Can trainees' perceptions of the delivery of the foundation subjects & R.E. in primary teacher education be enhanced by using a Three-Lens Model of Delivery?

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Sarah Misra* and Maggie Webster**
Staffordshire University, Edge Hill University**
sarah.misra@staffs.ac.uk

Abstract
This paper reports on the findings of a small-scale research project, carried out by a team of teacher educators working in the Primary Foundation Subjects at a university in the North West of England. The team worked together to develop the Three-Lens Model, a teaching model that aimed both to provide a unification of subject delivery across the module whilst splitting subject delivery into three clear areas: subject-"ness" (subject identity), how to teach (pedagogy) and ideas of what to teach (toolbox).

The paper presents a discussion of the perceived effectiveness of the Three-Lens Model. It gathers data from trainees across a variety of cohorts and programmes within the School of Education who were exposed to the model of delivery for one year and specifically questions how successful it was in providing a cohesive delivery structure and in raising the trainees' perceptions of the pedagogical element of their training. The findings suggest that this was a largely successful delivery model which could potentially benefit other training providers.

Key Words
Initial teacher education ; primary education ; pedagogy ; foundation subjects ; three-lens model .

Introduction

Despite reports such as the Donaldson Review (2011) which strongly maintained that teacher education requires a more integrated relationship between theory and practice, recent changes in initial teacher education (ITE) appear to have favoured a skills-based, apprenticeship model of training. Compounding this, the release of high-profile reports such as the Carter Review (2015) have led to a revival of the pedagogy v practice debate. In many cases it seems that our trainee teachers often value 'what to teach' above 'how to teach' not taking on the importance of the latter until later in their careers Hobson et al. (2009).

In addition to this problem, primary-teacher educators face a challenge in making sure that trainee teachers are equipped to teach every subject well, so that each child is able to benefit from a rich curriculum. However, for some time Ofsted (The Office for Standards in

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Education in England) has reported that primary education encompasses a two-tier curriculum in which the teaching of the 'core' subjects is consistently high while the delivery of foundation subjects (art, design & technology, geography, history, music, physical education and religious education) remains patchy Ofsted (2009).

As teacher educators working in the Primary Foundation Subjects Team at a university in the North West of England we found ourselves troubled by both of these issues but also felt that there was a strong link between the two in that trainee teachers, when learning how to teach the foundation subjects needed to understand each separate subject, its uniqueness and specific pedagogy in order to build subject confidence and expertise.

The team worked together to develop the Three-Lens Model, a teaching model that aimed to split subject delivery into three clear areas: subject-'ness' (subject identity), how to teach (pedagogy) and ideas of what to teach (toolbox). This paper is a discussion of the perceived effectiveness of the Three Lens Model and draws on the findings of a small-scale research project which was carried out across a variety of cohorts and programmes within the School of Education after one year of subject delivery using the Three-Lens Model.

Background and Context

Theory-Practice Gap?

Teaching comprises a vast array of skills and knowledge about both practice and pedagogy and the term 'pedagogy' itself seems to encompass a diversity of definitions, understandings and interpretations. Thomas (2007:42) contends that the word pedagogy has become 'over-used and a term for almost any thinking process' and suggests that pedagogy and theory in education are often used indiscriminately, with little attention to their use. Loughran (2006:11) argues that if initial teacher training is 'to do more than simply convey tips and tricks about practice, then thoughtful and sustained examination of teaching must begin and be encouraged to grow' with educational researchers such as Lam & Yan Fung (2001) and Cautreels (2008) contending that to become 'expert' teachers, teaching should be intelligent, critical and reflective, linking both theoretical understanding and practical experience.

Lucas & Claxton (2013:6) have argued that vocational pedagogy is; 'essentially the outcomes of a series of decisions that teachers make when they select teaching and learning methods'. In other words, rather than simply 'what to teach', trainee teachers must reflect on ideas around 'how to teach' and this is how the idea of 'pedagogy' has been approached in this research. Despite a huge body of research arguing for the importance of pedagogy in teacher training, there still appears to be robust evidence to show that trainee teachers typically continue to value practical experience more than opportunities to reflect upon and apply pedagogy, with Korthagen et al. (2001:7) declaring himself; 'more or less shocked to discover that not many teachers were really interested in improving their own practice by considering the pedagogy' at all.

There appear to be several reasons why many trainees may fail to recognise the importance of the pedagogical aspects of their training. The first may be that although there are many different approaches to teaching and learning no single educational theory can claim to have all the answers. As Carr (2006:28) states; 'No educational theory that has claimed to be a framework for practice has ever been successful'. Pedagogy is time-consuming and complicated and in a high-pressure environment where time is short, it may be that trainees simply lose patience and prioritise the end product of simply completing the required number of teaching days rather than reflecting on the process. Loughran (2006) and Hobson et al. (2009) also discuss how the immediate pressures of teaching may impact upon a student's opportunities to reflect on pedagogy in their training arguing that many trainee teachers felt that their immediate priorities were to prepare for their teaching commitments, as the consequences of being poorly prepared could be catastrophic. Tann (1994) argues that at the early stage of learning, trainee teachers' teaching needs are often survival and person-oriented. Taylor (2003) and Cook-Sather & Youens, (2007) argue that practitioners are mainly influenced by the practice of others around them and in their formative training are likely to value the views and opinions of their school-based mentors as they perceive them to be 'on the chalk face'. Blair (2010) and Hobson et al. (2009) encountered a lack of understanding and consequently a devaluing of pedagogy by school mentors and trainees. Pring (2005) and Carr (cited in Mortimore 2000) agree, making the point that much educational theory is regarded as too abstract and lacking relevance to practice.

Development & Delivery of the Three-Lens Model

In the focus university, the seven foundation subjects; art & design, design & technology, history, geography, music, physical education and religious education, were delivered to primary trainee teachers separately but within one foundation subjects module. Subject experts were responsible for the delivery of their own subject but there was no overall consistency within the module. It seemed clear that the module would benefit from some kind of unification but this was balanced with an acknowledgement that too much cohesion would cause these very disparate subjects to lose their 'subject-ness' or 'essence' and that they may become less rich as a result.

The Three-Lens Model was devised to provide a scaffold of delivery for each discipline with the delivery of each subject clearly split into the three areas (Figure 1.).

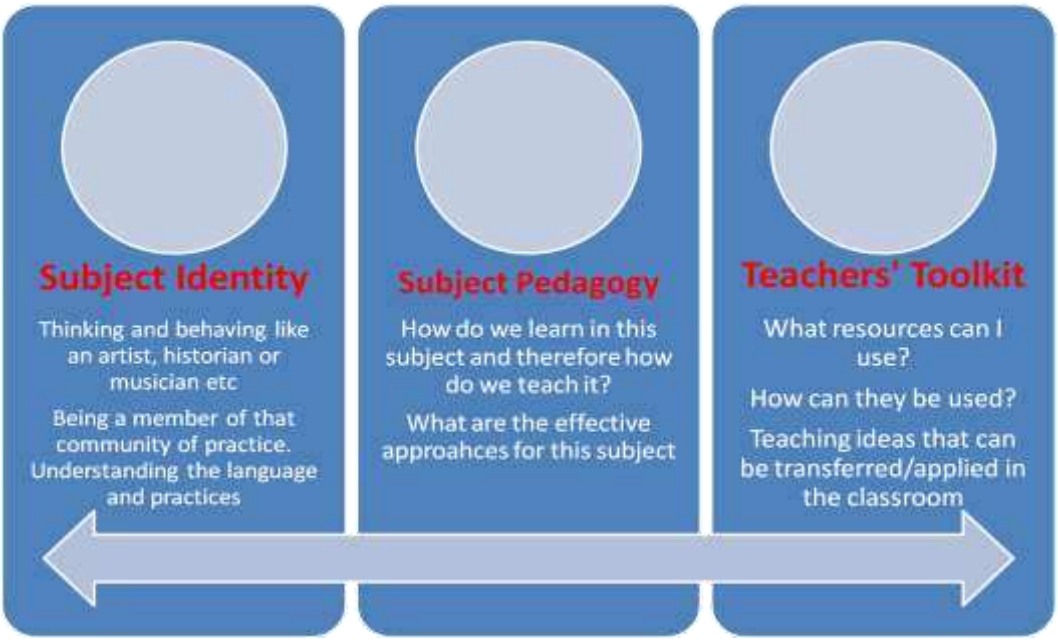

Figure 1. The team's Three-Lens Model.

Each foundation subject had the opportunity to retain its individuality through the subject identity element, whilst achieving a balance of subject pedagogy 'how to teach' and practical ideas 'what to teach'. Different year groups and programmes had different teaching hours attached to them so it was decided that the three aspects would be clearly defined and delivered over the subject as a whole rather than within each session.

The Three-Lens Model, was developed and trialled in all primary foundation subjects modules timetabled for year one and year two full-time undergraduates, year two part-time undergraduates and PGCE trainees in the academic year 2013-2014. The decision to collect data across a range of programmes was important as the demographics across them are quite different. Undergraduate full-time trainees tend to be younger with less experience of primary education. PGCE and part-time trainees are generally older and often have a grounding of primary education in place. Year two trainees were selected as they were able to compare experiences of the Foundation Subjects delivery before and after the introduction of the Three-Lens Model whereas other groups would not.

The Research Project

Methodology & Methods

This research is not about 'grand theory' in isolation from practice but about how one specific group of practitioners collaborated to create and develop a working model that addressed weaknesses in existing provision. The chosen research methodology was grounded in the principles of 'Thematic Analysis'; evaluating collected data in order to find and code repeated patterns of meaning. Braun and Clarke (2006) have argued that Thematic Analysis should be seen as a foundational method for qualitative analysis and describe it as 'poorly branded' (in that it does not appear to exist as a named analysis) yet widely used, as it is a flexible method for identifying, analysing, and reporting patterns (themes) within data.

Pollard's (2008) Evidence-Informed Practice Model (Figure 2.) was felt to be an appropriate theoretical model for this research as it allowed for a cycle of improvement. Within this framework we were able to identify issues in module delivery through trainees' feedback (collect evidence), unpick possible themes within the data (analyse evidence), work out where difficulties may occur (reflect), discuss how to address these difficulties (plan), make appropriate changes to delivery to mitigate these difficulties (make provision) and finally deliver changed provision (act) before checking with trainees whether changes had indeed been effective.

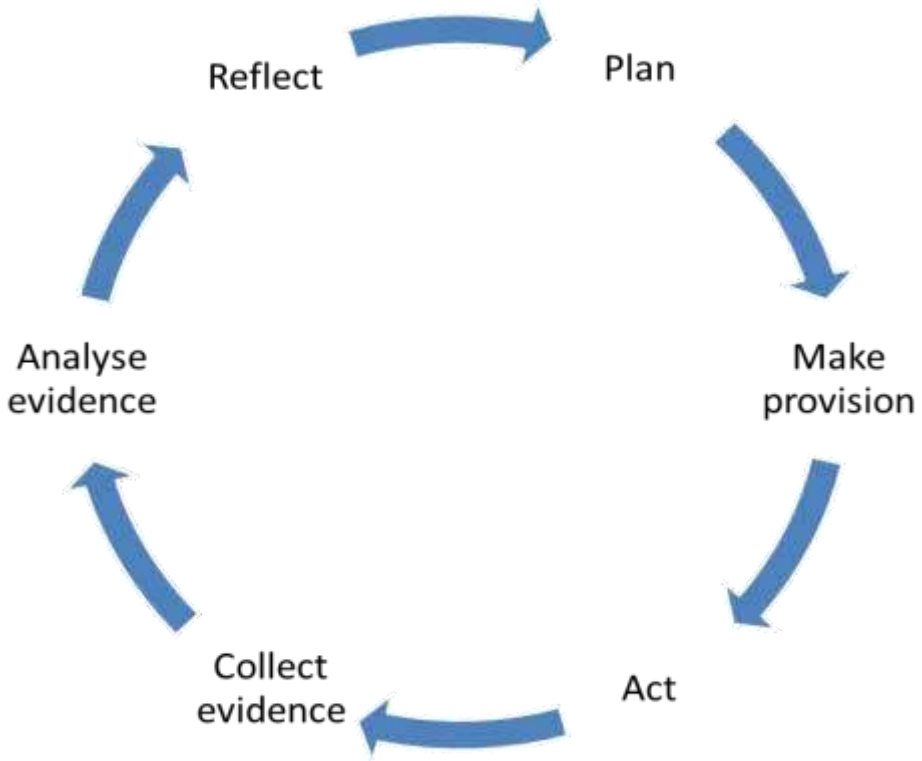

Figure 2. Pollard's (2005) Evidence-Informed Practice Model.

At the beginning of the year, a lecture was delivered to all participating trainees to explain the rationale and aims of the Three-Lens Model. Subject Leaders worked together to adapt planning so that the moderated content was three-part; explicitly reflecting the model. They also referred to the Three-Lens Model throughout the teaching and assignment guidance, making reference to the links between practice and theory throughout.

During the academic year, data was regularly gathered from each programme in the form of informal discussions with students and staff. Formal research took place in the form of end of module questionnaires, small focus groups and semi-structured interviews which aimed to explore the model's effectiveness by investigating whether trainees placed more value on pedagogy after twelve month's exposure. Respondents were told that any results would be anonymised.

Within the research cycle phases of thematic analysis identified by Braun and Clarke (2006) were used to identify themes within the collected data: collection of data, generating codes,

searching reviewing and naming themes. It was intended that data would be collected until saturation point was felt to be reached i.e. the same themes keep coming out. 217 questionnaires were returned with a spread across all programmes and after coding took place it was clear that relevant themes were being repeated and no further questionnaires needed to be distributed. We finally settled on four themes for the overall report as outlined in the findings, analysis and discussion section.

We have been aware during this research of our own potential bias as educators and therefore stakeholders in the importance of the role of the higher education institute in initial teacher training. Whilst acknowledging this position, we have attempted to minimise our own bias by using the data coding system and by triangulating our methods of data collection. It was hoped that in addition to improving the validity of our research, this would also provide opportunities to interrogate relevant data further and in more detail.

Research Findings & Discussion

Theme One: The Perceived Impact of the Three-Lens Model

Findings showed that in general, the notion of the Three-Lens Model seemed to have made some impact on all participants. 100% of year one full-time undergraduate, year two part-time undergraduate and PGCE trainees were able to identify the model and in many cases to successfully explain exactly what it was:

> 'It [the Three-Lens Model] is talking about the specific identity of a subject then combining pedagogy with subject knowledge and ideas for in school'
>
> (PGCE trainee - questionnaire).

However, it was also noted that of the 79 year-two full-time undergraduate participants, 87% were unable to show a clear understanding of the Three-Lens Model:

> 'In class I remember discussing this approach but I have no idea what it is about now'
>
> (Year two full-time undergraduate trainee - questionnaire).

> 'It [the Three-Lens Approach] is good in the majority of foundation subjects but not all teachers follow it; some didn't seem to be clear on what it was'
>
> (Year two full-time undergraduate trainee - questionnaire).

This was a surprising find as it had been assumed that all trainees would have had a similar exposure to the Three-Lens Model in their sessions. However, there could be several explanations for this:

- This cohort differed from the others as rather than completing questionnaires and taking part in focus groups and interviews immediately after the module finished they went out on placement before they did so. This resulted in a time gap during which they may have forgotten about the Three-Lens Model and its impact could potentially have been reduced. This could be significant in terms of the impact that the model may have in the future.

- Due to revalidation, session materials for the year one full-time undergraduate trainees had been re-written with the Three-Lens Model in mind, whereas the existing year two full-time undergraduate module materials had been adapted to the Three-Lens Model. This does not explain why PGCE students and year one part-time trainees did not also have similar issues but may be useful in considering whether existing materials should be rewritten rather than adapted.

- This cohort relied much more heavily on input from part-time temporary lecturers who had not been integral to the design of the model and so may not have bought fully into the delivery. This was borne out by other comments from trainees:

  > 'I think that in some subjects they did make it a very coherent teaching process and in others it wasn't as successful. I don't know whether that was because perhaps tutors weren't as clear on that process?'
  >
  > (PGCE trainee focus group).

  Again this is an interesting idea to bear in mind when distributing teaching materials to part-time staff.

Theme Two: The Perceived Merit of the Three-Lens Approach as a Delivery Method

In many ways it appears that the Three-Lens Model had been almost universally regarded as valuable and successful as a scaffold in the delivery of the foundation subjects. One positive impact seemed to have been in terms of aiding trainees to structure their learning and expectations:

> 'It has given me a framework to research my own subject knowledge. I think it's a good idea and I find it useful to think about pedagogy and subject knowledge separately'
>
> (Year two full-time undergraduate trainee - questionnaire).

> 'I felt that it was important to understand the subject and to have time to think about how best to approach the teaching of it as well as having practical ideas'
>
> (PGCE trainee - interview).

In this way it can be seen that the Three-Lens Model is a useful tool in terms of scaffolding delivery to enable trainee teachers to consider the different aspects of teaching individual subjects. They were able for example to clearly contrast and compare the pedagogy of teaching design and technology with the pedagogy of teaching religious education.

However, there were also a few cases where trainees felt that clear links had not made between the Three-Lens Model and its value to them as trainee-teachers:

> 'I feel we have been taught what the Three-Lens Model is but not how it relates to our teaching'
>
> (Year two part-time undergraduate trainee – focus group).

In these cases although they had an awareness of the Three-Lens Model, it seemed that they were not appreciative of its value to them in terms of their training as they could not relate it to a direct impact on their teaching.

Another idea that emerged was that trainees were able to compare and contrast pedagogies associated with different subjects:

> 'It has helped me recognise how different the subjects are and therefore they need to be taught differently'
>
> (Year one full-time undergraduate trainee - focus group).

There is a concern that although it is practical for the foundation subjects to be grouped within one module, trainee teachers may be tempted to "lump them together" feeling that they share more of an identity than they do. The Three-Lens Approach appears to be successful in that it allows for cohesion within the module whilst still allowing for the teaching of subject specific pedagogies.

Theme Three: The Success of the Three-Lens Model in Raising the Perceived Value of 'How to Teach' (Pedagogy)

Results and findings would appear to demonstrate that there was a much improved picture in terms of how trainees valued the pedagogical elements of their training. However, 60% of participants still regarded the 'what to teach' (toolkit) element of their training as the most valuable, compared with 24% for pedagogy and 16% for subject identity. Although this finding relates to the literature in that trainees continue to value ideas about 'what to teach' rather than 'how to teach' it also suggests that more trainees in comparison to previous module evaluations were able to appreciate the value of pedagogy after being exposed to the Three-Lens Model for twelve months.

Interestingly, again, there appears to be some fluctuation between cohorts. For example; Year two part-time trainees seemed to demonstrate a more even spread with 40% recognising and preferring the toolkit element and 35% preferring pedagogy:

> 'I felt it was important to learn about the pedagogy of the foundation subjects rather than just subject knowledge e.g. how to teach about the Victorians not just about the Victorians'
>
> (Year two part-time undergraduate trainee - questionnaire).

Although PGCE trainee data were largely representative of the overall data with 56% valuing toolkit more and 25% valuing pedagogy more there was much evidence from the data

collected that both of these cohorts appear to feel that pedagogy has substantial value as an element of their learning:

> 'I was inspired by discussions about how to teach – the pedagogy'
>
> (PGCE trainee – focus group).

Despite this, most of the year one and year two full-time undergraduates continued to acknowledge and prefer toolkit over the more pedagogical elements of their training. Often not seeing a value in educational theory at all:

> 'Give us more practical lesson ideas instead of teaching theory which we learn nothing from'
>
> (Year two full-time undergraduate trainee - questionnaire).

When asked; "Is there anything you would like to see more of in the foundation subjects session delivery?" typical answers showed that toolkit in these cohorts continues to be valued over pedagogy:

> 'I would like a handbook with activities / lesson plans and ideas for each foundation subject to refer to'
>
> (Year one full-time undergraduate trainee - questionnaire).

It might be useful here to think about the demographic of the separate cohorts in light of the research done by Tann (1994) and Pring (2005) who have all argued that the ability to see value in theory of education is developmental.

The two cohorts who appear to value the teaching of pedagogy the most are the PGCE and year two part-time undergraduate groups. In general these cohorts tend to be more mature and could be regarded as likely to have more experience of education, with many joining the programmes with an education background. It could then be said that they are likely to be further on in their own conceptual development than the other two groups who tend to be in comparison, often less experienced.

This is borne out well in the following quote:

> 'You do get people saying, right now I just want to get on with the teaching! That's all well and good but you are going to be doing something for the rest of your career. If you don't form the ideas about how you should do it and learn what children need then you are going to be doing it in the wrong way'
>
> (PGCE trainee – focus group).

As with the research of Hobson et al. (2009) and Korthagen et al.(2001), it seems that, in general, trainees were more likely to report that they considered their programmes to be

too theoretical rather than too practical. They often talked of a need, due to time constraints, to prioritise what they perceived to be the most important aspect of their training. This was usually their school placement as they felt that this had an impact on the judgement of their final grade as a teacher but was also instrumental in them gaining employment at the end of their course.

Trainees often talked of a need to 'survive in the classroom'. As Pring (2005) argues; new teachers' needs are often survival-oriented in the high pressure environment of the classroom.:

> 'What we really need is tips on how to teach subjects that we might feel apprehensive about, so the teacher's toolkit was the most important aspect for me because it provided me with ideas and resources which I could use in the classroom'
>
> (Year one full-time undergraduate trainee – questionnaire).

Trainees often continued to demonstrate a lack of understanding of pedagogy and a perception that pedagogy and educational theory would not be as beneficial to trainees in the classroom as practical ideas:

> 'What I've found is that they [trainee teachers] want to know practical approaches and how to do things. I don't know if some people have just had enough of theory? They just want to skip over it?'
>
> (PGCE trainee - interview).

Some trainees when discussing how they valued the pedagogical elements of the course made a case for their delivery during less time-pressured moments, suggesting that there could be merit in restructuring the sessions so that subject identity and pedagogy are taught at the beginning of the module with practical ideas taught just before placement:

> 'I think it's all valuable, it's just that pedagogy and identity could sort of be taught in a better way; get that out the way first when people have got the time to be doing the extra reading'
>
> (PGCE student - interview).

Having spoken to students we can understand how time is pressured, the need to survive by prioritising, the idea of being developmentally ready to take on new theory and ideas. Rather than trying to change mindsets by telling somebody that they should be doing something, we would like to truly understand their perspective.

Through this research we have become more aware of the concept that different demographics of students have different needs. Whilst it appears that part time undergraduate and postgraduate trainees are ready to take on more complex theoretical

ideas about teaching, perhaps it would be beneficial for undergraduates with more limited experience to focus more on toolbox ideas initially, only applying theory later when they have a secure understanding of the way that teaching in a primary school works.

Theme Four: The Success of the Three-Lens Model in Providing Cohesion within the Foundation Subjects Modules

Encouragingly, it appears that for many trainees the content of Foundation Subject modules was definitely regarded as more cohesive after the Three-Lens Model has been embedded:

> 'I like how the subjects all follow the same pattern, it makes it easier to follow'
>
> (Year two part-time undergraduate trainee - questionnaire).

There seems to be a measure of success in structuring the subjects so that individual disciplines have retained their identity, something that the Foundation Subjects Team viewed as essential. Trainees discussed being able to compare and contrast the delivery of each subject and as such get a feeling for and an understanding of the 'subject-ness' or identity:

> 'The Three-Lens Model shows you what to look for – what's the subject about, how do you teach it, what ideas you could use'
>
> (PGCE trainee – questionnaire).

One area where the Three-Lens Model seems to have had a very positive impact is that of module assessment where trainees discussed feeling much more positive about assignment writing:

> 'Now that we have the Three-Lens Model it makes it easier to write about different foundation subjects. Before it was just like…how do these even relate to one another!'
>
> (Year two full-time undergraduate – focus group).

Conclusion

The Three-Lens Model was an attempt to solve two problems faced by a Foundations Subjects Team. The first was how to unify seven separate primary subjects that were delivered within one module whilst allowing them their own identities. In this way it appears that the Three-Lens Model has been able to do what it set out to achieve. Module Leaders report feeling more invested in the primary Foundation team and trainees have talked about a more cohesive module and increased clarity regarding sessions and assignments.

As believers in the importance of developing reflective, thoughtful expert teachers we have always argued for a balance between pedagogy and practice and the second problem that faced us was how to develop an appreciation amongst trainee teachers of the 'how to teach'

aspect of their training rather than just the 'what to teach' aspect; strengthening links between pedagogy and practice in teacher training.

It has been heartening to see that the Three-Lens Model appears to have had some success in this area. However, we also recognise that there is still some way to go in order to make the theoretical element more meaningful and important to the majority of our trainees. The findings of this research have raised some difficult questions namely, when should pedagogical concepts be explicitly taught in initial teacher training. We are also aware that the initial stages of a teacher-training course might not be the right time to teach pedagogy.

As a Foundation Subject Team we continue to feel passionately that theoretical elements are vital to the teaching profession and that you cannot be a great teacher by simply becoming technically good. Hence we would like to build on this initial research to further investigate why pedagogy is not as valued as we would wish it to be and whether we, as teacher educators, need to think about developing a two-stage training delivery where trainees learn how to become competent teachers before building on this to become expert teachers.

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