with deductive observation codes developed from a previous study (Louden et. al, 2005). Findings indicate a broad continuum of progression in student and newly qualified teacher knowledge and practice for teaching early reading which could be used to inform university organisation, mentoring and school participation. They highlight the influence of school cultures on the experiences of student and pre-service teachers.

Key words: reading, phonics, teacher education, pedagogy, primary education, early years, professional development, case study

Internationally, improving quality in initial teacher education (ITE) is often cited as a way of improving outcomes for pupils in schools (Darling-Hammond, 2010; Beauchamp, Clarke, Hulme, & Murray, 2015; Carter, 2015). In addition, the experiences of newly qualified teachers (NQTs) during their induction year are also understood to contribute to their confidence and effectiveness (Hobson 2009; Piggot-Irvine et al., 2009; Haggarty and Postlethwaite, 2012; Kane and Francis, 2013; Gut, Beam, Henning, Cochran and Talford-Knight, 2014). However, in the high stakes climate of early reading instruction in England, only one study has specifically investigated the impact of ITE and induction. Ofsted (2012) observed and interviewed 44 student teachers, in the final term of their ITE and their first term as NQTs. They concluded that new teachers had received inconsistent standards of ITE and induction with only 14 receiving 'at least good' education relating to language development and early reading throughout this period (Ofsted, 2012, p. 5). Ofsted also proposed that the impact of poor ITE for the teaching of early reading could be ameliorated by successful induction and vice versa.

Subsequently, the Carter Review of ITE in England (Carter, 2015) highlighted concerns with the development of student teachers' subject specific knowledge and pedagogy on some ITE courses. It suggested a brief phonics-focused school placement for trainee teachers (Carter, 2015, p. 39) and opportunities to learn through experience early in their course. However, neither study tracked the detailed changes in student teacher knowledge and practice in this subject area during the course of their ITE routes and so left unanswered questions about the difficulties and strengths exhibited by students and NQTs.

This study began in 2013, which marked an important change in the delivery of ITE in England. University-led postgraduate certificate in education (PGCE) routes were required to increase the number of days that student teachers spent in school from 90 to 120 in their 38-week courses (DfE, 2015) thus reducing learning experiences in the university. This change reflected government scepticism about universities' contribution to teacher preparation (Douglas, 2015) and an emphasis on school led professional training rather than education for future teachers (Beach and Bagley, 2013). As a consequence, university based time to engage with theory and pedagogy for teaching early reading was limited and the role of the school-based mentor became increasingly significant.

Despite the move towards school-based ITE in England, research in teacher education indicates that learning through experience alone is insufficient (McArdle, 2010; Burn and Mutton, 2013). There may be emphasis on a trial-and-error approach and prioritising what works in any given setting (Hutchinson, 2011). Instead, student teachers and NQTs need supported opportunities to develop strong theoretical knowledge and to analyse practice (Lunenberg and Korthagen, 2009). Therefore, schools, universities and student teachers must have shared understanding of the necessary components of subject knowledge for teaching early reading and how these can be developed through guided application in a school context. However, school-based mentors may not know which areas of knowledge and practice student teachers find challenging or how to communicate specific elements of their own pedagogical knowledge (Hudson, 2013). Previous attempts to isolate essential content knowledge for teaching reading have proved difficult and have highlighted the complexity of teacher knowledge in this area (Phelps and Schilling 2004; Phelps 2009).

Teacher knowledge for teaching reading

Shulman (1986, 1987) proposed that teacher knowledge included subject knowledge, curriculum knowledge, pedagogical content knowledge (PCK) and knowledge of learners, educational contexts and educational ends (Shulman, 1987, p. 8). PCK comprises knowledge about how students learn, knowledge of possible misconceptions in any subject, as well as knowledge of different teaching methods for organising and communicating subject knowledge. Some authors have challenged PCK

from the standpoint that it suggests knowledge is individually constructed (Lave and Wenger, 1991; Cole and Engeström, 1993; Banks, Leach and Moon, 1999; Putnam and Borko, 2000; Ellis, 2007a, b, Griffith, 2017). They argue that, from a situated perspective, teacher knowledge can be interactive and collective, and can both influence and be influenced by the teachers' surrounding environment (Zeichner and Gore, 1989; Borko and Putnam, 1996; Cochran-Smith and Lytle, 1999; Ellis, 2007a, b).

Whether PCK is fixed, or fluid and related to the environment, attempts have been made to delineate the elements of PCK and chart the way in which student teachers develop PCK in specific subject areas (Twiselton, 2000; Singer-Gabella and Tiedemann, 2008; Friedrichsen, Van Driel and Abell, 2011; Kleickmann et al., 2013; Wongsopawiro, Zwart and Van Driel, 2017). In the case of early reading, Phelps and Schilling (2004) argued that the content knowledge needed was ill defined as there was an assumption that teachers who could read would be able to teach reading. In an attempt to gain a greater understanding of PCK for teaching early reading, Phelps and Schilling (2004) used a multiple-choice questionnaire with 1,542 elementary teachers. The participants identified pupils' reading strategies and misconceptions from a set of classroom scenarios. The study found that teachers drew upon content knowledge related to both 'comprehension' and 'word analysis' when deciding how best to support pupils. Their 'comprehension' content knowledge encompassed morphology, vocabulary, comprehension strategies, questions, genre and fluency, whilst 'word analysis' included phonemic awareness, letter-sound relationships, word frequency and decoding. Other knowledge for teaching reading may include children's literature and linguistic terminology to support teaching (Phelps and Schilling, 2004; Cremin, Mottram, Bearne & Goodwin, 2008).

Following Phelps and Schillings' (2004) work, studies of teachers of early reading have highlighted that teachers need to be able to identify phonemes and use these to 'decode' unfamiliar words (Phelps, 2009; Fielding-Barnsley, 2010; Binks-Cantrell, Washburn, Malatesha-Joshi, and Hougen, 2012). Other authors indicate that content knowledge for teaching early reading may be necessary but not sufficient to support pupil progress. In a study of over 800 first, second and third grade teachers in elementary schools in the USA, the impact on pupil outcomes in reading when taught by teachers with higher content knowledge of early reading was limited (Carlisle, Kelcey, Rowan and Phelps, 2011). Pupils, in these teachers' classes, showed an improvement in comprehension, but not word analysis, at the end of the first grade and no statistically significant improvements in reading at the end of the second or third grade. Furthermore, a smaller study of 21 student teachers indicated that developing students' content knowledge of the components of early reading was not enough to ensure that student teachers became confident and competent when teaching early reading (Leader-Janssen and Rankin-Erickson, 2013). It seems probable that teacher knowledge for teaching early reading can only become PCK through practice and interaction with other more experienced teachers (Banks et al. 1999; Ellis 2007a, b; Hudson, 2013). The impact of teachers' reading content knowledge on pupils' outcomes is therefore

reliant on how it is applied in teaching situations. Consequently, it could be argued that to understand and support teacher development for teaching early reading, greater attention must be paid to knowledge in practice.

Effective practice for teaching reading

There is a noticeable lack of recent research, particularly in the UK, into teacher practice when teaching early reading and literacy. This may be because of the consensus about general features of teacher effectiveness from reviews of existing research such as Ko, Sammons and Bakkum (2013) and Coe, Aloisi, Higgins and Major (2014). Alternatively, teacher education research may be increasingly targeted, large scale and focused on policy and organisation (Cochran-Smith & Zeichner, 2005; Risko et al., 2008; Grossman, Hammerness & Macdonald, 2009). It is also suggested that prescriptive policy and curriculum for early reading in the UK has created a culture in which research in this specific area is stifled (Ellis & Moss, 2014). Nonetheless, previous studies and reviews of research from the UK, USA and Australia provide some analysis of the practice of effective teachers of literacy and early reading (Wharton-McDonald, Pressley and Hampston, 1998; Wray, Medwell, Fox and Poulson, 2000; Fisher, 2001; Bogner, Raphael and Pressley, 2002; Louden et al., 2005; Topping and Ferguson, 2005; Flynn, 2007; Hall, 2013: Ellis and Smith, 2017). In these studies, 'effective teachers', selected using reports from senior managers and external observers, test results and value-added scores of their pupils, demonstrated common practices in their teaching of early literacy and early reading. They employed skills and strategies instruction but set explicit skills teaching in context within a broad and rich language curriculum. They provided clear opportunities for children to practise through purposeful application of these skills and used varied, engaging resources in a learning environment that supported and promoted reading. Teachers in these studies modelled processes including decoding and comprehension and they adapted the lesson structure, classroom organisation and the use of teaching strategies to suit the pupils' needs. Perhaps most significantly, these earlier pieces of research agreed that effective teachers of early literacy were flexible and responsive, intervening and scaffolding children's learning using spontaneous opportunities to support and extend their knowledge and skills.

The continued relevance of these earlier findings is supported by a current review (Duke, Cervetti and Wise, 2018) and a few smaller scale more recent studies (Sanden, 2012; Wolfe, 2015; Ness, 2017). For example, Wolfe (2015) highlighted the importance of sensitive instruction and interjection during reading activities with a group of six and seven year old struggling readers in an English primary class. They found that the teacher shaped their interactions to respond to pupils' needs and interests as well as ensuring that pupils were encouraged to, independently, use different strategies to comprehend the text. It was noted that, in this classroom, skills teaching for decoding and dialogic ways to develop comprehension were not 'mutually exclusive' (Wolfe, 2015, p. 510). In the USA, Sanden's (2012) report of practices of 'highly effective teachers' emphasised their use of modelled reading aloud and

explanation of their reading processes. They integrated opportunities for independent reading and discussion of reading strategies into teaching across the curriculum.

Understanding the teaching practices of effective teachers of early reading is important for both mentors and students in ITE because of the school-based focus on practical performance (Mathewson-Mitchell and Reid, 2017). Whilst the agreement demonstrated by prior research presents a clear picture of desirable teaching practices for teaching early reading and literacy, ensuring that student teachers develop these behaviours during the process of ITE and induction is not straightforward (Griffith, 2017). For example, some preservice teachers may view 'in-the-moment' teaching decisions when teaching reading as a weakness in their practice (Griffith, 2017). Investigating the development of teaching practices of student teachers and new teachers when teaching early reading offered the opportunity to identify specific strengths and challenges in comparison to known effective practice in this area. This, in turn could support mentors and tutors to develop shared support strategies for pedagogy and subject knowledge (Knight, 2017).

Design of the study

The study used a longitudinal collective case study design (Stake 2008) as multiple student cases were studied individually but bound by the same PGCE course. Examining the participants' perspectives at set intervals alongside classroom observation and mentor interviews provided the opportunity to investigate changes to participants' knowledge and practice during their 40 week ITE and first three months as new teachers. This then allowed theoretical explanations to be drawn from the analysis (Stark and Torrance, 2005).

The Primary PGCE is a common ITE route in England that can be undertaken by students with an undergraduate degree in any discipline. It includes a large proportion of school-based experience under the guidance of a teacher mentor. The university provides taught content about practice and pedagogy, written assignments and tutor visits to assess and guide classroom practice in conjunction with the mentor. Through a portfolio of evidence and classroom observations student teachers must demonstrate that they meet 'The Teacher Standards' set by the Department for Education (DfE, 2011) in two age phases. Students in the study spent 24 weeks in at least two different school locations. They completed school experiences between September to December, January to April and May to July and returned to the university for taught sessions between each assessed school experience (Table 1). Once the PGCE course was completed, all of the student participants gained positions as NQTs in primary schools. One participant failed one of her assessed school experiences and so continued the PGCE course for an additional term to complete a re-sit school experience. She then went on to begin work as an NQT in January 2015. Data were collected in the latter part of each school placement to allow time for the students' practice and the influence of the setting to develop.

Table 1. Timeline of the study and PGCE course overview

Ethical approval to conduct this research was obtained in line with university policy and the project worked within the British Educational Research Association (2011) and institutional guidelines. Seven PGCE early years students were selected from a larger convenience sample of volunteers in order to represent as wide a range of previous experiences as possible, taking into consideration undergraduate qualifications and work experience. Six of the students selected were in the 21–25 age range and female and one was male aged 26. They were all from 'White British' backgrounds as a result of the primarily 'White British' cohort and volunteer sample. The school-based mentor participants were purposively selected because they were responsible for the student participants in the study. As their input was primarily used to triangulate data about student progress, school systems and mentoring, their personal data were not gathered.

Data were collected during school visits in each term from September 2014-December 2015. On each occasion, the participant was observed teaching a literacy, phonics or reading specific lesson. A running record of their lesson was made using chronological notes of teaching activities and teacher-pupil interactions. Each observed lesson provided a stimulus for discussion in a follow-up semi-structured interview with the student teacher participants. Combining observation and interview in this way enabled the researcher to attempt to make connections between changes in student knowledge and practice and identify factors the participants considered to be most influential (Brown & McIntyre, 1993; Edwards and Protheroe, 2003). The semi-structured interview combined standard questions, which could be compared over the course of the research, with flexible questions and prompts that were responsive to individual circumstances and observed practice (Freebody, 2003; Cohen, Manion and Morrison, 2011). Each participant's school-based mentor was interviewed to ascertain the mentor's perspective on the student teacher's knowledge and practice as well as the ways in which they were supporting this development.

Analysis

The 'Classroom Literacy Observation Schedule' developed by Louden et al. (2005) was selected to analyse and compare changes to participants' practice in observed lessons. The CLOS was designed from an Australian study of 200 early literacy teachers and categorised effective literacy teaching behaviours under 'participation, knowledge, orchestration, support, differentiation and respect' with sub-dimensions in each category. In each section of the 'Classroom Literacy Observation Schedule' categories (Louden et al., 2005) the student was given a rating based on the observer's judgement of how developed those specific teaching behaviours were during the lesson. Observations were also compared with a matrix of key features of effective practice for teaching early reading taken from Wray et al. (2000) and Bogner et al. (2002), in the UK. Applying these categories after the observations provided the researcher with opportunities to compare individual students' practice over time in

conjunction with their interview responses. Interview data were analysed thematically using codes developed from the data to identify both mentor and students' perspectives on the development of knowledge and practice (Miles, Huberman and Saldana, 2014).

The small-scale longitudinal nature of this research provided in-depth layers of data around each student's progress and experiences and identified clear links within the collective case. Although findings from a study of this kind may not be directly transferable to other locations, the trends across cases may provide greater understanding of the process of ITE and induction for early reading in other contexts (Stake, 1995; Bassey, 1999; Miles et al., 2014).

Findings and discussion

The reported findings come from analysis of 36 student teacher interviews, 23 mentor interviews, 28 lesson observations and documentary evidence from the university and the 20 schools where the participants were placed and took up their first posts. The university input and tasks during the PGCE are summarised in Table 1 and Table 2. The findings focus on some of the technical teaching behaviours analysed through observation and some explanation of the students' understanding of reading pedagogy from interviews. Overall, the participants demonstrated a new, broad continuum of development of knowledge and practice for teaching early reading with some key, shared features at different phases of their ITE and induction. These were grouped together under the headings: notice and emulate, respond and innovate, apply and connect, extend and augment. Changes in the participants' practice also provide an interesting picture of the influence of different school cultures for teaching reading. They highlight a pervading reductionist view of teaching reading, and limited dialogue and support for a rich pedagogy for teaching reading.

Table 2. University reading-related tasks

Notice and emulate

From September to December 2013, the PGCE students spent two or three days in school and university each week building up to a six week, full time 'block' of school experience. They attended workshops on phonics and reading (Table 1). They also completed independent tasks focused on subject knowledge, planning, observing and being observed (Table 2). Following this preparation, the students were able 'notice' pupil understanding through observation but they mostly aimed to 'emulate' their mentor's practice:

I wish a boy that wasn't here today that you'd seen him because he couldn't do any of the sounds and now, all of a sudden, it's almost like his ears have been switched on...You know when he's putting them together he can hear it now. (Sarah)

I basically just do what my teacher does, I haven't seen anybody else. (Hannah)

The student teachers were also concerned about whole class management during phonics and reading lessons:

What could have gone better is the starter. It's really beneficial but it's really chaotic... and as always getting them sat on their bottom and listening. (Ben)

Nonetheless, they demonstrated a higher level of thinking about pupils' progress than suggested by earlier longitudinal study of 47 primary student teachers learning to teach literacy (Twiselton, 2000, 2004). They were similarly concerned with ensuring that lessons ran smoothly and that elements prescribed by the school and the curriculum were delivered but they were also aware of individual, and group, needs and progress in reading.

The students in this study were beginning to reflect upon and evaluate the effectiveness of strategies used for teaching reading in their schools:

I found the phonics books really good for building their sounding out and their word recognition but for picking events and details they don't get that from the phonics books because they're too abstract from what the children know as normal. (Ben)

However, in five out of the seven lesson observations, in their first school experience, students made very limited use of metalanguage and modelling encoding and decoding. Metalanguage and modelling were specific subcategories in the 'knowledge' category of the CLOS (Louden et al. 2005). This limitation may be explained by the student teachers' own lack of confidence with content knowledge for phonics and early reading (Phelps, 2009), as they were yet to develop secure content knowledge and their practice reflected this. In common with other research carried out with student teachers outside of the UK (Malatesha-Joshi et al., 2009; Phelps, 2009; Fielding-Barnsley, 2010; Binks-Cantrell et al., 2012), the participants found encoding and decoding using knowledge of graphemes and phonemes most challenging:

I had to practise my segmenting...because I thought I was okay with it and actually when you come to teach it, it's very different...I was segmenting it wrong so I said 'ba-ck' (Sarah)

Another issue observed in five out of seven lessons was that the student teachers infrequently reinforced early reading behaviours such as predicting the contents of a text or discussing the front cover and illustrations. They were also vulnerable to making mistakes such as suggesting that pupils should attempt to decode a 'tricky' word that did not conform to a regular phonic pattern and needed to be memorised as sight vocabulary. In this first 'phase' of the continuum of teacher development the participants and mentors agreed that they needed support with matching lesson objectives and activities to children's reading abilities.

One new finding was that participants in the first phase of their training had very limited knowledge and practice for teaching reading skills that either preceded or followed decoding. Only one participant mentioned or demonstrated book handling, or comprehension strategies. This difficulty may have been

a result of the university focus on phonics in response to external monitoring of outcomes for student teachers in this area as it mirrors the limitations experienced in the American curriculum for ITE following high profile government focus on phonics teaching (Gribble-Mathers, Shea and Steigerwald, 2009; Bingham and Hall-Kenyon 2013). Any university tasks intended to support a wider understanding of reading pedagogy (Table 2) were viewed as an inconvenience by students and were not prioritised by mentors:

As much as I think they probably are useful and do make you think about what you are doing, it's hard to fit them all in with planning and all the other things that we have to do (Natalie)

Respond and innovate

Between February and April 2014, the participants completed their next school experience in a new location and age group. They attended workshops on phonics, spelling and assessment of reading (Table 1). All participants showed an increased ability to 'respond' to pupils' misconceptions and most (six out of seven) began to 'innovate' by introducing new activities for reading lessons. They made greater use of modelling and metalanguage to support pupils with segmenting and blending. They modelled reading fluently with expression and expected pupils to respond to punctuation. Their ability to intervene to support learning as well as to anticipate potential difficulties, demonstrated Schön's (1983) concepts of reflection 'in and on action'. Participant interviews indicated that this was due to a significant improvement in their knowledge of content and pedagogy:

I think I'm getting better at the sounds ... and I'm more comfortable now with the terminology... rather than me having to keep learning it and then delivering it...I've got more knowledge to be able to correct the children a bit more. (Sarah)

By this halfway point in the PGCE, they demonstrated strategies seen in research with effective literacy teachers, such as making connections between whole class reading with larger texts and follow-up guided work and building spontaneously on pupils' contributions to enhance knowledge about reading (Wray et al., 2000; Louden et al., 2005; Topping and Ferguson, 2005). There were no longer any observed or reported errors in their subject knowledge, use of terminology or accuracy of segmenting and blending.

Innovation in the observed lessons included using phoneme cards and objects to supplement interactive white board activities and listening games with musical instruments. These were not 'ground breaking' new strategies but they showed that the students had gained confidence and an understanding of appropriate ways to engage pupils and support their learning. For example, Natalie introduced a new game for Early Years Foundation Stage (EYFS) pupils where they were asked to 'write' given initial letter sounds with their fingers on their partners' backs so that their partner could guess the phoneme:

She's not scared to try something different. I mean what she's doing today I think actually that's quite brave because it's a new thing that the children are doing ... (Natalie's mentor)

All of the participants began to use informal assessment to guide their questioning, support and expectations of pupils. Their interviews also showed that they had continued with wider school arrangements for developing reading such as library visits, story-telling, and sending children home with a soft toy to read to. Sarah explained that she had promoted reading by reading aloud from her favourite book in assembly. She encouraged her class to share peer book reviews and based drama activities around a story to enhance comprehension. Such activities varied according to the individual cultures of each school and it was clear that students placed in schools with a rich reading pedagogy emulated these practices. However, students sometimes gave up successful strategies used in their previous placement because of limitations in the practice of their new school location. For example, Sarah explained that, even whilst promoting reading development in other ways, her phonics teaching had become less interactive in this school:

At my last placement I put a lot more games into it...whereas ... now I'm back to the board again. (Sarah)

Hannah indicated that she felt her practice in guided reading had declined because of limited opportunities to observe experienced teachers 'I never really saw the teaching here'.

In addition, by the end of the second school experience, the student teachers reported that they still had 'gaps' in their knowledge of progression through the phonics phases and that they were uncertain of expectations in the new age group they were teaching:

...coming from the Nursery, I was very aware that I didn't have the knowledge of the phonics as much as was needed for higher up. (Natalie)

Observations of practice showed that students sometimes missed opportunities to challenge or support pupils' reading development. Three students adapted their planning and teaching for the needs of individual pupils, but although the other participants supported children when misconceptions arose, they did not indicate different expectations or strategies for individual pupils in their planning. Instead they focused on differentiating for groups within the lessons. None of the student teachers referred to cross-curricular learning opportunities to apply early reading skills. In observations, six of the seven participants used at least one specific aspect of classroom practice for teaching early reading less effectively than in their first school. This low-level deterioration may be explained by differences in school culture and the reading pedagogy on offer. These changes highlighted that even though aspects of 'responding and innovating' appeared to emerge in students' practice at the mid-point of the PGCE such practice could be fragile and context dependent.

Apply and connect

In the final stage of the PGCE, students showed increased awareness of pupils' ability to 'apply' reading skills. They were also able to 'connect' different elements of literacy in their teaching of reading and to

reinforce these links in other subject lessons. For example, in a phonics-focused session Hannah modelled and reinforced segmenting and blending whilst introducing a new phoneme-grapheme correspondence but also spent time clarifying vocabulary. She connected phonics and spelling, whilst reinforcing expectations for handwriting and emphasising ways to check for sense and meaning when writing:

Hannah asks them to write 'I have half an almond.' She counts the words on her fingers and says 'five words'. She repeats the sentence and reminds them an almond is a nut (linking back to earlier discussion). When one child writes 'I half an almond,' Hannah says 'What word are you missing?' and reads their sentence back to them. Hannah models writing the whole sentence with pupils telling her what to write, she reminds them about the 'e' at the end of have, reinforces capital letters and full stops, and models joined-up handwriting. [observation notes]

The student teachers' interviews included reference to monitoring and adapting provision to children's reading levels across the curriculum in a way that had not previously been present:

When I'm putting a question out on the table, I have to work out who's going to be able to read it and choose my words very carefully. (Natalie)

These elements were described as maximising 'opportunities to learn' in previous research (Wray et al., 2000; Rupley, Claire, and Nichols, 2009) and could be seen in most participants' practice by the end of the final school experience of the PGCE. The students reported feeling generally confident about teaching phonics and early reading:

They're not just reading the words any more. They're understanding the meaning more; they're understanding how to put all these skills together. And I've seen the steps of how they progress through that. (Ben)

The student teachers selected a wide range of texts and resources to support individual learning in specific phonics and guided reading activities. However, when discussing their practice, they prioritised phonics teaching and decoding as the mainstay in their teaching of reading.

The participants generally demonstrated effective, flexible teacher decisions in common with established teachers (Wray et al., 2000; Hall 2013; Wolfe 2015; Duke et al. 2018). However, there were still common areas for development in terms of personalising planning and confidence in teaching any phonics 'phases' they had not been responsible for during the PGCE. Additionally, the student teachers found that their host schools would not allow them to re-group pupils based on ongoing assessments. Therefore, some students experienced difficulties with managing phonics groups that contained pupils working at very different levels. These students suggested that they would have benefitted from more opportunities to use assessment to drive teaching and learning decisions for reading. This links to previous studies that emphasise the importance of learning to interpret data and conduct formal assessments as part of ITE (Pimentel, 2007; Carter, 2015). The mentors' focus on maintaining positive outcomes for their pupils in national tests for phonics and reading meant that students were encouraged to maintain the status quo in the school rather than develop their own practice in this way.

Extend and augment

The student teachers were all successful in gaining NQT posts, three in schools where they had completed part of their PGCE. They were able to 'extend' their practice into the first term as NQTs and noticeably began to 'augment' existing practice in schools. The NQTs demonstrated a newfound confidence to introduce different ways of working whilst continuing to maintain school expectations. In most cases, they raised criticisms of school practices in their interviews but in school they found surreptitious ways to improve on existing systems based on their convictions about learning to read. These changes mostly centred on promoting reading for pleasure and motivating their pupils to read. Hannah introduced a new reading corner to her room and Ben implemented a reading trolley for children to take home picture books to augment the phonics-based reading scheme. The intention behind this was to extend children's enjoyment of reading and knowledge of children's literature outside of a set reading scheme:

The school likes to follow a different reading to my ideals. It's very phonics based which sometimes is a little bit tricky for me ... because I like the enjoyment of the books. So I've got books the parents can sign in and out as they wish. They've got their phonics reading book but they can then take another book that they can share, one that interests the child. (Ben)

Four participants also mentioned building in opportunities for independent silent reading but none mentioned whether children had opportunities to listening to audio books or read on screen.

It was noticeable that, four out of the seven NQTs expressed dissatisfaction with the limitations of following prescriptive phonics schemes as they felt that these did not suit all learners or always enable pupils to apply their knowledge. In some cases, this meant introducing new strategies that moved beyond decoding. For example, Stephanie explained that she had introduced picture books and was encouraging a struggling year 3 pupil to predict words using context and picture clues. Whilst Laura described supporting her pupils learning English as an additional language (EAL) by developing verbal comprehension and vocabulary as a necessary precursor to reading comprehension:

I think they spend so much time segmenting the words when they're reading them that then they're just exhausted and when you ask them what it's about they just don't know because they've not really understood. So I'm trying ...to read to them and then ask them what they've understood about the story instead.

The marked change in the participants' willingness to augment school practices as an NQT might suggest that the students had previously felt inhibited to change practice in schools. It also may indicate that the participants were still influenced by the beliefs about teaching reading they held on entry to the course and that, in common with previous research, these remained a persistent influence even after school experiences during ITE (Twiselton, 2004; Bondy et al., 2007; Mutton, Burn and Hagger, 2010). However, it was clear that although The NQTs took the opportunity to augment practice they did not verbally challenge the prevailing reading pedagogy even when they found it lacking.

Participants generally agreed that the transition to teaching early reading and phonics as an NQT was challenging, even though their practice did not appear to have declined. They were particularly concerned by feeling increased pressure and responsibility for 'results' coupled with a decrease in day to day support in comparison with their training:

I'm thinking of being here for two or three years and these scores and their levels are all my responsibility, 'my doing' at the end of the day, so it's quite scary. (Hannah)

Six out of the seven NQTs reported anxiety about meeting national targets for pupil attainment in phonics and early reading and the main area for development that they indicated was their confidence in meeting the reading needs of pupils with SEN and EAL. In practice, the participants were observed using a range of effective strategies to support these learners but they lacked regular daily contact with a more experienced member of staff to discuss their pedagogical approaches and this worried them:

It's been tricky because I've gone ... into quite a deprived area where the children are really low ability and I've not really got a lot of support in my phonics or anything to be honest. (Chloe)

The lack of available guidance and support was a noticeable feature of the NQTs' experience. Most met with their NQT mentor weekly, or were expected to seek out support when needed. Three out of the seven participants experienced problems with limited induction to school schemes and limited, or no, guidance on planning and teaching phonics and reading in a new context with unfamiliar resources. It seemed that guidance and further development in phonics and reading were not considered a universal priority for NQTs, or schools simply did not have sufficient time and staff to provide this, a problem also documented for new secondary Maths and Science teachers in England (Haggarty and Postlethwaite, 2012).

Despite the withdrawal of daily, informal mentor dialogue and increased pressure about meeting pupil targets for phonics, the participants questioned and adapted existing school practices for teaching reading. This differed from the restrictions felt by NQTs in a secondary school environment (Cooper and He, 2012; McIntyre and Jones, 2014) and may have been a result of the sole responsibility that most primary teachers in England have for their classes. However, it was clear that problems of isolation, anxiety and lack of support were an issue for this group of participants in common with the withdrawal of mentor support found in other NQT studies internationally (Keay, 2009; Kane and Francis, 2013; Gut, et al., 2014).

Conclusion

The participants' experiences highlighted the focus on phonics teaching as the main priority in the teaching of reading in the 20 schools involved in the study. As a consequence, the student teachers received limited examples of wider pedagogy and a rich environment for teaching reading. The study itself was influenced by the prevailing culture in the schools where the students were placed. In this

context, observing student teachers learning to teach reading resulted in a focus on the technical skills of students leading phonics or, less frequently, guided reading teaching as this was the way in which reading was taught. With one or two exceptions, reading experiences were focused on phonetically decodable texts and phonics schemes.

The impoverished reading curriculum provided as a model for these student teachers was not a focus for the study but it highlighted student teachers' vulnerability to learning by imitation. Another feature of the student teachers' experience, which cannot be fully addressed here, was the limited time given for meaningful dialogue about pedagogy for reading with their school-based mentors during initial teacher education or their NQT mentors as they began their first posts.

A particular area of concern arising from this study was that the focus on maintaining school standards led to students replicating school practice rather than understanding the reasons behind it. This is significant when ITE in England increasingly relies on the guidance of schools and there is less university involvement in shaping practice and pedagogy. In order to help student teachers and NQTs become confident and effective teachers of early reading, it seems essential that universities support schools and students to pay more attention to wider pedagogy for reading. Most of the participants in the study developed effective pedagogy for teaching reading but this seemed to arise from a 'bricolage' of strategies gained through observation, and their own experiences as pupils, rather than through supportive critical dialogue. This potentially left these new teachers with unexamined misconceptions and gaps in their understanding of effective pedagogy. Universities must help students to overcome the challenges presented by current curriculum policy for reading and the associated accountability in schools. This may be achieved by assisting peer evaluation of school practices, facilitating open discussion with school colleagues and suggesting ways to provide a rich reading experience for learners whilst meeting external expectations. The findings of this study could be used to raise awareness of the common strengths and limitations during different phases of learning to teach reading. Tutors and mentors could discuss their expectations for subject knowledge and practice using the proposed categories 'notice and emulate', 'respond and innovate', 'apply and connect', 'extend and augment' and highlight where wider pedagogy as well as technical skills could be developed.

In addition, universities should work with schools to highlight areas where students and NQTs need support particularly with strategies that precede or follow phonics teaching, planning for individual reading levels, re-grouping pupils based on classroom assessment, developing the reading environment, using a range of literature and media and supporting readers who have struggled with the phonics approach. NQTs also need induction and CPD for teaching reading that is not purely focused on phonics. Honest, critical and reflective dialogue with mentors who explain their own decision-making may support pre-service and newly qualified teachers. In essence, when assessment and curriculum guidance prioritise one method for teaching reading, universities must work with schools, students and

NQTs to re-establish a broader understanding of what it means to be an effective teacher of early reading.

References

BANKS, F., LEACH, J. AND MOON, B. (1999) 'New understandings of teachers' pedagogic knowledge.' in J. Leach and B. Moon (Eds.), *Learners and Pedagogy*. London: Paul Chapman. pp. 89–110.

BASSEY, M. (1999) Case Study Research in Educational Settings. Buckingham: Open University Press

BEAUCHAMP, G., CLARKE, L., HULME, M., AND MURRAY, J. (2015) Teacher education in the United Kingdom post devolution: convergences and divergences. *Oxford Review of Education*, 41.2, pp.154–170.

BEACH, D. AND BAGLEY, C. (2013) Changing professional discourses in teacher education policy back towards a training paradigm. European Journal of Teacher Education, 36.4, pp.379-92.

BERA [British Educational Research Association] (2011) *Ethical Guidelines for Educational Research*. Retrieved from http://www.bera.ac.uk/guidelines.

BINGHAM, G. E., AND HALL-KENYON, K. M. (2013) Examining teachers' beliefs about and implementation of a balanced literacy framework. *Journal of Research in Reading*, 36.1, pp.14–28.

BINKS-CANTRELL, E., WASHBURN, E. K., MALATESHA-JOSHI, R., AND HOUGEN, M. (2012) Peter effect in the preparation of reading teachers. *Scientific Studies of Reading*, 16.6, pp.526–536.

BOGNER, K., RAPHAEL, L., AND PRESSLEY, M. (2002) How grade 1 teachers motivate literate activity by their students. *Scientific Studies of Reading*, 6.2, pp.135–165.

BONDY, E., ROSS, D., ADAMS, A., NOWAK, R., BROWNELL, M., HOPPEY, D., KUHEL, K., MCCALLUM, C., AND STAFFORD, L. (2007) Personal epistemologies and learning to teach. *Teacher Education and Special Education*, 30.2, pp.67–82.

BORKO, H. AND PUTNAM, R. T. (1996) 'Learning to teach.' in D.C. Berliner and R.C. Calfee (Eds.), *Handbook of Educational Psychology*. New York: Macmillan pp.673–708.

BROWN, S. AND MCINTYRE, D. (1993) *Making Sense of Teaching*. Buckingham: Open University Press

BURN, K. AND MUTTON, T. (2013) Review of 'Research-Informed Clinical Practice' in Initial Teacher Education. *Research and Teacher Education. The BERA-RSA Inquiry*. London: BERA. Retrieved from: https://www.bera.ac.uk/wp-content/uploads/2014/02/BERA-Paper-4-Research-informed-clinical-practice.pdf.

CARLISLE, J. F., KELCEY, B., ROWAN, B. AND PHELPS, G. (2011) Teachers' knowledge about early reading: effects on students' gains in reading achievement. *Interpretation, Evaluation and Policy Studies*, 4.4, pp.289–321.

CARTER, A. (2015) *Carter Review of Initial Teacher Training (ITT)*. London: DfE. Retrieved from https://www.gov.uk/government/publications/carter-review-of-initial-teacher-training.

COCHRAN-SMITH, M. AND LYTLE, S. L. (1999) Relationships of knowledge and practice: Teacher learning in communities. *Review of Research in Education*, 24.1, pp.249–305.

- COCHRAN-SMITH, M. AND ZEICHNER, K. M. (2005) Studying Teacher Education: the report of the AERA panel on Research and Teacher Education. Washington DC and Mahwan NJ: AERA and Lawrence Erlbaum associates.
- COE, R., ALOISI, C., HIGGINS, S. AND MAJOR, L. E. (2014) What Makes Great Teaching? Review of the underpinning research. London: Sutton Trust. Retrieved from http://www.suttontrust.com/researcharchive/great-teaching/.
- COHEN, L., MANION, L. AND MORRISON, K. (2011) *Research Methods in Education*. London: Routledge.
- COLE, M. AND ENGESTRÖM, Y. (1993) 'A cultural-historical approach to distributed cognition.' in G. Salomon (Ed.), *Distributed Cognitions: Psychological and educational considerations*. Cambridge: Cambridge University Press pp.1–47.
- COOPER, J. E. AND HE, Y. (2012) Journey of 'becoming': secondary teacher candidates' concerns and struggles. *Issues in Teacher Education*, 21.1, pp.89–108.
- CREMIN, T., MOTTRAM, M., BEARNE, E. AND GOODWIN, P. (2008) Exploring teachers' knowledge of children's literature. *Cambridge Journal of Education*. 38.4, pp.449–464.
- DARLING-HAMMOND, L. (2010) Teacher education and the American future. *Journal of Teacher Education*, 61.1–2, pp.35–47.
- DEPARTMENT FOR EDUCATION (DFE) (2011) *Teachers' Standards. Guidance for school leaders, school staff and governing bodies.* Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/665 520/Teachers__Standards.pdf
- DEPARTMENT FOR EDUCATION. (2015) *Initial Teacher Training Criteria: statutory guidance for accredited initial teacher training provision in England*. Retrieved from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/434608/ITT_criteria.pd f.
- DOUGLAS, A. (2015) A new research agenda for teacher education: The value of a partnership approach to classroom-based research. *Teacher Education Advancement Network Journal*, 7.1. pp3-13.
- DUKE, N. K., CERVETTI, G. N., AND WISE, C. N. (2018) Learning from exemplary teachers of literacy. *The Reading Teacher*, 71.4, pp.395–400.
- EDWARDS, A. AND PROTHEROE, L. (2003) Learning to see in classrooms: What are student teachers learning about teaching and learning while learning to teach in schools? *British Education Research Journal*, 29.2, pp.227-242.
- ELLIS, V. (2007a) Taking subject knowledge seriously: From professional knowledge recipes to complex conceptualizations of teacher development. *The Curriculum Journal*, 18.4, pp.447–462.
- ELLIS, V. (2007b) Subject Knowledge and Teacher Education: the development of beginning teachers' thinking. London: Continuum.
- ELLIS, S. AND MOSS, G. (2014) Ethics, education policy and research: the phonics question reconsidered. *British Educational Research Journal*, 40.2, pp.241–260.
- ELLIS, S. AND SMITH, V. (2017) Assessment, teacher education and the emergence of professional expertise. *Literacy*, 51.2, pp.84-93.

- FIELDING-BARNSLEY, R. (2010) Australian pre-service teachers' knowledge of phonemic awareness and phonics in the process of learning to read. *Australian Journal of Learning Difficulties*, 15.1, pp.99-110.
- FISHER, R. (2001) Analysing the role of the teacher in early reading: A lesson for researchers. *Teachers and Teaching*, 7.3, pp.297–313.
- FLYNN, N. (2007) What do effective teachers of literacy do? Subject knowledge and pedagogical choices for Literacy. *Literacy*, 4.3, pp.137-146.
- FREEBODY, P. (2003) Qualitative Research in Education: Interaction and practice. London: Sage.
- FRIEDRICHSEN, P., VAN DRIEL, D. J. H., AND ABELL, S. K. (2011) Taking a closer look at science teaching orientations. *Science Education*, 95.2, pp.358–376.
- GRIBBLE-MATHERS, B., SHEA, C. AND STEIGERWALD, S. (2009) 'Most of the focus was on reading': A comparison of elementary teachers' preparation in reading and writing. *College Reading Association Yearbook*, 30, pp.151–163.
- GRIFFITH, R. (2017) Pre-service teachers' in-the-moment teaching decisions in reading. *Literacy*, 51.1, pp.3–10.
- GROSSMAN, P., HAMMERNESS, K. AND MCDONALD, M. (2009) Redefining teaching, reimagining teacher education. *Teachers and Teaching*, 15.2, pp.273–289.
- GUT, D. M., BEAM, P. C., HENNING, J. E., COCHRAN, D. C. AND TALFORD-KNIGHT, R. (2014) Teachers' perceptions of their mentoring role in three different clinical settings: Student teaching, early field experiences and entry year teaching. *Mentoring and Tutoring*, 22.3, pp.240–263.
- HAGGARTY, L. AND POSTLETHWAITE, K. (2012) An exploration of changes in thinking in the transition from student teacher to newly qualified teacher. *Research Papers in Education*, 27.2, pp.241–262.
- HALL, K. (2013) 'Effective literacy teaching in the early years of school: A review of evidence', in J. Larson, J. Marsh (Eds.) *The Sage Handbook of Early Childhood Literacy*, 2nd edn, London: Sage pp.315–326.
- HOBSON, A. J. (2009) *Becoming a Teacher: Teachers' experiences of initial teacher training, induction and early professional development* (final report). Nottingham: Department of Children Schools and Families.
- HUDSON, P. (2013) Strategies for mentoring pedagogical knowledge. *Teachers and Teaching*, 19.4, pp.363–381.
- HUTCHINSON, S. A. (2011) Boundaries and Bricolage: examining the roles of universities and schools in student teacher learning. *European Journal of Teacher Education*, 34.2, pp. 177–191.
- KANE, R. G. AND FRANCIS, A. (2013) Preparing teachers for professional learning: Is there a future for teacher education in new teacher induction? *Teacher Development*, 17.3, pp.362–379.
- KEAY, J. (2009). Being influenced or being an influence? New teachers' induction experiences. *European Physical Education Review*, 15.2, pp.225–247.
- KLEICKMANN, T., RICHTER, D., KUNTER, M., ELSNER, J., BESSER, M., KRAUSS, S. AND BAUMERT, J. (2013) Teachers' content knowledge and pedagogical content knowledge: The role of structural differences in teacher education. *Journal of Teacher Education*, 64.1, pp.90–106.

- KNIGHT, R. (2017) The subject and the setting: Re-imagining opportunities for primary teachers' subject knowledge development on school-based teacher education courses. *Teachers and Teaching*, 23.7, pp.843–858.
- KO, J., SAMMONS, P. AND BAKKUM, L. (2013) *Effective Teaching: A review of research and evidence*. London: Centre for British Teachers. Retrieved from http://www.cfbt.com/en-GB/Research/Research-library/2013/r-effective-teaching-2013.
- LAVE, J. AND WENGER, E. (1991) *Situated Learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.
- LEADER-JANSSEN, E. M. AND RANKIN-ERICKSON, J. L. (2013) Pre-service teachers' content knowledge and self-efficacy for teaching reading. *Literacy Research and Instruction*, 52.3, pp.204–229.
- LOUDEN, B., ROHL, E., BARRATT-PUGH, C., BROWN, C., CAIRNEY, T., ELDERFIELD, J., HOUSE, H., MEIERS, M., RIVALLAND, J. AND ROWE, K. (2005) In teachers' hands: effective literacy teaching practices in the early years of schooling. *Australian Journal of Language and Literacy*, 28.3, pp.181–252.
- LUNENBERG, M. AND KORTHAGEN, F. (2009) Experience, Theory and Practical Wisdom in Teaching and Teacher Education. *Teachers and Teaching*, 15.2, pp. 225–240.
- MALATESHA-JOSHI, R., BINKS, E., HOUGEN, M., DAHLGREEN, M.E., OCKER-DEAN, E. AND SMITH, D. L. (2009) Why elementary teachers might be inadequately prepared to teach reading. *Journal of Learning Disabilities*, 42.5, pp.392–402.
- MATHEWSON-MITCHELL, D. AND REID, J-A. (2017) (Re)turning to practice in teacher education: embodied knowledge in learning to teach. *Teachers and Teaching: Theory and Practice*, 23.1, pp.42-58.
- MCINTYRE, J. AND JONES, S. (2014) Possibility in impossibility? Working with beginning teachers of English in times of change. *English in Education*, 48.1, pp.26–40.
- MCARDLE, F. (2010) Preparing Quality Teachers: making learning visible. *Australian Journal of Teacher Education*, 35.8, pp. 60–78.
- MILES, M.B., HUBERMAN, A.M.AND SALDANA, J. (2014) *Qualitative Data Analysis. A methods sourcebook.* London: Sage.
- MUTTON, T., BURN, K. AND HAGGER, H. (2010) Making sense of learning to teach: learners in context. *Research Papers in Education*, 25.1, pp.73–91.
- NESS, M. (2017) "Is that how I really sound?" Using iPads for fluency practice. *The Reading Teacher*, 70.5, pp.611–615.
- OFSTED [Office for Standards in Education] (2012) From Training to Teaching Early Language and Literacy. Retrieved from http://www.ofsted.gov.uk/resources/training-teaching-early-language-and-literacy.
- PHELPS, G. (2009) Just knowing how to read isn't enough! Assessing knowledge for teaching reading. *Educational Assessment, Evaluation and Accountability*, 21.2, pp.137–154.
- PHELPS, G. AND SCHILLING, S. (2004) Developing measures of content knowledge for teaching reading. *Elementary School Journal*, 105.1, pp. 31–49.

- PIGGOT-IRVINE, E., AITKEN, H., RITCHIE, J., FERGUSON, P. B. AND MCGRATH, F. (2009) Induction of newly qualified teachers in New Zealand. *Asia Pacific Journal of Teacher Education*, 37.2, pp.175–198.
- PIMENTEL, S. (2007) *Teaching Reading Well: A synthesis of the international reading association's research on teacher preparation for reading instruction*. Retrieved from http://www.reading.org/Libraries/reports-and-standards/teaching_reading_well.pdf.
- PUTNAM, R. T. AND BORKO, H. (2000) What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29.1, pp.4–15.
- RISKO, V. J., ROLLER, C. M., CUMMINS, C., BEAN, R. M., COLLINS BLOCK, C., ANDERS, P. L. AND FLOOD, J. (2008) A critical analysis of research on reading teacher education. *Reading Research Quarterly*, 43.3, pp.252–288.
- RUPLEY, W. H, CLAIRE, T. R. AND NICHOLS, W. D. (2009) Effective reading instruction for struggling readers: The role of direct/explicit teaching. *Reading and Writing Quarterly*, 25.2, pp.125–138.
- SANDEN, S. (2012) Independent reading: Perspectives and practices of highly effective teachers. *The Reading Teacher*, 66.3, pp.222–231.
- SCHÖN, D. A. (1983) *The Reflective Practitioner: How professionals think in action*. New York: Basic Books.
- SHULMAN, L. S. (1986) Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15.2, pp.4–14.
- SHULMAN, L. S. (1987) Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57.1, pp.1–22.
- SINGER-GABELLA, M. AND TIEDEMANN, P. (2008) Tasks and trajectories in learning to teach. *Journal of Curriculum Studies*, 40.4, pp.457–480.
- STAKE, R. E. (1995) The Art of Case Study Research. London: Sage.
- STAKE, R. E. (2008) 'Qualitative Case Studies.' in N.K. Denzin and Y.S. Lincoln (Eds.), *Strategies of qualitative inquiry*. California: Sage pp.119–151.
- STARK, S. AND TORRANCE, H. (2005) 'Case Study.' in B. Somekh and C. Lewin (Eds.), *Research methods in the social sciences*. London: Sage pp.33–41.
- TOPPING, K. AND FERGUSON, N. (2005) Effective literacy teaching behaviours. *Journal of Research in Reading*, 28.2, pp.125–143.
- TWISELTON, S. (2000) Seeing the wood for the trees: The National Literacy Strategy and initial teacher education, pedagogical content knowledge and the structure of subjects. *Cambridge Journal of Education*, 30.3, pp.391–403.
- TWISELTON, S. (2004) The role of teacher identities in learning to teach primary literacy. *Educational Review*, 56.2, pp.157–164.
- WHARTON-MCDONALD, R., PRESSLEY, M. AND HAMPSTON, J. M. (1998) Literacy instruction in nine first-grade classrooms: Teacher characteristics and student achievement. *Elementary School Journal*, 99.2, pp.101–28.
- WOLFE, S. C. (2015) Talking policy into practice: probing the debates around the effective teaching of early reading. *Education 3–13*, 43.5, pp.498–513.

WONGSOPAWIRO, D. S., ZWART, R. C., AND VAN DRIEL, D. J. H. (2017) Identifying pathways of teachers' PCK development. *Teachers and Teaching*, 23.2, pp.191–210.

WRAY, D., MEDWELL, J., FOX, R. AND POULSON, L. (2000) The teaching practices of effective teachers of literacy. *Educational Review*, 52.1, pp.76–84.

ZEICHNER, K. M. AND GORE, J. (1989) *Teacher Socialization*. East Lansing, Michigan: National Center for Research on Teacher Education. Retrieved from http://eric.ed.gov/?id=ED326486.

Table 1. Timeline of the study and PGCE course overview

Term 1	September 2013 December 20														er 201	3	
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	holiday
Reading workshop 1 (2 hours)																	day
Phonics workshop 1 and 2 (4 hours)																	
Optional <i>Storysacks</i> & reading seminars (2 hours)																	
Taught content (not reading specific)																	
School placement (non-assessed)																	
Data collection																	
TERM 2	January 2014 April 2014)14	
Week	17	18	19	20	21	22	23	24	25	26	27	28	29	30		holiday	
Assessment of reading workshop (2 hours)																ay	
Optional workshops: phonics and reading schemes (2 hours)																	
Taught content (not reading)																	
Assessed school placement (1 week non-assessed)																	
Data collection																	
TERM 3	April 2014 July 2014																
Week	31	32	33	34	35	36	37	38	39	40							
Taught content (not reading)																	
Assessed school placement																	
Taught content (not reading)																	
Data collection																	
Dates	Sept 2014 Dec 20														Dec 20)14	
First Term of NQT year or re-sit placement																	
Data collection																	
	Jan 2015 April 201:)15				
First term of NQT year for 1 student																	
Data collection																	

Table 2. University reading related tasks

Before and during school experience - placement 1

Portfolio self-study tasks:

Audit of subject knowledge.

Individual action plan set from audit outcome.

Begin to add information about children's literature to the *Teacher's Reading Passport*.

Read 'Rose Review' (2006).

Become familiar with Letters and Sounds (DfES 2007).

Become familiar with Clackmannanshire synthetic phonics study (Johnston and Watson 2005).

Explain the simple view of reading (Rose 2006).

Outline the phases of Letters and Sounds (DfES 2007).

Provide definitions for phonic terminology.

Investigate phonics games.

Practise phoneme articulation and grapheme-phoneme correspondence.

Reading comprehension: complete online learning unit on prediction, inference and deduction.

School-based tasks:

Literacy learning environment analysis.

Storytelling planner.

Evaluation of the school phonics scheme.

Observe phonics.

Plan a phonics session (or preferably a series of phonics sessions). Teacher to observe and give feedback.

Reading session (guided or shared) to be planned and observed.

Learning and Teaching Portfolio essays:

Students submit an essay on a choice of topics some of which relate to phonics and reading. Students to give rationale for essay choice, usually based on aspect for development from audit.

Guidance in placement handbook linked to the *Teachers' Standards* (DfE 2011):

Follow school procedures

regarding support of early reading. (Standard 6)

Observe the teacher teaching phonics, guided reading and English or in FS1 (Nursery) teaching phonological awareness and a storytelling session. (Standard 3)

Teach using shared reading or visual literacy in a group. (Standard 4)

Suggest reading targets through discussions with mentor based on assessment. (Standard 6)

Familiarise yourself with progression in systematic synthetic phonics. Know the phase and strategies to teach effectively in your classroom. (Standard 3)

Before and during school experience - placements 2 and 3

School-based tasks:

Observe phonics.

Plan a phonics session (or preferably a series of phonics sessions). Teacher to observe and give feedback. Reading session (guided or shared) to be planned and observed.

Collate prompt questions for a guided reading session. Carry out individual reading analysis of areas for development with one pupil.

Identify a small group of pupils needing extra support and plan a sequence of reading or writing intervention sessions. Evaluate the impact of intervention session on pupils.

Guidance in placement handbook linked to *Teachers' Standards*:

Analyse a child's reading. (Standard 6) Mentor to observe phonics and guided reading. (Standard 4)

Discuss methods for students to keep records on pupils' achievement and progress in reading and phonics. (Standard 6)

Complete school-based tasks from the *Learning and Teaching Portfolio*. (Standard 3)