

The impact of in-service teacher education on language teachers' beliefs

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Abstract

This qualitative longitudinal study examines the impact of an intensive eight-week in-service teacher education programme in the UK on the beliefs of six English language teachers. Drawing on a substantial database of semi-structured interviews, coursework and tutor feedback, the study suggests that the programme had a considerable, if variable, impact on the teachers' beliefs. The course allowed teachers to think more explicitly about, become aware of, and articulate their beliefs, to extend and consolidate beliefs they were initially – and sometimes tacitly – positively disposed to, and to focus on ways of developing classroom practices which reflected their beliefs. Teachers also experienced shifts in prior beliefs they held about aspects of language teaching and learning. Nonetheless, despite this evidence of impact, the data also suggest that the in-service course studied here could have engaged teachers in a more productive and sustained examination of their beliefs. Several factors relevant to such engagement are analyzed and recommendations for enhancing the impact of in-service teacher education on language teachers' beliefs are made. © 2011 Elsevier Ltd. All rights reserved.

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1. Introduction

It is widely recognized that teacher education is more likely to impact on what teachers do if it also impacts on their beliefs (e.g. Feiman-Nemser and Remillard, 1996; Phipps and Borg, 2007; Wideen et al., 1998). There has, however, been surprisingly little research into the extent to which teacher education, particularly in in-service contexts, does actually impact in some way on the beliefs of participating teachers. This paper explores this issue in the context of an in-service course for language teachers.

1.1. Literature review

Beliefs have been defined from a range of psychological and philosophical perspectives (see, for example, Abelson, 1979; Nespor, 1987; Pajares, 1992; Woolfolk Hoy et al., 2006). This work suggests that beliefs are propositions individuals consider to be true and which are often tacit, have a strong evaluative and affective component, provide

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a basis for action, and are resistant to change. In the context of language teacher education, beliefs are seen to be a key element in teacher learning and have become an important focus for research. It has even been suggested that beliefs “may be the clearest measure of a teacher’s professional growth” (Kagan, 1992, p. 85).

1.1.1. *Studies of belief impact in language teacher education*

Most of the research available on the impact of teacher education on language teachers’ beliefs has been conducted in pre-service contexts, and this work has produced mixed findings. Studies such as Borg (2005), Peacock (2001), Urmston (2003) and Pennington and Urmston (1998) report stability in the pre- and post-course beliefs of student teachers. In contrast, Cabaroglu and Roberts (2000), Clarke (2008), MacDonald et al. (2001), Mattheoudakis (2007) and Busch (2010) all provide evidence of change in student teachers’ beliefs during language teacher education. Other studies (Liu and Fisher, 2006; Murray, 2003; Richards et al., 1996) report that belief change was promoted by pre-service language teacher education in variable ways across individuals and areas of belief.

Moving on to the context for this study, the volume of research examining the impact of teacher education on in-service language teachers’ beliefs is limited. Studies which have reported evidence of such impact are Freeman (1993), Scott and Rodgers (1995), and Lamie (2004). For example, Scott and Rodgers (1995) compared teachers’ conceptions of writing using a pre- and post-course survey and found that initially 58.5% of the beliefs expressed were aligned with the principles and practices promoted on the course, compared to 89% afterwards. This was interpreted as evidence of positive impact. In contrast, Lamb (1995) and Phipps (2007, 2010) report less positive conclusions in their analyses of the impact of in-service teacher education on language teachers’ beliefs. For example, Phipps (2007) used qualitative measures to examine the impact of four months of an 18-month course on the beliefs about grammar teaching of a teacher of English in Turkey. While acknowledging the overall positive impact of the programme, he concluded that, during the period of the study, “there were few tangible changes to existing beliefs. Instead many existing beliefs were confirmed, deepened and strengthened” (p. 13).¹

Clearly, variations in the nature of the language teacher education programmes examined and in the research approaches adopted in different studies will account, at least partly, for the inconsistent conclusions emerging here. What is evident, though, is that our understandings of the impact of language teacher education on practising teachers’ beliefs remain incipient and the issue merits much additional empirical attention. In response to this gap, the key research question that is addressed here is: To what extent did an in-service language teacher education programme impact on participants’ beliefs about language teaching and learning? Given the concern here with impact rather than with any particular substantive area (e.g. beliefs about grammar teaching), the range of beliefs to be studied was not limited in any a priori manner.

2. Materials and methods

2.1. *Context and participants*

The context for the study was a full-time Delta (Diploma in English language teaching to adults) taught over eight weeks at a training centre in the UK. The Delta is an internationally recognized advanced course for practising teachers and consists of three modules. Of particular relevance here is Module 2 – Developing Professional Practice – which has as one of its aims to “develop candidates’ beliefs about teaching”.² On the full-time Delta, candidates receive 120 contact hours and teach 10 lessons to adults (half of these are observed and assessed). Candidates are expected to spend around 300 h on reading, research and assignment writing (e.g. preparing detailed lesson plans, writing lesson evaluations, developing a reflective professional development portfolio, writing background essays). Significantly revised in 2008, the Delta seeks to reflect contemporary views of good practice in language teacher education (see Zeronis, 2007 for a discussion of the development and design of the course).

Six Delta candidates agreed to take part in this study (of a total of 12 who were registered on the course when volunteers were sought via a preliminary questionnaire). All six were female, British and worked in private language

¹ Kubanyiova (2006) and Richards et al. (2001) also comment on relationships between in-service teacher education and teachers’ beliefs, without, however, providing specific analyses of these relationships.

² See <http://www.cambridgeesol.org/exams/teaching-awards/delta.html> for full details of the course.

teaching organizations. Table 1 summarizes the more variable characteristics of the sample (referred to throughout here as T1–T6). The researcher was not associated in any way with the institution running the course.

2.2. Data collection and analysis

The data reported here come from a larger study examining the various types of impact that in-service teacher education has. The study was qualitative and longitudinal. The teachers first completed a preliminary questionnaire which asked about their background, reasons for joining the course, and what they hoped to learn. Six audio recorded semi-structured interviews (see [Kvale and Brinkmann, 2008](#) for a discussion of qualitative interviews) each lasting on average 40 min and distributed across the course were then conducted with each teacher. The first two interviews were conducted face to face at the training centre while the remaining four interviews were conducted by telephone. Another source of data was the substantial volume of Delta coursework teachers completed (e.g. lesson plans, essays, reflective writing) and the written feedback tutors provided on this work. Table 2 summarizes the chronology of interviews and assignments in the study.

Data were analyzed qualitatively (see, for example, [Newby, 2010, pp. 459–460](#) for a discussion of the process of qualitative data analysis). There were two levels of analysis – cyclical and summative. Cyclical analysis took place throughout the study and alternated with each phase of data collection. Thus, the first interview schedule was based on an analysis of teachers' responses to the preliminary questionnaires, while all subsequent interview schedules were informed by an analysis of the previous interview and the most recent coursework and tutor feedback. Thus, for example, in preparing Interview 3, I reviewed the transcript of interview 2 for evidence relevant to an understanding of teachers' beliefs (e.g. statements in which beliefs were articulated or reflective comments about beliefs). T2, for instance, said in Interview 2 that her beliefs had not been challenged in Weeks 1–2 of the course, so this issue became part of the schedule for Interview 3. Prior to Interview 3 I also reviewed all coursework and tutor feedback that had become available since the last interview and similarly analyzed these sources for evidence of teachers' beliefs or teachers' reflections on their beliefs. To take another example from T2, in her Reflection and Action Stage 2 assignment she wrote that "planning should be from the aims backwards, i.e. student and aims focused". This assertion then became one of the issues discussed in Interview 3. Appendix 1 is an example of the outcome of these cyclical analytical processes, with questions and issues in interview schedules very often linked directly to evidence from earlier phases of data collection. There was thus a very strong interplay between data collection and analysis throughout the study, supporting [Richards' \(2003, p. 268\)](#) claim that in qualitative research analysis is "neither a distinct stage nor a discrete process". The process followed here also meant that each interview was highly responsive and personalized. In addition to extracting interview themes from the data, there were a number of core issues that I explored in the interviews throughout the study; for the purposes of this paper two themes of relevance were the extent to which the teachers felt the course (a) enabled them to examine their beliefs and (b) had impacted on their beliefs in some way.

Analysis was also summative, both for each teacher and for the whole group. That is, on completion of the fieldwork the on-going analyses for each teacher were reviewed chronologically for recurrent themes or patterns relevant to an understanding of the impact of the course on the teacher's beliefs. A list of themes evident in each case was drawn up and a cross-case comparison of these was facilitated through the use of a grid in which themes were listed and cross-referenced to each individual case, using a ✓ or × to indicate whether a theme was present or absent; displaying the data in this manner highlighted those themes which recurred across teachers and those which were isolated instances. For example, this analysis showed that in five of the six cases the teachers noted at some point during the study that they felt their initial beliefs had remained intact during the course.

Table 1
Participant profiles.

Teachers	Years in ELT	Qualifications	Current position
T1	4	BA, CELTA	Director of Studies (DOS)
T2	10	BA, CELTA	Senior Teacher
T3	5	BA, Cert. TESOL	Teacher
T4	2	BA, CELTA	DOS
T5	4	BA, PGCE, CELTA	Assistant DOS/Teacher
T6	7	BA, PGCE, CELTA	Senior Teacher

Table 2
Chronology of data collection.

Course weeks	Data collection
25.08.09	Pre-course questionnaires
Wk1 28.09.09	Start of course Interview 1
Wk2 05.10.09	Diagnostic assignment Reflection and action stage 2 Interview 2
Wk3 12.10.09	Language & skills assignment 1
Wk4 19.10.09	Language & skills assignment 2
Wk5 26.10.09	Interview 3 Reflection and action stage 3 Experimental practice assignment
Wk6 02.11.09	Language & skills assignment 3
Wk7 09.11.09	Interview 4 Reflection and action stage 4
Wk8 16.11.09	Language & skills assignment 4 End of course Interview 5
02.12.09	Module 1 exam
07.12.09	Extended assignment deadline
21.01.10	Interview 6

Other features of the analysis which characterized this work were extensive reference to contextualized extracts of primary data to support claims (e.g. quotations from the teachers and their work), and respondent validation (but see Silverman, 2001 for a critical perspective on asking participants to verify researchers' interpretations). Collectively, the rigorous analytical procedures outlined here enhance the trustworthiness of the findings presented below.

In terms of key ethical concerns in educational research (see, for example, Denscombe, 2002), voluntary informed consent was obtained from all participants, they had the right to withdraw from the study at any time, and their anonymity was protected together with the confidentiality of the data.

3. Findings

I will now present findings relevant to the impact of the Delta on the beliefs of the six teachers. It is important to stress that I am not seeking to characterize the Delta course generally – the insights provided here are based on the study of one particular implementation of the course and of the experience of six (successful) teachers on it. The issues highlighted, though, are, I would argue, of broad relevance to language teacher educators.

3.1. Teacher 1

In the first reflective assignment on the course teachers were encouraged to write about their beliefs. T1 found this challenging:

I think prior to doing the course, I hadn't really reflected a lot on what my beliefs were ... I found that quite hard, because I felt like I was supposed to say some special word or use some terminology, and say, oh, 'I believe in this theory' ... it wasn't immediately obvious to me what my beliefs were (TI:I2³).

At the end of the course, though, she declared that "the course teaches you to actually know what you believe about teaching" (TI:I5) and felt that this new-found awareness was one of the most positive outcomes of the course for her:

³ Data cited in this paper carry the following codes: T1, T2, etc. = individual teachers; I1, I2, etc = first, second, etc. interview; FB = tutor feedback; R&A2–4 = reflective assignments; CSFB = teacher feedback on their narratives; PCT = pre-course task. Ellipsis (...) in transcripts indicates that (because of space and relevance) text has been omitted.

I think it all comes down to understanding what you believe, and it sounds really stupid, like you don't know what you believe, but yeah I think when you do your first lot of training and then you're out in schools teaching for the first few years and you don't really pick up theory books very often, you don't really understand the principles and the reasons behind half the things you're doing ... I wanted to find out the methodology that was behind everything that I was doing ... And for that reason alone it's been brilliant (T1:I5).

Particularly fundamental to T1's understanding of her beliefs, as indicated above, was acquiring the theoretical knowledge which provided her with a rationale for her practices. Without this knowledge, she felt she had practices but no explanation for them:

you can have all these things like, 'oh I hate using the course book or, oh I never do this part of the course book because I think it's rubbish' or whatever, and you don't really realise when you're pre-Delta that that's a belief that you have about it. You just think, 'oh that's just what I do, you know?' ... And it's quite embarrassing when you first start because you think, 'I've no idea, I don't know why I've been doing that. I've just been told to do that' and so, yeah, it's quite nice to be able to get to the end of the course and go, 'I get why I do that now. I understand why that makes sense' (T1:I5).

T1 gave such a prominent role to theory in talking about her beliefs on the course that there was a sense in which external theory filled the gaps in her understanding and *became* the beliefs she felt she lacked an awareness of. In contrast, for example, internal sources of insight such as her educational biography played no role in the examination of her beliefs. In an interview, though, she suggested that her early teaching experience with young learners in China had "patterned me to do things in a certain way, when I just transferred it to adults" (T1:I5). Exploring this experience would have contributed to a deeper understanding of her beliefs and practices. I return to this point in the practical recommendations at the end of the paper.

3.2. *Teacher 2*

In an early reflective assignment T2 wrote that "I believe students learn best when they are motivated. Instrumental motivation ... is key but I also feel that it is the language teacher's job to foster affective factors" (T2:R&A2). At the end of course, she did not feel these initial beliefs had been reshaped:

I don't know that my beliefs have necessarily changed. I'm a lot more aware of theories, of terminology, of what I'm doing, but I still believe that motivation is important, that having a good rapport with your students is important, none of that's changed ... When we looked at what we believed at the beginning [of the course], we were all quite superficial and we never really delved into it and I think all that's happened is that the things we do in the classroom, have now just got more theory behind it ... so really it's your practice, not necessarily your beliefs that's changed (T2:I5).

Deeper knowledge of language teaching theory had thus shaped developments in her practice, without, however, implying any significant change in her basic beliefs. One explanation she offered for this was that her existing practices and those promoted on the course were reasonably well-aligned; in her words, "there's been nothing that I've thought oh, I did that, you know, black and they're saying that you've got to do it white, there's nothing like that" (T2:I2). Another explanation, noted above, was that apart from a brief 'superficial' discussion of beliefs at the start of the Delta there was no deep or sustained examination of the issue on the course. The intensity of the course also hindered, she felt, the detailed examination of beliefs:

I had lots of quite strong beliefs about rapport building, motivation and student-centred learning but which perhaps I didn't know how to put into words and that we never really had a chance to examine these beliefs on the course — it was too intense to have much time to stop and think (T2:CSFB).

Despite feeling her beliefs had remained stable, if somewhat tacit, T2 did acknowledge that some development in her beliefs occurred. Around the mid-point of the course she compared this development to the growth of a seed (which in this case referred to her entry beliefs):

I don't think it's so much that they're [my beliefs] being challenged, I think they're just being added to ... my reading's adding to it and my teaching practice is adding to it and watching my peers is adding to it and, so

they're just growing I think, that would be a better way of describing it ... perhaps it was all probably there but maybe just the seed and now it's, now they're growing (T2:I3).

Belief development in T2's case, then, was one of growth — i.e. consolidation and extension of issues she was positively disposed to but which she had not necessarily previously explored in depth. This process was supported by reading, teaching and observing peers; one mechanism on the Delta for exploring beliefs which she did not benefit much from, though, was reflective writing, which she described as “a complete waste of time and effort” (T2:I5). In responding to her written reflections, tutors did encourage her to reflect more deeply, as in this example focusing on her difficulties in teaching pronunciation:

It sounds like an area ... that is not part of your normal classroom routine/ritual. By investigating why this is the case (perhaps by critically examining some of your experiences as a language learner and/or your beliefs in this area) you may be better placed to assign an appropriate action to take in your action plan (T2:R&A3 FB).

There was, though, little evidence of such engagement with beliefs (or with her educational history) in T2's self-evaluations and reflections on the course.

3.3. *Teacher 3*

T3 felt that before the course she was not even sure that she had beliefs about language teaching: “I don't really know what I would have defined my beliefs as being before I came, I don't know if I would have said I had beliefs about ELT ... I'd never consciously considered them” (T3:I2). The course was thus the first time she had been encouraged to articulate her beliefs and in an early piece of reflective writing she noted that

My own experiences as a language learner ... have led me to believe that stimulating intrinsic motivation is vital in producing long term linguistic development in a learner ... I also believe that appropriate error correction and feedback are essential to retaining learner motivation (T3:R&A2).

The Delta thus gave T3 opportunities to become aware that she actually had beliefs and to articulate what these were. Thus she spoke of progressing from “maybe not even really thinking about them [i.e. beliefs] to having them” (T3:I2). Through this process she did not find that her beliefs were being challenged in any significant way. One explanation for this lack of challenge was that she felt that the beliefs she became aware of on the course were well-aligned with the ideas it promoted; for example, T3 believed in the need for lessons “to be focused on what they (i.e. learners) can take away” (T3:I3), a key principle emphasized on the Delta.

Like T2, T3 was not positive about written reflections, noting that “I maybe don't find them the most useful way of evaluation” (T3:I3) and adding later that “the principle behind it's good, but the actual writing of it is maybe not very necessary” (T3:I5). Thus it was not surprising that tutor feedback on her reflections encouraged her to explore her beliefs in more detail. For example, with respect to recurring problems with teacher talking time and clarity of instructions, a tutor wrote: “Is the problem approach/technique or perhaps even a reflection of a deep seated belief about learning/teaching?” (T3:R&A3 FB).

Nonetheless, at the end of the course, T3 felt she was better able to articulate her beliefs and that she was more aware of them:

Yeah definitely, I can use long words and things, it's very exciting, yeah I wouldn't have been as articulate on my beliefs at all at the beginning ... But yeah, I definitely, I know what I believe and why I believe it (T3:I5).

3.4. *Teacher 4*

T4 entered the course with strong beliefs about the importance of learner-centredness, and early in the course did not feel these beliefs were being challenged in any way. “I didn't really have any way out beliefs that aren't ok” (T4:I2) was how she felt in the first two weeks; she was also finding that many of her existing beliefs reflected ideas being promoted on the course:

I think that we have been very much encouraged to look at meaning ... and making language memorable ... those are things that I believed in but I wasn't necessarily practising ... Putting it into practice and applying what I believe in is my challenge (T4:I2).

Thus it was the enactment of her beliefs in practice which she saw as a key challenge for her.

Towards the mid-point of the Delta, she reiterated the view that “I think my beliefs are still the same, to be honest. I don’t think that I’ve changed my beliefs” (T4:I3). She did not feel this lack of change was in any way negative:

I think there’s been plenty of opportunity for reflection and opportunity for the beliefs to change and I’m open to it, but my main core beliefs haven’t changed, but what has changed is the way that I’m able to implement them because it was ironic that the very first R&A [reflective assignment] it was, ‘I believe in student centredness’, I believe in it and I do believe in it, but I just haven’t been able to do it (T4:I4).

There was, evidence, though, of ways in which the course was impacting on her beliefs. For example, in her pre-course task T4 described herself as “a very confident and competent English teacher” (T4:PCT), but she was forced to review this assessment when feedback on her second teaching assignment indicated that although she was seen to be effective at creating opportunities for interaction in her lessons, too much of this interaction still centred on her. Her reaction was:

That’s interesting, that was how I felt before, and now I’ve revisited how I feel and I guess my confidence has been knocked a little bit, by knowing how it could be better and what I was doing was not the best way that it could be (T4:I3).

In this case then, she was reassessing her self-efficacy beliefs. There was also evidence of revisions in her beliefs about the relationship between eliciting and learner-centredness:

I always thought from CELTA that if you elicit and you’re asking the students for the answers, that’s a good thing, but really that can actually be quite teacher-centred. If you’re the one standing there asking everything all the time and just getting one word answers from them, it’s not really very student centred at all ... I guess that is a change in belief isn’t it? (T4:I4).

Overall, therefore, in this case there was perhaps a tension between the degree of belief change recognized by the teacher and that which actually occurred.

3.5. *Teacher 5*

For T5, articulating her beliefs was a novel experience and her initial attempts to do so were largely descriptions of practice, a point noted in tutor feedback on her early reflective writing:

You outline your practices but your beliefs are not always explicitly stated. Understanding your beliefs and connecting these to wider theory will put you in a better position to reflect on your practice (T5:R&A2 FB).

This remained an issue for T5 throughout the course. In terms of her teaching, though, a key developmental theme in T5’s work was the need for her to create more opportunities for student-centred work and by the end of the second week she already felt her beliefs in these areas were developing:

I feel now maybe I was helping the students too much and ... I suppose I was thinking in terms of my responsibility to teach them I suppose rather than in terms of helping, enabling their learning ... I think I’m too teacher-centred and I’m learning how that may be holding them back in some ways (T5:I2).

Supported by tutor feedback on her teaching, she continued to review her beliefs about her role: “I think before I used to feel that I needed to tell them things all the time. That my job was to tell them things but now I realise that actually they can, you can get a lot from them”. (T5:I3).

Two-thirds into the course she felt that “a lot of my practices have changed. But I think my beliefs are still, haven’t been challenged, my fundamental beliefs haven’t been challenged” (T5:I4). This seemed at odds with some of the very clear shifts she had made in the way she conceived of her work, though she explained that her comments referred specifically to core beliefs she held at the start of the course “about the importance of fostering friendly atmospheres in the classroom. And presenting things in a realistic context ... everything that we’ve learned has only confirmed that” (T5:I4).

At the same time, her reflective writing continued to be characterized by limited reference to her beliefs, a point recurrently noted in tutor feedback. I ask her whether there was any particular reason why she did not examine her beliefs more closely:

Well it's interesting you say that actually because on the last day of the course ... we were actually speaking about this ... on the first day we were asked to write our beliefs, we had to write these on these big pieces of paper on the wall, and I think more or less all of us, instead of write what we thought of as being our beliefs [what we wrote] was actually our practices. But I think we all found it quite difficult to distinguish, most of us said, perhaps we didn't really have such strong beliefs about teaching, we have things that we do and we think things ... but we hadn't really given much thought about the beliefs that underlie that. ... we'd all put things like ... for our beliefs, things like 'I always write down vocabulary on the board' and things like that, which isn't actually, there might be a belief behind that but it isn't a belief in itself ... It's a practice ... I think that only really twigged for us right at the end (T5:I5).

It was only late in the Delta that the distinction between beliefs and practices became clear for T5, and thus it is hardly surprising that explicit discussions of her beliefs were absent from the reflective documents she wrote throughout course.

At the end of the course, though, T5 was positive and articulate about its impact on her beliefs:

I think it's actually made me realise what my beliefs are ... I still probably have the same beliefs in the importance of affective factors and creating an environment where students can work together and help each other ... I'm also believing more and more now in the importance of getting students to process things for themselves rather than just being told ... I think probably to do with my role as a teacher ... I felt it was my job I think before to just give them the knowledge, whereas now I think I see my role differently. To help them to discover for themselves more (T5:I5).

3.6. Teacher 6

T6 was able to articulate her beliefs in detail early in the course:

I strongly believe that there are many affective factors which assist learners in acquiring language successfully. These factors include learner comfort and freedom to experiment in the classroom, confidence in the teacher ... It is important that topics are used which students can relate to and can be personalised ... I am a great believer in student interaction and learner autonomy (T6:R&A2).

She did not feel, though, that in the first part of the course that there was sufficient discussion in class about beliefs:

We haven't so much been asked about our beliefs very much, although in our reflection and action [i.e. reflective writing] we do talk about what's important to us and our teaching beliefs ... but not so much in an open discussion (T6:I2).

Feedback on her teaching, in contrast, was helping her review her beliefs, for example in relation to when in the lesson to give students production activities:

before this course, I always thought, 'oh it [production] comes at the end' ... but actually what I've realised is that that turns on its head and the language analysis can come after and that gives them a chance to improvise and try it out first ... and I think I've realised that that works much better ... the shape of my lesson has completely changed because of that (T6:I4).

Half way through the course she was still waiting for opportunities to talk about beliefs during the training sessions:

there's not really been any opportunity to, it's not as getting to the nitty gritty as I thought it would be ... You don't really get a chance to throw an idea out and have it challenged as it were. So yeah, that's something that hasn't happened as yet (T6:I3).

She was aware, though, of how her views were being shaped by teaching practice and the feedback she received on it. In particular, she had developed strong beliefs about

utilising the students' knowledge, existing knowledge, a bit more as a base, and as a foundation of a lesson, rather than going in and teaching I think. I think that's the thing that's standing out at the moment (T6:I3).

At the end of the course, T6's view on the extent to which it had impacted on her beliefs was

my belief has been reassured. I think ... it hasn't had a huge impact on me, that side, I think ... because I don't actually feel that that was a huge part of the course ... very early on I thought it would be. I thought it would be quite gritty. I thought it would be quite discursive when it came to different people's beliefs ... But it wasn't particularly (T6:I5).

4. Discussion

Judgements about the impact of teacher education depend on how 'impact' is operationalized. If impact implies a deep and radical reversal in beliefs, then we would conclude that the Delta did not have a significant impact on the beliefs of the six teachers. However, if we interpret impact more broadly to encompass a range of developmental processes then the impact of the Delta on the teachers' beliefs, though variable, was considerable. T1, T3, and T5 all progressed from an initial stage of limited awareness of their beliefs to feeling quite strongly that they were aware of and could articulate key beliefs underpinning their work. In the other three cases, evidence of impact was less compelling (and less recognized by the teachers) but nonetheless evident; T6 felt her beliefs were largely reassured but acknowledged a new belief in the value of basing lessons on students' existing knowledge and a change in her belief about when 'production' activities should occur in lessons; T4 acknowledged changes in her beliefs about her own ability as a teacher and in her understandings of the extent to which elicitation by the teacher was a student-centred practice; and T2, who was the teacher who least of all recognized any impact of the Delta on her beliefs, did admit to an improved ability to articulate her views.

Overall, then, the results of this study add to existing evidence about the potential for teacher education to impact on the beliefs of in-service language teachers (see Section 1.1), although direct comparisons across studies are problematic given the diverse contexts studied and the research methods used. Phipps' (2007, 2010) focus on a part-time Delta makes his work very relevant to this study and his finding that teachers became more aware of and strengthened their beliefs rather than changing them has parallels here. There is also evidence here which resonates with the findings of Cabaroglu and Roberts (2000) regarding the different ways in which change in beliefs can be conceptualized. Thus, as we have seen, through teacher education teachers' beliefs can be strengthened and extended; they can be made more apparent to teachers and assume a form that can be verbalized; teachers can learn how to put their beliefs into practice and also develop links between their beliefs and theory. Teacher education can of course also be the source of new beliefs for teachers. There was evidence of all these forms of impact in this study, and it was clear that the Delta provided a range of opportunities – particularly through teaching practice, tutor feedback on teaching and coursework, reading, and reflective writing – that contributed in variable ways in impacting on teachers' beliefs.

At the same time it must be acknowledged that at various points in the study several of the teachers claimed that they did not feel that the Delta was impacting significantly on their beliefs. In some cases these views persisted till the end of the course. Several factors may have led teachers to feel that their beliefs were not being engaged; one may be that they equated impact with radical change, and in that sense, as already noted, there was limited evidence of impact here. Another reason was that they perceived an alignment between their current beliefs and practices and those being promoted on the course. Borg (2005) highlighted such alignment as a reason why a student teacher did not experience significant changes in her beliefs during an intensive four-week teacher education programme. Some teachers also felt that while the course allowed them to think about their beliefs, it did not force teachers to confront and challenge them. For example, there were limited opportunities for teachers to talk to each other about their beliefs. Additionally, some teachers rejected the use of reflective writing and this too may have shaped their views about the overall impact the course had on their beliefs (for other perspectives on the challenges of promoting productive teacher reflections, including in assessed contexts, see A'Dhahab, 2009; Gunn, 2010; Hobbs, 2007).

5. Conclusion

The Delta course studied here was positively oriented to the examination of teachers' beliefs and there was clear evidence that the course had considerable, if variable, impact on the beliefs of the teachers studied. At the same time, however, there was also potential for the teachers to be engaged in a more sustained and productive examination of their beliefs, and to conclude this paper I list eight recommendations for how this might be

achieved. I am not suggesting that these features were wholly absent from the Delta studied, nor that they are typically absent from Delta courses generally; based on the data presented here, though, I do feel that greater attention to these issues can increase the likelihood that in-service teacher education will impact on language teachers' beliefs:

1. Acknowledge that examining their beliefs may be a novel experience for teachers and provide appropriate support as necessary.
2. Assist teachers in clarifying their understandings of what beliefs are (i.e. how they are distinct from practices and from theoretical knowledge).
3. Ensure that teachers understand why they are being encouraged to examine their beliefs.
4. Make reflection on beliefs a central social teacher learning process by providing communal opportunities — e.g. in-class discussions — for teachers to talk about their beliefs.
5. Supplement feedback advising teachers that they need to examine their beliefs in greater depth with concrete examples of how this can be achieved.
6. Encourage 'Biographically responsive' (Reeves, 2009, p. 121) reflective practices through which teachers can understand the formative influence of past educational and professional experiences on their current beliefs.
7. Assess teachers' attitudes to reflective writing and consider if necessary whether alternative mechanisms (e.g. graphical, oral, photographic) for articulating reflections can be made available for teachers to select from.
8. Provide teachers not only with opportunities to make their beliefs explicit but also with space to question and doubt those beliefs and "powerful alternative conceptions" (Woolfolk Hoy et al., 2006, p. 728) to consider.

While also valuable in pre-service contexts, such considerations are particularly important in in-service contexts, where teachers typically bring to the course previous training, substantial classroom experience, and deep-rooted beliefs about many aspects of their work.

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Appendix 1. Interview schedule extract

Teacher 2 – Interview 3

1. Areas for development in your Reflection and Action Stage 2:
 - language presentation via inductive guided discovery (Personal aims & R&E, DA)
 - responding naturally to students' comments and needs (aims for LSA1 & LSA2)
 - tighter planning and realistic timings (R&A2, LSA2)
 - pronunciation
 - clarification stage still needs work (LSA1 R&E)

How are you getting on with these?

2. Reading
 - Interview 2 — you were surprised by your interest in theoretical issues — still the case?
 - How's the 'backbone' coming along? [The teacher used the 'backbone' metaphor in an earlier interview to refer to her learning.]
 - Have you continued to read in the past two weeks?
 - What kind of material are you reading?
 - What are you learning from your reading?
 - What use are you putting the reading to?
 - How does reading influence your understanding of your teaching?
3. Beliefs

- Interview 2 – beliefs not strongly challenged in Weeks 1–2.
- Have you been required to focus much on your beliefs in the past two weeks?
- Are you aware of any beliefs you hold now about effective ways of teaching and learning English that you did not have before the course?

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