A new research agenda for teacher education: the value of a partnership approach to classroom-based research Teacher Education Advancement Network Journal Copyright © 2015 University of Cumbria Vol 7(1) pages 3-13

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Abstract

This paper takes up ideas from previous research projects which advocate student teachers undertaking research activity as part of their teacher education course. The aim is to strengthen the call for maintaining university input into teacher education preparation, which is currently being marginalised by new policies increasingly promoting school-based training for teachers in England. Twelve Religious Studies student teachers undertook classroom research during their school teaching practice or practicum (each observing and interviewing three different teachers with the same class with a focus on differentiation). Qualitative data content analysis was used to explore the data. Teacher educators generated data on the reflections of these student teachers. Findings suggest that conducting research was a significant learning event for the student teachers in that their development as researchers helped their appreciation of the importance of differentiation strategies when teaching in diverse classrooms. Further developments for extending the learning opportunities for all involved in teacher education utilising the expertise of the academy are forwarded. A video conference with others undertaking similar research in the USA helped to explore the findings from an international perspective.

Keywords

Research-based teacher education; school practice; practicum; differentiation; theory and practice; socio-cultural learning.

Introduction

The political drive for school-based teacher education in England predicts that within a year the university will no longer be the leading provider of teacher education (Furlong 2013). Alternative routes in recent years have shown 'a proliferation of training routes and a marked reduction in university-led provision' (Gewirtz 2013, 10). A move away from Higher Education input in student teacher education has also been noted in the USA where 'increasingly, school districts are taking over the task of preparing teachers for their schools' (Grossman 2008:11) with similar acknowledgements that 'policy making involves contentious debate as well as complicated political manoeuvring and strategies' (Cochran-Smith et al., 2013). The current situation with teacher education playing a major part in many Faculties of Education in English universities is likely to be unsustainable (Furlong, 2013). Some English universities have stopped educating teachers altogether. This crisis, it could be argued, has partially come about from a lack of public justification for the importance of the university's unique contribution is for student teachers taking a course leading to qualified teacher status (HEA, 2013; BERA and RSA, 2013).

As well as the above, concern that higher education teacher educators in Europe are becoming solely trainers and mediators of government policy provided impetus in this research for challenging what has been termed the 'training paradigm' (Beach & Bagley, 2013). Therefore, the commitment

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to this pilot study was supported by a desire to integrate research with a teacher education course in order to further develop staffing links in the university, counteracting a tendency to view Education staff as either academic or practitioner-focused (Deem & Lucas, 2007). Also, collaborative research developments between universities and schools have been seen for many years to help develop critical reflection whilst interrogating practice (Darling-Hammond, 1994).

Learning in teacher education school practices

The student teacher education course should be the ideal time to integrate theory and practice and this can be done by linking university coursework assessment to the school practicum (Allen 2014:137). National studies of teacher education exploring the role of the teaching practice or practicum have suggested that forms of research activity are an effective way of integrating theory and practice. The importance of the nature of staff involvement and a course design that makes explicit links between theory and practice are paramount in supporting student teacher learning opportunities in the school teaching practice (Darling Hammond, 2006). In previous research studies (Ellis, 2008; Husbands, 1995) learning opportunities for student teachers have been seen to be enriched when they are involved in research collaboration partnerships with researchers in universities and practitioners in schools (also see more current examples in the case studies in the HEA report 'Learning to Teach Part 2'(2013). Working with collaborative research approaches during student teacher education also meets the call 'that it is the responsibility of pre-service teacher education to provide novice teachers with feasible tools to systematically examine their work as teachers and educators and to become researchers of their own teaching' (Smith & Sela, 2005:306).

This research study also explored how far the student teachers felt their own personally conducted research was a significant learning process (Maaranen & Krokfors, 2007) and questioned whether research should be considered an essential part of becoming a teacher (Toom et al., 2010). Student teachers have been seen to support the inclusion of research methods in their teacher education programme, for example, in Australia (Vialle et al., 2003) and in Finland (Jyrhama et al., 2008). However, suggestions in the teacher learning literature also indicate that more is needed than just involving student teachers as researchers in order to overcome the gap between theory and practice (Korthagen, 2010). This gap has been associated with what has been termed 'the transition shock' (Veenman, 1984) which occurs when student teachers leave the university setting to work in schools and adjust to school practices with little regard to previously discussed theoretical insights on teaching and learning. This concept has been seen in terms of socialisation (Robinson, 1998), but also in terms of relating general theory to specific contexts which may appear less relevant to actual practice, which is 'generally ambiguous and value-laden' (Schön, 1983). It has also been found that student teachers' preconceptions on teaching and learning are difficult to change after years of personal experience of being a pupil themselves (Lortie, 1975).

In wishing to address a possible transition shock for the student teachers when viewing lessons in the first days of their teaching practice in schools, we introduced the pilot study by presenting the results of a previous study. Undertaken by myself as a researcher observing and interviewing five different teachers who taught the same class of students (Douglas, 2014b, Denessen & Douglas, 2015), the study focused on teachers' differential behaviour and questioned how they understood and responded to diversity in their classrooms. It is important that teachers differentiate based on accurate assessment of student needs (Tomlinson et al., 2003). These needs affect and are affected by the social situation. In looking at how the learning opportunities in school classrooms can afford or constrain student learning, learning was considered in terms of the changing relationship a learner has with their social situation of development, defined by Vygotsky as 'a system of relations between the child of a certain age and social reality' (1978:199). A sociocultural perspective accepts that the social system within which pupils learn is mutually and actively created by the teacher and the pupils together. This perspective encourages observation of pupils' interaction with their

environments, where 'learning is dependent on several factors but most vital is the engagement of the learner with the environment, that is a psychological engagement with the setting in which the learning takes place' (Jacobs & Harvey 2010:195). Therefore, the student teachers in the pilot study were encouraged in their observations to focus on the learning setting of the classroom and to consider the importance of the social conditions in order to understand the pupils' thinking and development.

The teacher education literature also recognises the problems of transfer of learning for student teachers between the university and the school (Philpott, 2006; Douglas, 2014a). The different priorities in the two settings (student teacher learning in the university and pupil achievement in the school) can threaten the focus of the work activity in relation to teacher education. The focus may be limited to the perspectives of the school 'by internalising only the specific practices and world view of the particular department in the particular school in which a student is placed (Philpott, 2006:287). Similarly, the respective roles of those involved in teacher education – the school mentor and the university tutor – may also differ owing to their different foci. In a review of 113 empirical studies on the student teacher practicum 'mentor-teachers focused on the teaching and acquaintance with the pupils, while supervisors focused on pre-service teachers reflecting on their experiences and getting to know their abilities as prospective research activities in bringing a joint focus to the work in teacher education. Un project was seen as the first steps in initiating a joint focus on a research-based activity for the teacher education course at the university.

The pilot study

The research project was undertaken by a group of 12 Religious Studies student teachers on a one year teacher education course. The group of students made up the full cohort of a Religious Studies one year postgraduate certificate of education course (PGCE) at a post 92 university in England. In the UK, there is a distinction between universities that existed before 1992 (often referred to as the 'old' universities) and those colleges of higher education and polytechnics that have been redesignated as universities since 1992 (the 'new' universities). As part of their first term's work for their Professional Studies assignment the student teachers attended four research methods workshops. The Professional Studies module aims to develop expertise and effectiveness as a classroom teacher with an understanding of what constitutes and promotes effective learning central to the module. As a Reader with research teaching responsibilities at the University the research methods workshops were taught by me. The student teachers then undertook classroom research, each observing and interviewing three different experienced teachers who taught the same class of students. The strength of the evidence supporting the interpretation of the learning opportunities in the research is recognised in terms of the limitations of doing a small scale pilot study for one group of student teachers in one teacher education course. The sample is not representative and the data are not viewed as being open to generalisation. However, multiple perspectives within one cohort of students chosen because of their lead teacher educator's interest in the pilot project provided rich data that were central to understanding the complexity of introducing a research-based assignment into student teachers' school teaching practices. Having obtained informed consent from all people involved, I followed BERA's ethical guidelines for conducting the research and secured the university's research ethics approval.

An objective of this research study was to enable student teachers to compare the perspectives of classroom teachers on how they give meaning to differentiation in order to facilitate their own development of theoretical and practical knowledge regarding responsive teaching and inclusive practices. The research questions asked:

- 1. Did student teachers view their development as researchers during the research process as significant to their learning about diversity?
- 2. Did the study enable student teachers to integrate their empirical findings into a theoretical background?

Previous studies looking at the learning opportunities for student teachers in school practice (Douglas, 2014a) highlight the value of all research participants jointly working on a shared motive (as in researching differentiation in the classroom). Utilising a university researcher who did not teach the student teachers but supported them in the research process, a US academic who had recently undertaken a similar research project with student teachers in the States and a teacher educator (the principal lecturer for Religious Studies) to work with teacher participants and the student teachers went some way to building a collaborative approach.

Research methods

The research presented draws upon the analysis of data generated from a student teacher focus group interview and a video conference with an academic in the USA (both audio recorded), and the student teachers' course assignments as well as field notes taken during four research methods workshops based at the university. These different research methods were used in order to generate data on the student teachers' experience of taking part in a research project and their perceived learning as a consequence. All the student teachers undertook their fieldwork individually in their first teaching practice schools. Analysing the student teachers' research data was supported at the university. Their research work was written up as part of their Professional Studies assignment and assessed for the PGCE course but not by the university researcher. Therefore, the aim was to develop and pilot a small-scale qualitative study which was integrated into the teacher education course. The student teachers linked their data analysis to their reading of the literature which focused on an aspect of classroom differentiation of their own choice, for example, working with pupils with special educational needs. The task for the assignment was a compulsory part of the PGCE course. However, participating in the research pilot study with the university researcher was voluntary as was taking part in the focus group interviews, and giving consent for course assignments to be analysed.

This pilot study considers in its analysis of the data on the student teachers' perceived learning a three level model of teacher learning (Korthagen & Lagerwerf, 1996) which takes the causes of the theory-practice divide into account. The model acknowledges the often tacit behaviour characteristic of teaching which combines both emotional and cognitive aspects of dealing with situations. The model considers how practical experiences may develop into more conceptual knowledge about teaching at an abstract and theoretical level. Using a content analysis method for both the oral (transcribed) and written accounts, the qualitative data was considered from the viewpoint of the two research questions. Using coding techniques based on a grounded theory approach to the analysis of qualitative data (Glaser & Strauss, 1967) resulted in the creation of categories which represented three levels of teachers' thinking (thinking in action, thinking in terms of practical theories and thinking in terms of meta-theories of education). These categories were then considered against the criteria for the three level model of teacher learning.

Findings and discussion

Findings from the study suggest that conducting research was a significant learning event for the student teachers in that their analysis of their development as researchers was seen to enhance their developing appreciation of the importance of differentiation strategies when observing teaching in diverse classrooms.

The student teacher focus group and video conference

The analyses of the responses to the questions in the student teacher focus group were also supported in the video conference with the researcher in the USA. The student teachers felt that the knowledge gained from undertaking their research changed their understanding and thinking about classroom practice and helped them be more reflective in their own teaching:

'From not knowing what I was really looking for, when I had the research workshops you think 'so this is how I can observe' and then you start to analyse a bit more specifically and I think it was really helpful to have that focus as you can start to really look at what is going on and when you reflect critically on that, it does have a lot more meaning'

(Focus Group, 2 June 2014).

The research activity appeared to facilitate early and meaningful links between research and practice with the student teachers specifically differentiating between the social situation of development for the pupils and the more generic ideas often forwarded in the literature:

'I picked 2 students to observe and I chose EAL [English as an additional language] as my focus and how strategies for teaching these students work. Do the strategies work across the board or are they effective in this particular classroom with this student? So I am trying to identify the best strategy for an individual student in a particular situation as opposed to finding a strategy like an umbrella strategy for everyone, which doesn't always work'

(Video Conference, 4 June 2014)

The data from the focus group interview with the student teachers highlighted a positive response to undertaking research in schools. Regarding the research methods workshops in the university as 'useful' they particularly valued the opportunity to consider ethical issues with regard to working in classrooms as a 'researcher' rather than as a student teacher. When asked what the difference was they pointed out how for some, they felt nervous undertaking a new role where research was for them associated with academic pursuits and 'with professors in their offices' (4 June 2014) rather than seeing research as relevant to all practitioners who as potential researchers of their own practice can benefit from participating in the research process:

'I was a TA [teaching assistant] before, so really used to going into a classroom setting, so that part wasn't daunting but I felt because I was doing research, it was really important, and that maybe I wasn't adequate so I was a bit nervous about that ... now I feel I got a lot out of it and I am happy I did it, but at the time, the word 'researcher' was so – am I really one?'

(Focus Group, 2 June 2014).

The above was also connected to a perceived possible suspicion of researchers by practitioners in schools. This was spoken of in greater detail by the US academic who recommended that the American pre-service teachers produce 'deliverables' for the class teacher so as to ensure that their research work was seen as contributing to the teaching practice in the school and 'to counter an impression that the student teacher was there to evaluate the teacher' (Video Conference, 4 June 2014). For example, one student teacher created a board game in order to stimulate the tactile learning of the children she was focusing on for her observations. The student teachers then documented the impact of these support materials.

This idea may help to increase the perceived value of the research process for school teachers but in the study in England the focus was on the student teachers (and in future the teachers) to develop

the confidence to be critical and to see differently with research data generated for specific research questions. Ideally, this could create a 'powerful pathway for exploring challenging issues' (Merino & Holmes 2006:95) and provide a nonjudgmental basis for considering teaching strategies. The aim being to also pave the way for ongoing critical reflection as a way of understanding classroom practice and appreciating the value of this way of working in future practice.

The professional studies assignments

In their Professional Studies assignments the student teachers recounted a number of examples of the three levels of teachers' thinking (thinking in action, thinking in terms of practical theories and thinking in terms of meta-theories of education). One student teacher noted teachers' thinking in action:

'After observing RE lessons I became aware that teachers were hesitant to use group work within their lessons. Quite often teachers would have a group work activity planned but steer away (skip the PowerPoint slide) from the task due to the class behaviour or engagement'.

The student teacher goes on to cite literature in terms of practical theories, which recommend structuring group work so that it builds upon smaller interactions in order to counter the behaviour of challenging pupils which may dominate the classroom environment. This pre-service teacher then explained in her assignment that 'through her research [she had] highlighted conditions for successful group work: pupils must feel safe, secure and confident in sharing ideas with their group' (Baines et al., 2009:20). This could be seen as beginning to think in terms of meta-theories of education in order to inform future practice: 'I have chosen to try and implement group work in my classroom that will engage the whole class.' Identifying through observations and interviews how teachers' thinking was believed to work on a number of different levels enabled pre-service teachers to articulate more carefully how the literature could inform analyses from their empirical data.

Another student teacher focused her observations on a pupil with Autistic Spectrum Disorder (ASD) and noted in her interviews how 'teachers and LSAs (Learning Support Assistants) often questioned whether Student A should be in mainstream education'. The research literature in her assignment was then used to discuss the role of the LSA in the classroom and this was broadened further by questioning the nature of inclusive education, noting contested debates about this. The UK government's strategy for pupils with special educational needs (SEN) 'which aims towards an inclusive education where teachers should be trained to educate pupils with SEN in their local community' was considered alongside other research literature advocating the potential for mainstream education to cause separation for pupils with ASD, thereby leading to their low self-esteem. Observations of the focus pupil in several different lessons in the student teacher's research led to the following assignment reflection:

'Often during paired work, Student A would work with an LSA instead of working with a student partner. Having spoken to several of Student A's teachers and LSAs I found out that as Student A has a statement, his parents can decide the school in which he attends. Teachers and LSAs expressed their worry about the learning and development of Student A, as over time he may become disengaged and separate from his peers'.

The relative richness of the data generated from the student teacher-as-researcher in comparison to the opportunities the student teacher may have had when considering the situation when not operating as a researcher (but when working with the class as a novice teacher) may be seen to encourage a view of the educational setting from a number of different perspectives. These perspectives may encompass examples of teacher thinking in

action as well as thinking in terms of practical theories and potentially meta-theories of education.

However, when comparing student teachers' analyses of their own research data with the data generated by the university researcher and teacher educator, analysis indicates that a 'realistic approach' to teacher education (as advocated by Korthagen & Lagerwerf (1996) developed at Utrecht University) based on the three level model of teacher learning requires a deeper level of reflection from the student teachers. This would be desirable in order to fully appreciate the possible conceptualisations of teacher learning (identified in the model as moving from the *gestalt* level (where learning is rooted in practical experiences) to a theoretical level (where a network of principles are logically ordered)). Our analysis of the data considered the three categories of teacher thinking against the criteria for the three level model of teacher learning. It was evident in many of the student teachers' responses to the teaching differentiation explored in the classrooms that practical strategies were often seen in terms of solutions to the problems which had been identified in the observations and then discussed in interview. Hence, the specific area of differentiation was taken forward by the student teachers by their researching of the relevant literature. This frequently led them to find and suggest possible answers to the concerns raised in the data rather than to explore the specific context and complexity of the situation observed.

Social factors were identified as being important for analysing the situation but frequently strategies forwarded for future practice did not necessarily take these into account. For example, one student teacher focused on a pupil with English as an Additional Language (EAL):

'This pupil felt that expressing his opinion was not for the classroom setting but rather the classroom was a place he would sit and be a passive learner. The level of his lesson interaction that was causing barriers to his learning was not simply a language issue but also due to social factors. Knowing who the EAL student is and what it means to be an individual is the key starting point [when considering differentiation]. The strategies that I would use are extension tasks whereby the student can sit and think about the lesson and really express what they understand. The second [strategy] would be through using keywords and sentence starters to properly give the student a good RE literacy knowledge. I feel that these two strategies are the best way to get the best out of the student.'

Strategies identified in the literature were often seen as tools or resources which could be implemented regardless of the social situations noted in the specific classrooms. For example:

'From my observations of one particular pupil, identified as 'disaffected', I recognise that in addition to classroom routines, it is vital that the curriculum is delivered to pupils in a way which both heralds and inspires creativity; as Blum suggests, entertainment in the classroom "is key to success" (Blum, 1999:43). In re-engaging disaffected pupils, I hope to deliver inspiring lessons which pupils find enjoyable.'

Here the context of the specific classroom is less observed and a general aim for preventing the disaffection in the pupil by the teaching inspiring them to be successful is seen in a somewhat vague, albeit laudable, way. Similarly, citing grey literature (government documents for example) as part of the research literature review often appeared to simplify problems for the student teachers and play down the complexity of the teaching and learning process:

'Arguably, one explanation for disaffected pupils failing to work consistently as part of a group is that they "lack the skills necessary to interact positively with peers"

(Department for Education 2010, 1). However, provided "instructions are straightforward and direct" this is a pattern that can be rectified

(DfE 2010, 7).'

Having not had the opportunity through practical experiences of teaching as teachers to develop their 'gestalt level' (one which is rooted in practical experiences, and which is often unconscious and not only of a cognitive nature) the student teachers relied on the research literature and their observations and interviews with teachers to consider schemas which influence teacher behaviour. As Korthagen (2010) observes when defining his concept of realistic teacher education:

If a teacher does reach the theory level, the knowledge at this level first has to become part of an action-guiding schema in order to start influencing behaviour, or even better, it has to be integrated into a gestalt in order to become part of the teacher's routine (Korthagen 2010, 412).

Many of the student teachers were aware that teaching is a complex activity and they did acknowledge both in their assignments and in the focus group interview that they, as student teachers, were on a learning trajectory. They also felt that an appreciation of the complexity of teaching effectively was not something that was easily explained or observed:

'I am self-aware enough to consider that the poor levels of speaking and listening that I have experienced in the classroom are perhaps due to the shortcomings of my own practice. While I see the value and sense in the strategies discussed, it is important to remember that they can only be effective when used in conjunction with the many other skills and experiences that make an effective teacher. Furthermore, teaching is such a complex activity which makes it difficult to underpin one or even several strategies that will indefinitely meet the needs of disengaged learners.'

In order for student teachers to fully consider their empirical findings with a theoretical background we propose that they would need to further develop their conceptualisation of the teacher learning process which could be enhanced by their own developing and ongoing experience of teaching in the classroom. Ideas for building on the student teachers' research analyses throughout their PGCE course and into their second teaching practice (where they experience more classroom teaching as teachers themselves) are being considered. This could potentially further help develop their understanding of teacher learning and be advantageous for embedding a research-based agenda within the PGCE programme.

Concluding comments

The research literature highlights the value of research work playing an integral part of teacher education courses with student teacher research having the potential to create important influences on the ways in which classroom teachers come to view links between practice and research and to foster communities of inquiry and critical alignment (Kotsopoulos et al., 2012:35). This and other studies have shown how reflective skills of student teachers are enhanced by participation in classroom-based qualitative research (Lambe, 2011). The place of research in student teacher education has been the focus of two large scale research projects in 2013 (BERA & RSA and HEA) with a view to highlighting the importance of higher education's inclusion in educating new teachers. These studies emphasise what Furlong (2013) has described as the 'contestability of knowledge' which he advocates as the primary purpose of the university: to challenge underlying assumptions and to teach students to think critically about knowledge and values so as to gain the skills needed to form their own judgements. Student teachers strongly advocate embedding coursework assessment in the school teaching practice (Allen, 2014:149) and research has been seen to provide

opportunities for teacher candidates to transform their orientation towards teaching through personal, systematic and intentional exploration of practice (Price, 2001:71).

The three-level model of teacher learning concurs with views of how knowledge develops in the interplay between the individual and social systems (as outlined earlier when considering sociocultural classroom contexts). The notion of situated cognition (Brown et al., 1989) concurs with the basic assumption of Korthagen's three-level model, namely that knowledge and insight develop in a bottom-up manner within the context of social experiences. Lave and Kvale (1995:219) state that the idea of situated cognition represents 'a vision of cognition as the dialectic between persons acting and the settings in which their activity is constituted'. Working in collaborative research projects encourages this approach to developing opportunities for student teacher and teacher learning. It is of benefit to all involved in teacher education if their interests in the school setting are negotiated. This can occur when processes are created which enable participants to present their way of thinking about teaching and education. Research activity can engender open discussion of specific events and cases within the school setting, thereby 'merging [student teacher] practicums into school reality' (Cohen et al., 2013:30).

Extending the notion of novice teachers researching with more experienced practitioners in the classroom as a process could be further developed by using a version of Developmental Work Research change laboratory workshops (Engeström, 2008; Douglas, 2012). These are designed to promote a shared purpose to research work by involving classroom practitioners in exploring the data with the aim of developing shared values on the principles of teaching. Student teachers who are more predominantly based in schools on the School Direct scheme (DfE, 2010a) where the involvement of universities is reduced (Medwell & Wray, 2014:75) could also benefit from working in this way. Exploring the potential of the teacher, school mentor and student teacher partnership as a way of embedding research-based agendas into both school-based as well as university-based teacher education courses could further support an enquiry based approach to learning to teach.

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