"Belief-changing" Teacher Education: Mexican English Teachers' Experiences[1]

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Abstract

The aim of this study was to examine the characteristics of teacher education that were more likely, or less likely, to influence teachers' beliefs. The participants were five university English teachers in Mexico, and the study adopted a qualitative "life history" approach in order to elicit a wide range of experiences from each participant. The methods included a series of extended interviews and a timeline task. Five characteristics of teacher education that had an influence on teachers' beliefs were identified: length of course, opportunities for real practice, opportunities for constructivist teacher learning, opportunities for immersion in new practices, and opportunities for contextually appropriate reflection. Conversely, teacher education courses that did not influence teachers' beliefs were overly short in duration, focused on theory and transmission of knowledge, lacked modelling of desired approaches, and were disconnected from real contexts. The findings of the study may inform the planning of future teacher education courses that aims to have an impact on teachers' beliefs as well as on their practices.

Resumen

El objetivo de este estudio fue examinar las características de la formación del profesorado que tenían más o menos probabilidades de influir en las creencias de los docentes. Los participantes eran cinco profesores universitarios de inglés en México, y el estudio adoptó un enfoque cualitativo de "historias de vida" para obtener una amplia gama de experiencias de cada participante. Los métodos incluyeron una serie de entrevistas extendidas y una tarea cronológica. Se identificaron cinco características de la formación docente que influyeron en las creencias de los docentes: duración del curso, oportunidades de práctica real, oportunidades de aprendizaje constructivista de los maestros, oportunidades para sumergirse en nuevas prácticas y oportunidades para la reflexión contextualizada. Por el contrario, los cursos de formación docente que no influyeron en las creencias de los docentes fueron demasiado cortos, se centraron en la teoría y la transmisión del conocimiento, no ofrecieron modelos de los enfoques deseados y estaban desconectados de los contextos reales. Los resultados del estudio pueden informar la planificación de futuros cursos de formación docente que tienen como objetivo tener un impacto en las creencias de los maestros, así como en sus prácticas.

Introduction

In recent years in Mexico, as in many countries, there has been a considerable push to improve English language proficiency. However, results have often fallen short of expectations (Davies, 2009; Ramírez-Romero & Vargas-Gil, 2019; Sayer, 2015). A key part of the drive towards achieving better results has been to promote new teaching approaches, and arguably the most important of these has been the movement from "teacher-centred" to more "student-centred" approaches to language learning (Bremner, 2015). This has involved a transition from largely passive, theoretical, grammar-based methods to more active, meaningful, skills-based learning (de Segovia & Hardison, 2009; Griffith & Lim, 2010; Jacobs & Farrell, 2001). In Mexico, student-centred approaches have been introduced, under different names and guises, from the earliest years of basic education (Ramírez-Romero & Sayer, 2016) right up to higher education (Bremner, 2017).

However, as in many other countries, the desired shift towards student-centred language learning has not been particularly successful, with many classrooms remaining largely teacher-centred (Pamplón Irigoyen & Ramírez Romero, 2013; Sayer, 2015). There are many reasons for this, but a key factor is that such a change in practice requires a significant transformation in many teachers' fundamental beliefs about education. Indeed, authors such as Fullan (2016) have argued that pedagogical change requires not only a change in teachers' practices, but also in their beliefs, and has stressed the need for educational policymakers to do more to support the process of changing teachers' beliefs over time.

One of the key ways to create the conditions for teachers to change their beliefs is through teacher education. In this article, teacher education is understood in extremely broad terms (see, for example, the wide range of case studies found in Wright & Beaumont, 2015), encompassing pre- and in-service courses, academic and non-academic courses, and courses of varying lengths (from short workshops lasting one to two days, to longer courses lasting several weeks or months, up to university courses that

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might last a year or more). In all types of teacher education, a key commonality is a focus on teachers' *learning* (O'Neill, 1986), with the aim of making meaningful changes in both teachers' beliefs as well as their practices (Geijsel & Meijers, 2005).

This study examined the educational life histories of five English teachers at a Mexican university, with a specific focus on their experiences of teacher education. The common theme uniting these five teachers' stories was that they had all experienced a change from largely teacher-centred beliefs and practices to considerably more student-centred beliefs and practices. Over the course of their professional lives, the teachers reported a wide range of experiences of teacher education, which had varying influences on their beliefs and practices. By identifying the characteristics of teacher education that were either more likely or less likely to influence teachers' beliefs, this study may inform the planning and implementation of future teacher education in Mexico and elsewhere.

Literature review

The role of beliefs in teacher education

The role of teachers' beliefs in teacher education has been the subject of increased attention in recent decades (Brinkmann, 2019; Cross & Hong, 2011; Pajares, 1992). Whereas traditional approaches have tended to focus on what teachers need to *know* and *do*, more modern approaches have emphasised the importance of teachers' inner lives; in other words, *the thinking behind the doing* (Cochran-Smith et al, 2008; Darling-Hammond, 2006). A key aspect of teachers' inner lives is their beliefs, and the correspondence—or lack of it—between beliefs and practices. Although the relationships between beliefs and practices are often extremely complex (Baştürkmen, 2012; Phipps & Borg, 2009; Wilcox-Herzog, 2002), it is generally agreed that teacher education is more likely to influence teachers' practices if it is also able to influence their beliefs (Borg, 2011; Fullan, 2016; Geijsel & Meijers, 2005).

However, changing people's beliefs is not a simple and straightforward process, and many teachers resist changing their beliefs. Indeed, educational reforms that encourage teachers to adopt new teaching practices essentially ask teachers to modify their fundamental sense of self, which can be a difficult emotional process (Saunders, 2013; Zembylas, 2010). This is because beliefs often provide people with much-needed stability and security, which are vital to maintain their sense of professional self (Blackler & Shimmin, 1984; Kelchtermans et al, 2009). Given the importance of teachers' beliefs, it has been suggested that teacher education must do more to support teachers as they experience the process of changing their beliefs over time (Fullan, 2016). The following section examines the main characteristics of teacher education that were considered more effective or less effective at providing the conditions for teachers to change their beliefs.

Characteristics of "belief-changing" (and "non-belief changing") teacher education

Length of course

An issue which often emerges in the literature is that short courses, for example those lasting only one or two days, are often not long enough for meaningful changes in teachers' beliefs (Fullan, 2016; Schweisfurth, 2013; Wideen et al, 1998). For example, in their analysis of the now discontinued National English Program in Basic Education (PNIEB), Ramírez Romero, et al (2014) highlight significant limitations of the short, one-off training courses that were offered as part of the program. Case studies from other countries provide similar findings (Altinyelken, 2010; de Segovia & Hardison, 2009). For example, Altinyelken (2010) examines the implementation of the "thematic curriculum" in Uganda, a student-centred approach to primary school teaching encouraging more meaningful content, hands-on activities, and opportunities for students to have more of an influence on the learning process. Altinyelken reports that teachers found that the training courses were too intensive and hurried, leaving many of them unsure about what they were expected to do.

Another problem identified in the literature is that there is rarely follow-up or ongoing support for teachers to help them solidify their understandings (Fullan, 2016; Wideen et al., 1998). Teacher education courses that incorporate opportunities for follow-up and ongoing support would seem to view educational changes not as simple, "quick fixes", but part of an ongoing process of teacher professional development (Fullan, 2016). Unfortunately, opportunities for teachers to engage in this kind of continuous professional development are rare, especially in developing countries (Altinyelken, 2010; Schweisfurth, 2013).

Opportunities for real practice

Although time is clearly an important factor in teacher education, it is not the length of time alone but what is done during the time that tends to make the difference (Wideen et al., 1998). For example, increased time may allow for more practical activities, such as observing other teachers and being observed by peers. Such activities allow teachers to experiment with new approaches and consider whether they are worth integrating into their existing belief structures (Díaz Maggioli, 2012; Haser & Star, 2009). Diaz Maggioli (2012), for example, argues that teachers must be invited to critically question their existing beliefs, and suggests that the ideal place for this to happen is the real language classroom. He suggests that observed teaching practices are an excellent way of "scaffolding" teachers' learning, and that enough time must be allowed to "derive new learnings from that experience and also opportunities to apply the new understandings to a new experience" (p. 106).

Opportunities for constructivist (teacher) learning

Another key factor in teacher education is the degree to which it is constructivist in nature. Constructivist learning implies scaffolding learning through active, hands-on activities, building on learners' prior experiences, providing opportunities for interaction and group work, and clearly focusing on real, concrete classroom application (Richardson, 2003). Many of these principles have been cited as important characteristics of the concept of student-centred learning (Bremner, 2015; Schweisfurth, 2013), but it is interesting to note that they are not always applied to teachers, who take on the role of learners when they attend teacher education courses. Schweisfurth (2013), for example, argues the following:

> So much of the literature on the failures of [student-centred learning] in developing countries begs the question: why are [student-centred] principles not used in the development of teachers? In contexts where [student-centred learning] is being implemented, teachers are learners, and it follows that they deserve the same attention, respect, patience and, above all, scaffolding. (p. 71)

One way of scaffolding teachers' learning is to provide immersion in new teaching approaches through the delivery of the courses themselves. The notion of immersion is addressed in the following section.

Opportunities for immersion in new practices

A regularly cited criticism of teacher education courses is that they are not delivered in a way that is consistent with the teaching approaches that they are advocating (Schweisfurth, 2013; Wideen et al.,1998). Indeed, many case studies provide examples in which teachers were encouraged to adopt more student-centred beliefs and practices, but the courses were not taught in a student-centred way themselves. In such cases, trainers are seemingly asking their participants to "do as I say, not as I do" (Wideen et al., 1998, p. 160).

For example, Dello-Iacovo (2009) suggests that Chinese teacher education, whilst often encouraging more student-centred approaches, is often "marred by the faults of the traditional education it was meant to replace, with large groups of teachers listening to theory-based lectures" (p.245). Conversely, Paige et al (2008) report that one of the key successes of a course on constructivist learning in South Africa was that it was taught in accordance with constructivist principles. When courses are delivered in such a way, participants are able to experience first-hand what it is like to learn with new approaches, and approaches are therefore better placed to decide the extent to which they might be

Opportunities for contextually appropriate reflection

The final main factor which is commonly cited as influencing the effectiveness of teacher education is the extent to which it is rooted in the participants' realities. Many studies report that teacher education can be overly prescriptive, seemingly advocating a "one-size-fits-all" attitude towards change implementation (Haser & Star, 2009; Kumaravadivelu, 2012; Schweisfurth, 2015). For example, Haser and Star (2009) cite an example of a pre-service university course in Turkey that introduced trainees to the theory of student-centred learning and encouraged the implementation student-centred approaches where possible. However, when trainees began their teaching practice, they encountered several difficulties, such as large class sizes (up to 70 students), heterogeneous groups, and a rigid national curriculum that did not allow much flexibility to adapt to learner needs. These difficulties led the trainees to adopt considerably more teacher-centred practices than had been recommended in their initial teacher training.

In light of these findings, several authors propose that teacher education should allow opportunities for teacher *reflective practice*, in order to provide teachers with the space to reflect about their beliefs and practices (Borg, 2011; Cabaroglu & Roberts, 2000). Indeed, many authors have suggested that the most effective courses are those that help teachers reflect about their own beliefs and consider how such beliefs might need to be adapted to their own contexts (Díaz Maggioli, 2012; Kumaravadivelu, 2012; Malderez & Wedell, 2007). For example, Kumaravadivelu (2012) has consistently advocated a non-prescriptive, "post-transmission" attitude towards teacher training, in which teachers are invited to reflect about different methods and approaches in their specific contexts. Diaz Maggioli (2012) suggests the term "visionary professional development" to refer to ways in which teacher trainers scaffold teachers' thinking as they consider ways of implementing contextually appropriate pedagogies. Finally, Malderez and Wedell (2007) propose an interesting approach called the "pendulum model", in which participants are asked to reflect in detail on their own contexts and their own beliefs *before* they are taught any new theories or approaches. They are then invited to consider the extent to which new practices may (or may not) be adapted to their own contexts.

Method

This study represents one aspect of a doctoral investigation which explored the beliefs and practices of five English teachers at a Mexican university. The main methodological approach used in the study was life history research. Life history is a qualitative tradition in which participants retrospectively examine the ways in which their lives have developed over time (Goodson & Sikes, 2017). Exploring people's life histories (in this case, their "educational" life histories) was thought to be an appropriate way of gathering different experiences of teacher education, as it would allow several examples of teacher education to emerge from each participant's life history. The main research questions of the study were as follows:

RQ1. What were the characteristics of teacher education that participants considered to be *effective* in influencing their beliefs?

RQ2. What were the characteristics of teacher education that participants considered to be *ineffective* in influencing their beliefs?

The context of the study was the "University of San Martín" (USM - a pseudonym), a publicly-funded university in a large city in Mexico. As the researcher had lived in Mexico for several years at the time of data collection and had developed relationships with several teachers at the USM, he was able to establish contact with potential participants through key contacts at the University English Department. As the study aimed to gather as many experiences of teacher education as possible, it was important to recruit participants who had several years of teaching experience. Teachers were introduced to the aims of the study during a staff meeting and contacted the researcher directly if they wanted to take part.

The sample size of this study was small, with only five participants' life histories analysed in detail. However, it is important to stress that the aim of this study was not to generalise the findings of this study to all contexts, but rather to provide sufficient detail for readers to decide the degree to which the findings might be transferable to their own contexts (Lincoln & Guba, 1985).

The first main stage of data collection was to carry out initial life history interviews with each teacher. These interviews allowed the participants to discuss the main events that had happened in their educational life histories, and more specifically their experiences of teacher education. The first interviews lasted between 45 and 80 minutes. Participants were given the choice of which language to use in the interviews, and all opted for English. After the initial interviews, each interview was transcribed and then analysed using the qualitative analysis tool NVivo (Version 11). The researcher then produced a written draft of the participants' educational life histories and sent these drafts for member checking, in which participants were invited to verify that the researcher's interpretations of the data were accurate. Relatively few changes were made at the member checking stage, which increased confidence in the trustworthiness of the findings (Lincoln & Guba, 1985).

The teachers were then invited to carry out a timeline task, in which they created a visual timeline of the most significant events that had happened in their educational life histories. Although timelines have not been used extensively in educational research, many researchers from other areas of the social sciences have argued that they may help participants recall and structure their ideas, among several other benefits (Chen, 2018; Kolar et al, 2015; Söderström, 2019). When participants finished the task, they were invited for a second interview in which they were asked to explain what they had written on their timelines. Data from the timelines were not analysed directly; the timelines were included to help facilitate the process of data collection and were not analysed as data in their own right. All five

participants expressed that they had found the timeline activity useful, and some stated that they were able to remember extra details after producing the timelines.

The process of data analysis using NVivo was as follows. Firstly, each educational life history was coded *chronologically.* This involved dividing each participants' educational life history into key chronological periods (different for each participant), and then coding interview data into these periods. Secondly, within each case, the data was coded *thematically* in order to focus on the research questions. During this process, there was a combination of *deductive* and *inductive* coding. The researcher began with certain pre-established codes (for example, "significant belief change"; "limited belief change"), but also allowed new categories and sub-categories to emerge naturally from the data. After completing the chronological and thematic coding for each case, the researcher carried out a cross-case analysis to compare the main themes emerging over the five cases. A summarised version of the cross-case analysis is presented Table 1.

Over the course of the interviews and timeline task, the participants identified several examples of both effective and ineffective training courses. In the following section, a selection of these experiences is presented. Limitations of space mean that it has not been possible to do justice to the complexity and nuance of each of the five participants' stories, but the researcher has tried, where possible, to preserve the individual nature of their life histories.

Findings

The experiences of Rebecca

The two most significant teacher education courses in Rebecca's educational life history were the In-service Certificate in English Language Teaching (ICELT) and her master's in Education.

The ICELT course (Rebecca)

Despite studying an undergraduate degree in Foreign Languages and having worked as an English teacher at the USM for five years, Rebecca had not attended any training courses before she took the ICELT course in 2000. The ICELT was run by the British Council and was specifically aimed at teachers who had teaching experience but who had not received any formal teacher training. Rebecca indicated that her beliefs were somewhat influenced by the course. However, she also highlighted some key limitations of the course:

> *It was a very active course […] we were observed teaching and we were given feedback, but it was just like that. […] I cannot find very meaningful things from the experience. […] It was a long course, and we did some assignments, but it was very fast and just like strategies or tips, things to do in your classroom to make it more communicative, that was it.* [Interview 1, Rebecca]

When reflecting on why the course may not have been particularly effective, Rebecca felt that it was overly prescriptive:

> *We were involved and we did a lot of things, but there was no thinking behind the doing; we were just doing it because they told us it worked.* [Interview 1, Rebecca]

She also felt that there was a lack of connection with her real classroom contexts:

> *Now I understand why the* [ICELT course] *didn't work: because there was no connection with the classroom. Teachers go on courses and they leave the experience there, and then they forget about everything and go back to the classroom.* [Interview 1, Rebecca]

Indeed, it was not until Rebecca studied for her master's degree in England that she had the most significant experience in her educational life history.

The Master's in Education (Rebecca)

According to Rebecca, the most influential experience in terms of her beliefs was a year-long master's in Education in the UK. One of the key characteristics was that the course itself was taught in a very "student-centred" way:

> *I did meaningful things that allowed me to keep those things and bring them back with me to my classroom.* […] *We actually lived, and experienced, student-centred learning.* [Interview 1, Rebecca]

However, perhaps the most important characteristic of the master's was that it encouraged Rebecca to reflect on her beliefs and practices, and discuss her reflections with others:

There was a lot of discussion, and a lot of reading, and talking about the things that we were reading. And I would say that discussion and reflection were the most important tools for actually understanding and making meaning of the things that we were doing.]Interview 1, Rebecca]

Overall, Rebecca returned to Mexico full of enthusiasm and ready to put into practice what she had learned:

I came back to San Martín very happy and satisfied, full of energy, and wanting to do things differently […]. *There were some very tangible things that I started doing consciously, because I knew they worked, because I had lived them.* [Interview 2, Rebecca]

For Rebecca, the ability to live different teaching approaches in person and to have the time and space to reflect about her beliefs and practices seem to have combined to create an extremely meaningful learning experience. Some of these characteristics were also mentioned by the other participants in the study.

The experiences of Elizabeth

To a large extent, the experiences of Elizabeth complement those of Rebecca. However, there were also some interesting differences, especially in relation to her experience on the ICELT course. One of the main themes emerging from Elizabeth's educational life history was that she had attended numerous teacher education courses, but most were too short to have much of an influence on her beliefs. Indeed, she stated she had attended so many of these courses that she could not even remember all of their names:

I've taken a lot [of courses]. *To tell you the truth, I don't remember all of their names* […] *I took one called "Strategies for Learning," and then there was the "competences" boom.* […] *Then, we took a course on "Task-Based Learning", and then there was "Project-Based Learning."* […] [Interview 1, Elizabeth]

While Elizabeth attended a wide range of courses, there were two that particularly stood out for her. These were the ICELT course (the same that Rebecca had attended five years earlier) and the "Learning to Learn" course, offered by the Psychology Department at the USM.

The ICELT course (Elizabeth)

It is important to recognise that Elizabeth's experiences of the ICELT course in 2005 were more positive than the experiences reported by Rebecca in 2000. Elizabeth indicated that the course involved observing others and being observed by peers, which she found very useful as she was able to experiment with new practices, learn from other teachers, and reflect on her own strengths and weaknesses. In particular, she mentioned that she began to think more about her students' needs:

[The ICELT course] *was a time for a lot of reflection about what I was teaching, and other teachers' teaching.* […] *In that course, you were thinking more about the students' needs.* [Interview 2, Elizabeth]

However, despite the emphasis on adapting classes to students' needs, Elizabeth also found the ICELT course somewhat prescriptive. For example, she expressed her frustration at having to cover all four of the language skills (listening, reading, speaking and writing) in every single lesson. Indeed, when looking back, Elizabeth became consciously aware that the ICELT course may have been overly prescriptive:

Looking back, even though they asked me on the course to work and plan my classes depending on what the students needed, it wasn't really like that, because I was planning with the timings and everything, and kind of pushing the students to complete the activities in that amount of time. That's why, looking back, I don't think I was really doing what my students needed. [Interview 2, Elizabeth]

Overall, despite the aforementioned shortcomings, Elizabeth felt that the ICELT course was one of the more meaningful experiences in her educational life history. This complemented her experiences on the Learning to Learn course, which she attended around the same time.

The Learning to Learn course

The Learning to Learn course was an optional course offered to all teachers at the USM. Elizabeth specifically identified reflection as a key characteristic of the course. However, this reflection was not only related to her students' learning, but also to the way she had learnt when she was a student:

[In the Learning to Learn course] *I was receiving feedback from other teachers, and we were listening to what the other teachers of the other content areas were doing with their students; how they were teaching them.* […] *I was also reflecting on the way we had been taught before, or the way we had learnt the language.* [Interview 2, Elizabeth]

Overall, Elizabeth felt both the ICELT course and the Learning to Learn course were the most significant events in terms of influencing her beliefs:

> *I think those courses were really good for me, and kind of influenced the way that I went on to change my way of teaching.* [Interview 2, Elizabeth]

Indeed, although she continued to attend numerous other short courses after these two (for example, training on CLIL - Content Language Integrated Learning), Elizabeth did not consider that they led to important changes in her beliefs.

The experiences of Ricardo

As the most experienced participant in the study, Ricardo mentioned numerous experiences of teacher education over the course of his career, but he reported that three of the most important of these experiences were the ICELT course (which, like Elizabeth, he took in 2005), a Certificate in E-tutoring, and a part-time online master's degree provided by a UK university.

The ICELT course (Ricardo)

Ricardo's perspectives on the ICELT course, which he took in the same year as Elizabeth, were more consistently positive than the experiences of either Rebecca or Elizabeth. In particular, Ricardo highlighted the importance of reflection, and especially the chance to apply these reflections to his own context:

> *We were given a lot of readings* […] *and we didn't have to memorise the information. That was something that I felt was interesting and useful, because we had to apply that information in the real contexts of our teaching.* […] *I also had to write some essays where I had to reflect about the theory, my teaching, and my conclusions about whether or not it was possible to apply that theory into practice.* [Interview 2, Ricardo]

It is interesting to note that these opportunities for contextually appropriate reflection seem to have been missing from Rebecca's ICELT course five years earlier. It is unclear whether this was because the course itself had been delivered in a slightly different way, or whether the same course had been interpreted differently by the participants.

The E-tutoring Certificate

In 2007, Ricardo took a course on "e-tutoring" offered by the USM. The most important characteristic of this course was that it appears to have modelled e-tutoring in the delivery of the course itself:

> *My experience as a student when I received the e-tutoring* [was that] *I observed that I learnt more. I didn't believe too much in technology, but after this experience, I saw that we can learn more than in a face-to-face class.* [Interview 1, Ricardo]

Indeed, it seems that through actually experiencing e-tutoring first-hand, Ricardo was able to judge how effective it could be, and thus consider how he might implement parts of it in his own practice. This appears to have been similar to the experiences of Rebecca in her master's in the UK, in which she appreciated being able to "live" a more student-centred approach.

The master's in Education (Ricardo)

Between 2008 and 2011, Ricardo studied for an online master's degree in Education offered by a UK university. Ricardo reported that the master's was the most significant experience in his educational life history, and again identified reflection as a key characteristic:

> *The master's degree in Education was the most significant student-centred learning experience, since the learning process was mainly reflective.* […] *I also had to write some essays where I had to reflect about the theory, my teaching, and my conclusions about whether or not it was possible to apply that theory into practice.* [Interview 2, Ricardo]

The quotation above reinforces the importance of providing opportunities for contextually appropriate reflection, which Ricardo also identified as an important characteristic of his ICELT course.

The experiences of Isabella

Isabella's educational life history was quite different from that of the previous three participants, as the most significant event took place during a compulsory educational reform in the United States. After moving to the United States to work as a teaching assistant, Isabella decided to stay and eventually found work as an English and Spanish teacher in a primary school in the state of Minnesota. It was during this time that she experienced the "Success for All Readers and Writers Workshop," a state-wide reform

that asked teachers to adopt a considerably more active, communicative approach towards teaching literacy.

Although she did not believe in the changes at first, Isabella did not have much choice but to do her best to implement them. However, over time, she became more confident putting the changes into practice, and soon became thoroughly convinced that they were better than what she had been doing previously:

> *It was hard at first, but the more I saw different teachers teaching this way, how they structured their classes*, [I realised] *it was better; the students actually learnt more, because if they're just sitting listening, they don't learn as much as if they're producing.* [Interview 1, Isabella]

Indeed, although the reform was mandatory, the Minnesota State Government provided a great deal of support for the teachers to help them get used to the changes. For example, Isabella reported that there were several forms of ongoing support for teachers, such as peer observation schemes:

> *I saw how they were doing these activities, and I started slowly putting them into practice into my class, and I realised that it worked, and that the students were learning, they were producing; it worked.* [Interview 2, Isabella]

Here, Isabella clearly benefited from the support she received over a sustained period of time. Moreover, although she did not believe in the changes initially, it was through actually trying them out in her own classroom that she became more convinced by them. When she eventually returned to Mexico after several years living abroad, Isabella felt that she was able to apply a lot of what she had learnt in the Readers and Writers Workshop with her students at the USM.

It is worth pointing out that Isabella also studied a part-time master's degree in Education whilst living in the United States. However, her experiences studying her master's seem to have been less meaningful than those of Rebecca and Ricardo. This appears to have been because the course was overly theoretical and teacher-centred:

> *My teachers were kind of old school, so I didn't exactly see* [student-centred learning] *during my master's.* [Interview 1, Isabella]

The example above reminds us that it is not always the content but rather the mode of delivery of a course that may create the conditions for changes in teachers' beliefs.

The experiences of Antonio

Antonio's educational life history was also quite different from that of the other participants. His story was characterised by a gradual build-up of frustration: over time, he began to perceive the lack of effectiveness of traditional teacher-centred approaches. For example, during his undergraduate degree, he expressed frustration at some teachers who did not "practise what they preached." Indeed, the excerpt below is a clear example of a teacher education course that was not able to immerse its students in the approaches that it was supposed to advocate:

> *I learnt a lot from two or three teachers, who actually practised what they preached,* [but] *the teacher who was supposed to be teaching "teaching"* […] *was very bad. He made us learn all the history of English language teaching, and the different approaches, methodologies, all those things, but he didn't use any of them* [in his own classes]. [Interview 1, Antonio]

A key moment for Antonio's beliefs was when he had to design an exam to be sent to a local school. When piloting the exam with his own students, he found that most students had scored quite well in terms of linguistic accuracy, but very poorly on the productive skills. It was at this point that he decided that he had to change his practices. Antonio began reflecting on what he might do to improve results with his students, and he began to experiment with a range of different teaching methods and approaches. After receiving largely positive feedback from students, Antonio continued to develop these new methods and approaches in his teaching, and this positive feedback served to reinforce his belief in these new ways of teaching.

Cross-case analysis and discussion

The experiences of the five teachers provide several examples of teacher education, some of which were effective at influencing the participants' beliefs and some of which were ineffective. Table 1 below summarises these examples, and aligns them with the main characteristics of teacher education identified in the literature review. Examples of teacher education that led to significant changes in the participants' beliefs have been highlighted in green, whilst examples that did not lead to significant changes have been highlighted in pink.

	Rebecca	Elizabeth	Ricardo	Isabella	Antonio
Length of course	master's (UK – face-to-face)	ICELT (2005) / Several ineffective short courses	master's (UK - online)	Readers and Writers Workshop	
Opportunities for real practice		ICELT (2005)		Readers and Writers Workshop	
Opportunities for constructivist teacher learning	master's (UK – face-to-face)			master's (USA – face-to-face)	
Opportunities for Immersion in new practices	master's (UK – face-to-face)		master's (UK - online); E-tutoring	master's (USA – face-to-face)	Undergraduate degree at USM
Opportunities for contextually appropriate reflection	master's (UK – face-to-face) / ICELT (2000)	Learning to Learn course / ICELT (2005)	master's (UK - online); / ICELT (2005)		

Table 1. Key examples of teacher education courses with certain characteristics

The examples in Table 1 share many similarities with other case studies in the literature. Firstly, the most effective teacher education courses were those that were long enough for significant changes in beliefs to occur, for example, Rebecca and Ricardo's master's courses and Isabella's Readers and Writers Workshop, which all lasted at least six months. Moreover, Elizabeth identified numerous examples of courses that were too short to have any meaningful impact on her beliefs. These findings are consistent with those of other studies (Altinyelken, 2010; de Segovia & Hardison, 2009; Ramírez Romero et al., 2014).

Another characteristic of effective teacher education was opportunities for real practice. For example, as part of the Readers and Writers Workshop, Isabella took part in a peer observation scheme, which she found extremely useful. Elizabeth also stated that she had found the observed teaching practices in the ICELT course to be beneficial. Again, the participants' experiences resonate with the literature, which emphasises the importance of connecting theory with practice through observations and teaching practices (Díaz Maggioli, 2012; Haser & Star, 2009).

The next key characteristic of teacher education courses was opportunities for constructivist teacher learning. The experiences of Rebecca studying her master's in the UK, and Isabella studying her master's in the USA, provide an interesting contrast here. During her master's degree in the UK, Rebecca reported that there was a great deal of interactive discussion, which helped her to engage and find meaning in the topics she was studying. Isabella, on the other hand, did not find her master's to be particularly meaningful, given that the teaching approach was very transmission-based. The examples of Rebecca and Isabella reinforce the argument that teacher education must view its participants not merely as teachers but also as learners, and consider ways of facilitating their learning through active and interactive approaches (Schweisfurth, 2013).

One way of making teacher education more meaningful was to create opportunities for immersion in new practices (i.e. to deliver courses in the same way as the aims of the desired changes). For example, Ricardo cited that one of the key reasons he considered implementing e-tutoring was that the course itself had modelled e-tutoring with its participants. A key contrast to this was Antonio's experience whilst studying for his undergraduate degree. Antonio expressed his frustration at being taught *about* a wide range of new teaching approaches, but without ever *experiencing* any of these approaches himself. Again, the experiences of Ricardo and Antonio reflect the points made in several case studies in the literature (Dello-Iacovo, 2009; Paige et al., 2008; Schweisfurth, 2013).

The final main characteristic of effective teacher education was opportunities for contextually appropriate reflection. For example, when studying for their master's degrees, both Rebecca and Ricardo indicated that being able to reflect about their beliefs and practices was one of the most important reasons that

they contemplated changing them. Moreover, Elizabeth cited the ICELT course and the Learning to Learn course as the most significant learning experiences in her educational life history, emphasising the importance of reflection as an essential part of both of these courses. Once again, the findings from the participants in this study are consistent with the experiences of several other studies in the literature (Borg, 2011; Cabaroglu & Roberts, 2000; Haser & Star, 2009).

This study also raises an interesting point about the spirit with which teacher education is offered: is the teacher free to adopt new beliefs and practices, or is the teacher pressured or even mandated to adopt them? For example, Ricardo's educational life history was characterised by a wide range of teacher education courses and the ability to gradually decide which aspects might be applicable to his own classes. In contrast, Isabella was essentially "forced" to change her practices on the Readers and Writers reform in the United States, but it was actually through doing so and experiencing positive results that her beliefs began to change. The educational change literature often argues against "top-down" reforms (Díaz Maggioli, 2012; Kumaravadivelu, 2012), but examples like these demonstrate that important changes in beliefs can occur in the context of compulsory reform. However, it must also be recognised that the Readers and Writers Workshop was accompanied by a significant amount of ongoing support, which was vital in helping Isabella assimilate the changes.

A final point worth mentioning is that teacher education is not the only reason that teachers' beliefs might change. As the case of Antonio demonstrates, teachers' beliefs might change for other reasons, for example, when experiencing poor results with the approaches that they are currently using. However, like Ricardo, it is worth noting that Antonio's working context granted him a considerable degree of academic freedom to experiment with new approaches. Such flexibility may not always be afforded to teachers.

Conclusions and implications

In this section, the main findings of the research are summarised and key implications are discussed. To review, the research questions of this study were as follows:

> RQ1. What were the characteristics of teacher education that participants considered to be *effective* in influencing their beliefs?

> RQ2. What were the characteristics of teacher education that participants considered to be *ineffective* in influencing their beliefs?

Although the sample size of this study is small, the experiences of the five teachers reinforce the findings of many other case studies in the literature. Five characteristics of teacher education courses that had an influence on teachers' beliefs (RQ1) were identified: length of course (i.e. long enough to make an impact), opportunities for real practice, opportunities for constructivist teacher learning, opportunities for immersion in new practices, and opportunities for contextually appropriate reflection. Conversely, teacher education courses that did not influence teachers' beliefs (RQ2) were overly short in duration, focused on theory and transmission of knowledge, lacked modelling of desired approaches, and were disconnected from real contexts.

Clearly, due to time and resource constraints, not all teacher education will be able to include all of the aforementioned positive characteristics (and avoid all of the negative characteristics). However, if educational change planners are serious about providing teacher training which aims to make meaningful changes in teachers' beliefs as well as in their practices, they should take at least some of these characteristics into account when designing future teacher education courses.

It must be recognised that changes in beliefs resulting from teacher education does not guarantee effective change implementation. As has been argued previously (Bremner, 2015; Song, 2015; Wedell, 2009), changing teachers' beliefs represents only one component of the educational change process, and aspects such as contextual constraints (classroom resources, inconsistent syllabi, high-stakes examinations, and so on) may limit the degree to which teachers are able to put their beliefs into practice. Whilst providing effective teacher education is of vital importance, education planners must also focus on providing appropriate conditions in which teachers can work effectively.

In fact, it could be argued that it is unrealistic to expect contextual constraints to be reduced. If this is the case, then this further reinforces the argument that teacher education should allow opportunities for contextually appropriate reflection. Approaches to teacher training that allow time for participants to consider how they might adapt new teaching approaches in their own contexts are surely more meaningful than courses that prescribe "one-size-fits-all" solutions (Brinkmann, 2019; Kumaravadivelu,

2012; Wedell, 2009). The fact that many of the "success stories" described in this paper have incorporated this more reflective approach to teacher education lends further support to the argument that contextually appropriate reflection should be seriously considered by educational change planners.

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