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Using Qualitative Research Methods to Assess the Degree of Fit between Teachers’ Reported Self-efficacy Beliefs and their Practical Knowledge during Teacher Education

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Abstract: There is a need for qualitative research into teachers’ self-efficacy beliefs so that the relationship between these beliefs and other cognitions possessed by teachers, including their practical knowledge, can be better understood by teacher educators. Teachers’ self-efficacy beliefs may need supporting if they seem too low or challenging if they seem too high. However, clear criteria are needed to facilitate assessment, together with the use of rigorous qualitative methods. This article explores these issues while reporting on research conducted in Oman into the cognitions of two in-service English language teachers. There is a focus on how qualitative case study research methodology was used to assess the degree of fit between teachers’ reported self-efficacy beliefs and their practical knowledge, aiding subsequent intervention to support professional development. Implications for teacher educators and researchers are discussed.

The Need for Qualitative Research

In two seminal reviews of the literature conducted more than a decade ago, it was acknowledged that qualitative methods in research into teachers’ self-efficacy (TSE) beliefs were “overwhelmingly neglected”, this despite the need for “interviews and observational data [to] provide a thick, rich description” (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998, p. 242) of teachers studied ‘in-depth’ (Henson, 2002). Persuasive arguments have since been made for the use of interpretive qualitative case study research methodology to provide broader and deeper understandings of TSE beliefs (Labone, 2004; Wheatley, 2005), but despite calls by these researchers there is limited evidence of uptake, as recent reviews of the literature (e.g. Klassen et al., 2011; Wyatt, 2014) reveal. Indeed, it is apparent from this recent work that only five qualitative case studies focusing on the self-efficacy beliefs of individual teachers (Milner, 2002; Milner & Woolfolk Hoy, 2003; Mulholland & Wallace, 2001; Wyatt, 2010, 2013a) have been published in international peer-reviewed journals in English so far in the 21st century; only the last three of these explored longitudinal development.

This should be a cause for concern, since it can be problematic if any one methodological approach to educational research is allowed to dominate any particular line of enquiry, as only certain kinds of explanations and interpretations may then be heard (Pring, 2004). In the field of research into TSE beliefs, a continual neglect of qualitative research methodology over the years has unfortunately led to various misconceptions and misapplications of theory that are all too evident in the literature (Wheatley, 2005; Wyatt, 2014). Klassen et al. (2011), for example, found that nearly half the 220 predominantly
quantitative studies published since 1998 they examined were “conceptually suspect”, offering “misleading conclusions” and suffering from “a kind of definitional entropy” (p. 36-37). Some of the key problems bedevilling much of the quantitative research are as follows:

Use of Muddled Definitions

In distinguishing between self-efficacy beliefs and their related outcome expectations, Bandura (1977, p. 193) defined the latter in terms of personal estimates that “given behaviour will lead to certain outcomes”; these are means-ends beliefs. A self-efficacy belief, in contrast, he explained, “is the conviction that one can successfully execute the behaviour required to produce the outcomes”; this conviction is centred on an agent-means belief. Unfortunately, though, researchers seeking to extend understandings developed from Bandura’s (1977) original experimental research with snake phobics to apply to the complex activity of teaching have run into difficulties, confusing agent-means, means-ends and the agent-ends beliefs that may not consider means (Wheatley, 2005). Tschannen-Moran et al. (1998, p. 233), for example, define TSE beliefs as beliefs regarding the “capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context”, which reflects Bandura’s (1977) agent-means perspective, since the focus is clearly on performance. However, these authors intend their definition differently, declaring it combines both agent-means and means-ends perspectives (Tschannen-Moran et al., 1998, p. 233). Then, several years later and without indicating any reason for a change in stance, Tschannen-Moran and Woolfolk Hoy (2001, p. 783) adopt a clearly agent-ends perspective in defining TSE beliefs as beliefs in the capability “to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated”. Conceptually, these definitions are very different, although this has been little commented on. Numerous researchers (e.g. Moafian & Ghanizadeh, 2009) have followed the 1998 definition, while numerous others (e.g. Chacón, 2005) have used that from 2001. However, Dellinger et al. (2008) have criticized the 2001 definition for being insufficiently specific about what teachers actually do to bring about learning; self-efficacy beliefs are task-, domain- and context-specific (Bandura, 1986). Meanwhile, other researchers, e.g. Takahashi (2011), have criticized definitions of TSE beliefs that do not incorporate means-ends as well as agent-means perspectives.

Muddled definitions inevitably lead to confused research. Distinctions between agent-means, agent-ends and means-ends beliefs are important for reasons that will subsequently become clearer in this article. A recent definition drawn from qualitative research that addresses the issues above, i.e. by being centred on an agent-means perspective but reflecting, too, teachers’ concerns for outcomes and how these are achieved, is as follows: TSE beliefs are teachers’ “beliefs in their abilities to support learning in various task- and context-specific cognitive, metacognitive, affective and social ways” (Wyatt, 2010, p. 603).

Failure to Focus on Specific TSE Beliefs

A second issue is that researchers rarely focus on specific TSE beliefs, despite claiming the importance of these. Tschannen-Moran et al. (1998, p. 220), for example, argue convincingly: “Teachers feel efficacious for teaching particular subjects to certain students in specific settings, and they can be expected to feel more or less efficacious under different circumstances”, as aspects of the task or context change. ‘Microanalytical’ levels of
assessment are thus required (Pajares, 1996), but instead omnibus-type questionnaire instruments are generally used (e.g. by Tschannen-Moran & Woolfolk Hoy, 2001); these “provide global scores that decontextualize the self-efficacy - behaviour correspondence and transform self-efficacy beliefs into a generalized personality trait rather than the context-specific judgements Bandura suggests they are” (Pajares, 1996, p. 547). Unfortunately, this is a criticism that can be levelled at much quantitative research (Wheatley, 2005), though Siwatu (2007, 2011) offers an alternative analytical approach by exploring specific questionnaire items. Other researchers have shown increasing interest in developing subject-specific questionnaires, e.g. through focusing on teaching reading (Haverback & Parault, 2011), literacy (Tschannen-Moran & Johnson, 2011), physical education, science, mathematics or technology (as highlighted by Klassen et al., 2011) rather than teaching in general. However, scores on different items that can be qualitatively very different are still quantified by these researchers to get a global score which masks task-specific self-efficacy beliefs. This unfortunately prevents teacher educators from then discovering which specific problems need to be addressed (Wheatley, 2005; Wyatt, 2014). Siwatu’s (2007, 2011) findings demonstrate that focusing on responses to specific items is valuable from a teacher educator perspective; qualitative research (e.g. Wyatt, 2010, 2013a) can also get specific.

Failure to Comprehend Growth Processes

It is generally accepted by most researchers that TSE beliefs are shaped by enactive mastery and vicarious experiences, verbal persuasion and physiological arousal (Bandura, 1986; Wyatt, 2014). In the context of teacher education, enactive mastery experiences might be encouraged through hands-on activities such as micro-teaching, while vicarious experiences can be promoted through reading or collaborative learning; verbal ‘persuasion’ or ‘support’ (Tschannen-Moran & Woolfolk Hoy, 2007) can be made available in the form of appropriately-framed mentor feedback (Usher & Pajares, 2008). In a rare mixed methods study exploring TSE beliefs growth, Henson (2001) reports of in-service teachers, supported by an empowering teacher education programme that incorporated input, mentoring and action research, becoming more efficacious about their work in helping special needs children.

Many quantitative researchers, though, appear to view TSE beliefs as “an immutable trait” (Ross 1994, p. 382) or “relatively stable once set” (Tschannen-Moran & Johnson, 2011, p. 760). Chacón (2005), for example, sees them as formed early, self-perpetuating and fixed. However, if we follow the analysis of various types of beliefs provided by Pajares (1992), TSE beliefs, as beliefs that are sensitive to changes in the context, should, in fact, be open to growth.

If TSE beliefs development is discussed at all in quantitative studies, it is generally portrayed over-simplistically. In Tschannen-Moran et al.’s (1998) model, for example, greater self-efficacy beliefs lead to better performance and then to even greater self-efficacy beliefs in ever upward spirals unless the opposite scenario occurs (lower-worse-lower). However, Wheatley (2002) points out that doubting ones self-efficacy beliefs can be highly beneficial as these doubts are central to reflection, learning and growth. This notion has been described as ‘a puzzle’ by Tschannen-Moran and Johnson (2011), while Woolfolk Hoy and Davis (2006) suggest that positive self-efficacy beliefs might be needed to overcome the doubts. As Pajares (1992, p. 315) explains, though: “Conceptualising a belief system involves the understanding that this system is composed of beliefs connected to one another and to
To overcome doubts, teachers might draw upon other types of beliefs, e.g., self-beliefs in their ability to learn incrementally throughout their lives (Dweck, 2000), as Wyatt (2013a) suggests. Of course, global self-efficacy beliefs might be important too (the relationship between these beliefs and task-specific self-efficacy beliefs needs exploring). Other motivational constructs that have been conceptualized as interacting with self-efficacy beliefs, e.g., relatedness and autonomy in Ryan and Deci’s (2000) Self-Determination Theory, may also be crucial. Qualitative research is required to explore these various relationships and the role of teacher education in impacting them.

Blind Faith that Positive TSE beliefs are Ends in Themselves

Underpinning much of the quantitative research literature (e.g., as surveyed by Tschannen–Moran & Woolfolk Hoy, 2001) is a usually un-stated assumption that not only are positive TSE beliefs good in themselves but also that they correlate to some extent with teachers’ actual abilities, though there is the proviso that, unlike experienced teachers, novice teachers sometimes over-estimate their self-efficacy beliefs before ‘reality shock’ sets in (Tschannen-Moran & Woolfolk Hoy, 2007). These correlations have gained some empirical support, though this is limited in scope. For example, in a qualitative case study of an in-service English teacher using group work, Wyatt (2010) found a degree of fit between dimensions of his practical knowledge regarding the learners and learning, the curriculum, teaching techniques, the self and the school context, and his TSE beliefs in the same areas. Meanwhile, recent mixed methods studies of pre-service teachers with practicum experience (Settlage et al., 2009; Haverback & Parault, 2011) uncovered the over-estimated TSE beliefs Tschannen-Moran and Woolfolk Hoy (2007) suggested they might find. Indeed, the pre-service teachers in Settlage et al.’s (2009, p. 119) study “held exaggerated self-efficacy [beliefs] incongruous with their abilities”. This was a cause for concern and raises questions; e.g., How do such beliefs become better aligned with their practically-oriented cognitions and actions as these relate to task fulfilment? Which factors seem to help?

Recent studies that have assessed TSE beliefs for their ‘degree of fit’ (Lincoln and Guba, 1985) with knowledge are very rare, and like those earlier reviewed by Fives (2003) tend to be limited in various ways, e.g., by depending on only a few scripted questions in interviews (Haverback & Parault, 2011), relying on self-report data (Chacón, 2005) and quantifying responses so that task-specific TSE beliefs are hidden within very different global beliefs, as Pajares (1996) and Wheatley (2005) complain of such methodology. It has been conjectured that teachers function best if they slightly over-estimate their TSE beliefs (Bandura, 1997) and indeed, from a teacher educator perspective, it might seem deeply problematic if there is a serious lack of fit between TSE beliefs and knowledge/skills. Wheatley (2002) has warned of teachers either having very low self-efficacy beliefs, which can lead to cognitive dissonance, or very high self-efficacy beliefs, which bear little relation to reality; such beliefs can leave teachers less open to the doubt and reflection which would help them learn. Both scenarios are deeply unhealthy. A sense of cognitive dissonance, Wheatley explains, can lead to the teaching task being avoided and/or devalued in the teacher’s mind, leading to passive or cynical teacher behaviour. At the other extreme, over-efficacious teachers are not learning teachers and teaching is a learning profession (Lampert, 2010). As to the extent to which this is a problem and how it can be addressed, these are questions for research.
Summary

Troubled by the imbalances in the predominantly quantitative research methodology (Labone, 2004) and by the lack of obvious usefulness of much of this work for tackling real world educational problems (Wheatley, 2005), the qualitative TSE beliefs researcher might search for practical applications from a teacher educator perspective. Relevant questions include: How can qualitative research methods help identify and explain any apparent lack of fit between teachers’ reported self-efficacy beliefs and their knowledge/skills? How can this analysis facilitate subsequent intervention to support teacher development? This article reports on research addressing these issues, after first introducing criteria required for assessing TSE beliefs for degree of fit.

Before proceeding to these criteria, though, the term ‘degree of fit’ (Lincoln & Guba, 1985) itself requires some comment. From the philosophical perspective of interpretive qualitative research, “we can explore, catch glimpses, illuminate and then try to interpret bits of reality”; we are not seeking to ‘master’ reality through use of quantitative research instruments in the normative tradition (Holliday, 2002, p. 5). Thus, rather than using the more positivist term ‘accuracy’, this suggesting “a single, tangible reality” (Lincoln & Guba, 1985, p. 28), ‘degree of fit’ might seem preferable, particularly since we may need to be especially cautious when investigating beliefs, which include those tacitly held and open to being shaped by different methods of elicitation (Borg, 2006). Indeed, on this subject, Pajares (1992, p. 308) warns us that “many see [the notion, belief] so steeped in mystery that it can never be clearly defined or made a useful subject of research”. He argues, on the contrary, that studying teachers’ beliefs is “a necessary and valuable avenue of educational enquiry” (Pajares, 1992, p. 326), but also points out that little will have been accomplished unless research explores the relationships between teachers’ beliefs, knowledge and practices. Hence, in investigating the highly specific role of TSE beliefs in mediating effort as knowledge is transformed into action (Fives, 2003), a level of caution is required in making inferences, and degree of fit seems an appropriate concept to draw upon. The negative I use is ‘lack of fit’, since, when applied to beliefs, this seems less pejorative than alternatives such as ‘incongruous’, ‘mismatched’, ‘inconsistent’ and ‘discrepant’ (Phipps & Borg, 2009).

Criteria That Can Be Used to Assess TSE beliefs for Degree of Fit

To develop criteria that allow us to assess TSE beliefs for degree of fit, we need to focus initially on teachers’ knowledge. I start with an example. The first item of Tschannen-Moran and Woolfolk Hoy’s (2001) much employed TSE beliefs survey is the following: “To what extent can you use a variety of assessment strategies?” (p. 800). Let us imagine the various cognitions of an expert teacher seeking to answer this question truthfully and assign an appropriate Likert-scale score. Firstly, the teacher might reflect on her theoretical understandings of assessment, both formative (to support the learning process) and summative (to provide information about achievement) (see Davison & Leung [2009] for a recent discussion of these concepts). Secondly, she might reflect on the different types of assessment she is familiar with in her daily work, including perhaps continuous assessment (e.g. through classroom observation, homework, projects and portfolios, presentations, self-assessment) and tests; she might reflect on her experiences of writing test items and piloting them, administering assessment, marking, giving feedback, sharing the results of assessment with colleagues and parents. So, when our imaginary teacher thinks of her practical
experiences of using a variety of assessment strategies, she may be thinking of specific situations in her school, of particular classes and individual learners, of their responses to assessment, of how, perhaps, like many teachers, she has drawn upon her assessment of these learners in evaluating and subsequently modifying her own teaching as well as the learners’ course of study, of how, therefore, her use of varied assessment strategies has supported the development of her teaching skills and her engagement with the curriculum.

In short, an expert teacher might invest considerable meaning in Tschannen–Moran and Woolfolk Hoy’s (2001) question on assessment strategies. She might draw upon various types of knowledge in addressing it, knowledge which a pre-service or novice teacher might not possess to the same extent.

While the knowledge possessed by teachers has been examined from different perspectives, there is broad agreement they possess knowledge both formal and practical in nature (Fenstermacher, 1994). The importance of understanding teachers’ practical knowledge regarding the self, milieu, subject matter, curriculum and instruction was first emphasised by Elbaz (1981). Practical knowledge is the knowledge “directly related to action … readily accessible and applicable to coping with real-life situations and largely derived from teachers’ own classroom experience” (Calderhead, 1988, p. 54). Teachers possess formal knowledge, too, evident, for example, in their subject matter content knowledge and pedagogical content knowledge (Shulman, 1987), the latter notion implying they “transform their knowledge of the subject matter into a form which makes it amenable to teaching and learning” (Borg, 2006, p. 19). Borg describes the knowledge possessed by teachers as “personal, practical (though informed by formal knowledge), tacit, systematic and dynamic… defined and refined on the basis of educational and professional experiences” throughout their lives (p. 35). This last point is important; the knowledge possessed by teachers develops over time and that possessed by novice teachers is likely to be less developed than that of their experienced peers, as case studies of expertise, e.g. Tsui (2003), reveal.

Analysing teacher knowledge provides a basis for establishing criteria to assess the apparent degree of fit of reported TSE beliefs. To return to Tschannen–Moran and Woolfolk Hoy’s (2001) survey item: “To what extent can you use a variety of assessment strategies?” (800), we could assess the degree of fit of a teacher’s Likert-scale self-efficacy score by analysing aspects of her knowledge from a perspective partially descriptive and partially evaluative, by, in a sense, combining questions Fenstermacher (1994, p. 5) argues Elbaz (1981) and Shulman (1987) are respectively posing: “What do teachers know?” and “What knowledge is essential for teaching?”. Let us suppose, the teacher has scored herself as highly efficacious on using a variety of assessment strategies. As researchers, we could ask:

- How well developed is her theoretical understanding of the term ‘assessment’? Does this include, for example, a differentiation between formative and summative assessment? In her discourse, does she relate assessment to evaluation, and if so, how? To what extent does her theoretical understanding of assessment appear to be in line with current thinking about the role of assessment in teaching and learning? If it differs, in what ways does it do so? How is her theoretical knowledge realized in practice? Is there a good fit?

- Which assessment strategies does she appear to be familiar with? Does she use a variety of strategies (including different forms of continuous assessment and different types of test)? Are there any common strategies she does not appear to use or perhaps may over-use? Why is this?

- Does she appear to vary her use of strategies flexibly according to her understanding of the learners and their characteristics and the nature of the subject matter being
taught within the context provided by the school and the curriculum being followed? Which context-specific factors appear to most influence her use of strategies?

- Does her use of different assessment strategies appear to be linked to clear and internally-consistent principles regarding teaching and learning? If not, where are there anomalies? How reflective is she in her use of assessment strategies? Does she reflect deeply on their use?

These are, of course, just sample questions designed to illustrate how research into teachers’ primarily practically-oriented knowledge (Borg, 2006) can be used to generate criteria against which the degree of fit of reported TSE beliefs can be assessed. In making such assessments, the affective dimensions of teachers’ cognitions need to be considered too, as their physiological states trigger self-efficacy beliefs (Bandura, 1997). We could ask:

- Does the teacher appear self-confident in using a variety of assessment strategies in the classroom? Are there clues in terms of body language, gestures, eye contact, choice of words or voice?

Clearly, any inferences of this type drawn from observational data alone are open to attribution error (Kennedy, 2010) and need questioning. Nevertheless, if a teacher appears nervous in enacting an aspect of practical knowledge, such as carrying out a peer assessment activity with a group of learners in an observed lesson, this might bring into question a positive TSE belief statement in precisely the same area elicited just afterwards. Teachers might provide statements that suggest lack of fit for a number of reasons, e.g. out of a lack of self-awareness, an unwillingness to reflect or memory loss, which relate to the quality of self-monitoring (Bandura, 1997) or out of a desire to impress the interlocutor or to provide the ‘right’ answer, which relate to a ‘social desirability’ response bias (Collins, Shattell & Thomas, 2005).

Alternatively, if their classroom actions suggest self-confidence, but their task-specific TSE belief statements elicited soon afterwards suggest the opposite, this might be out of ‘defensive pessimism’ (Wolters, 2003). This is a strategy that may be beneficial in increasing willingness to engage in certain types of motivated behaviour, such as more careful planning, as “outcomes associated with anticipated failure” (p. 199) can then be avoided. More research in this area is needed, as Wolters argues. Defensive pessimism, though, might act as a filter, allowing the individual some protection while they are in the act of expressing their self-efficacy beliefs.

Various socio-cultural and contextual factors might also partly explain a combination of apparently efficacious teaching behaviour with much more cautious TSE belief statements. In academic settings, for example, teachers on pre-service and in-service courses are generally taught to ‘hedge’, i.e. express themselves cautiously by using modals such as ‘could’ or ‘might’ and otherwise qualify positive statements in their discourse. As this training impacts cognitions (Hyland, 1994), it might also affect the way they express their TSE beliefs. Statements about beliefs need questioning.

A methodological implication, therefore, is that to assess the degree of fit of a teacher’s self-efficacy beliefs, the use of several methods together might be preferable. These may include interviews designed to explore in-depth the various types of formal and practical knowledge teachers possess and observations to capture the performative elements of their practical knowledge and to gather clues about the affective dimensions of their teaching experience. Observational data need to be treated cautiously too, though. Our inferences are based on perceptions, expectations and interpretations, and error may creep into any stage of our analysis (Kennedy, 2010).
Such methodology might be used longitudinally to explore changes over time, with initial observations and interviews establishing a TSE beliefs focus relating to the teacher’s concerns, e.g. the use of group work in elementary science teaching (Mulholland & Wallace, 2001). Interviews might also explore the sources of beliefs and the nature of them (agent-means, agent-ends, means-ends) (Wheatley, 2005). This analysis in turn might have implications for teacher education strategies. E.g. if a teacher appears to hold exaggeratedly high beliefs, is this due to over-confidence in the ability to use a particular method (regardless of outcomes) or perhaps over-confidence in the power of this method to support learning (regardless of estimates of personal ability)? Depending on the result of such an analysis, does the teacher need to focus more clearly on observed learning outcomes, reflect more critically on performance or perhaps read and reflect on theoretical input? Strategies used to support knowledge growth and TSE beliefs development might therefore vary considerably according to the perceived need.

Research Context

I was concerned with these issues while working on a teacher education project, a University of Leeds BA in teaching English to speakers of other languages (TESOL) that was offered to Diploma-holding teachers in the Sultanate of Oman. In this fast-developing Middle-Eastern country, English is widely used in government, business and education (Fussell, 2011).

My role as a regional tutor involved managing a regional training centre, where, through providing lectures, seminars and tutorials, and maintaining a small library, I helped a cohort of 35 teachers studying part-time progress through the three-year course. I also visited the teachers in their schools, observing them once a semester and giving feedback on lessons that were not formally assessed; the teachers had opportunities to try out ideas they met on the course, but there was no requirement they should do so in observed lessons. Course assessment was through exams and practically-oriented written assignments.

The programme took place at a time of curriculum renewal and one of the project aims was to empower the participating teachers (who had a minimum of five years teaching experience) to contribute to this. The curriculum of the degree, which was praised by independent evaluators as offering “a state-of-the-art coverage of the field of TESOL” (Richards & Rixon, 2002, p. 5), provided input on English language teaching methodology, language analysis and research methods.

The programme was ‘constructivist’ (Dangel & Guyton, 2004, p. 2) in that it was built on the epistemological perspective that learning teaching is a deeply personal activity involving the examining of beliefs and prior knowledge in light of learning experiences and the teaching context. According to Dangel and Guyton, constructivist teacher education encourages reflection, collaborative learning, problem-solving and action research; these were features of the programme design. For example, consciousness-raising activities were included in teaching sessions, there were practical tasks that involved problem-solving in groups, and the teachers frequently designed, trialled and evaluated small-scale classroom innovations they could enact in their schools, supported by context-sensitive mentoring (see Atkins, Lamb & Wedell [2009] for more details). Various opportunities for developing both practical knowledge and TSE beliefs were thus embedded in the course. My consciousness of this informed my work, e.g. in the way I taught, mentored and adapted teacher training materials.
Research Methodology

It follows that in conducting the research described here, which was longitudinal, qualitative case study (Stake, 1995), I was a committed insider (Holliday, 2002) focused on supporting the development of teachers I was researching. This links my research to critical theory (Cohen, Manion and Morrison, 2007), and to Holliday’s (2002) progressive qualitative paradigm. Such a theoretical position requires constant reflexivity, which involved me, as the researcher, continually questioning the impact of my role on all aspects of the research, and building in quality procedures through the process, e.g. use of a ‘critical friend’ (Altrichter, Posch and Somekh, 1993), not simply to better understand ‘researcher effects’, but also to find ways to capitalize on my presence in the setting (Holliday, 2002). However, to some extent, this work can also be seen as interpretive case study, as I was exploring how teachers’ growth was influenced by a major project, in which my own role, as an ‘agent of change’ (Kennedy, 1996), was restricted to providing certain kinds of support. For example, I had no influence on the school contexts the teachers worked in.

My research questions are as follows:

1. How did the use of qualitative research methods help identify and explain any apparent lack of fit between teachers’ reported self-efficacy beliefs and their practical knowledge?
2. How was this analysis able to facilitate subsequent intervention to support teacher development?

I explore these questions by focusing on two teachers who were part of the original ‘multi-case study’ (Stake, 1995) of five teachers that analysed degree of fit between practical knowledge and TSE beliefs (Wyatt, 2008). One of these two is Sarah, whose TSE beliefs regarding adjusting to teach Grade 1 after a decade teaching higher grades I have discussed elsewhere (Wyatt, 2013a). The findings of this study revealed that Sarah managed to overcome self-efficacy doubts (Wheatley, 2002) in relation to this particular task, seemingly helped by enactive mastery experiences, reflection and an incremental view of her own learning potential (Dweck, 2000). Developing practical knowledge thus helped her overcome the fear that was part of her experience of low self-efficacy beliefs (Wyatt, 2013a).

However, there was another focus to my original research into Sarah’s development (Wyatt, 2008), which was on her use of communicative language teaching (CLT) to develop speaking skills in a girls’ lower secondary school; this engaged her throughout the three-year degree and became the subject of her dissertation. I have discussed aspects of her practical knowledge and motivation more generally in relation to this task elsewhere (Wyatt, 2009, 2011, 2013b; Wyatt & Borg, 2011), but not her TSE beliefs. The reason for the present focus is that Sarah’s reported TSE beliefs regarding using CLT to develop speaking skills surprised me in some ways. Though she appeared efficacious and demonstrated commitment, her reported TSE beliefs were not as positive as expected.

The other teacher focused on here is Omar, a teacher committed to helping learners overcome difficulties in reading in a village boys’ school in the mountains. I have discussed his developing practical knowledge and motivation more generally in relation to this task elsewhere (Wyatt, 2012, 2013b). His reported TSE beliefs are of interest as they seemed exaggerated.

To recap then, I focus on reported TSE beliefs that appeared either too low or too high (given my initial assessment of the teachers’ capabilities to fulfil particular tasks). This will help me to evaluate how rigorous qualitative research methodology can be used to assess TSE beliefs for degree of fit (my first research question), with a view to supporting teacher development (the second).
My first research method was observation in the natural settings of classrooms. My role, as a 'non-participant observer' (Cohen et al., 2007), involved me in keeping a narrative record of key incidents to explore later through interview. Observations provided evidence of practically-oriented knowledge (Borg, 2006) and could be used to question the affective dimensions of the teachers’ work.

My second research method was the qualitative semi-structured interview, which “is a construction site of knowledge” (Kvale, 1996, p. 42). Most interviews were conducted in schools, immediately after observations. Audio-taped with the teacher’s permission, they started with a post-lesson discussion, during which I stimulated recall (Bailey & Nunan, 1996), using my narrative record to prompt teachers’ interpretations of events. They then continued into a semi-structured phase, with topics identified prior to the interview explored through top-down hierarchical focusing (Tomlinson, 1989), with topics covered through general and then more detailed questions, but not in any set order to allow the interview to flow. These interviews helped me assess the degree of fit of reported TSE beliefs in various ways. As well as exploring practical cognitions influencing behaviour, I could question more formal elements of knowledge by inviting teachers to relate practice to the theory they had been introduced to on the course. I could also elicit TSE beliefs directly by asking questions that began: ‘How confident are you that you can…?’ or ‘Can you…?’

Other methods included the analysis of practically-oriented assignments which included descriptions of classroom interventions (while recognizing that, written with a view to pleasing a discourse community of markers, they needed to be treated cautiously). I also analysed feedback produced by university markers to compare to my own judgements and kept field notes. Using these various methods both together and longitudinally facilitated triangulation (Stake, 1995) and the deep insights this offers.

My analytical procedures were ‘interactive’ and ‘iterative’ (Calderhead & Shorrock, 1997), with data reviewed reflexively many times. I used ‘member checking’ (Stake, 1995), e.g. by discussing an early draft with Omar, and, as noted above, had a critical friend. A ‘template approach’ (Robson, 2002) to data analysis was adopted, with key codes determined by research questions serving as a template, into which coded text segments were placed. These created matrixes I subsequently drew upon when producing case studies characterized by ‘thick description’ (Geertz, 1973) and supported further content analysis (Cohen et al., 2007) as tables summarizing data were created. Data presented in the findings below are labelled as follows, after Borg (1998):

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Type of data</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah = S</td>
<td>Assignment = A</td>
<td>1-8</td>
</tr>
<tr>
<td>Omar = O</td>
<td>Feedback = F</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interview = I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Notes = N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observation = O</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Means of labelling data

So, for example, SI.5 is Sarah’s fifth interview, SA.2 is Sarah’s second assignment, OO.3 is Omar’s third observation, OF.5 feedback on Omar’s fifth assignment. There were 5-6 observations of each teacher throughout the research period and 7-8 interviews. The research was conducted according to strict ethical guidelines. The teachers were volunteers who signed informed consent forms guaranteeing anonymity and the right to withdraw at any time. I organize the findings below by focusing first on the degree of fit of Sarah’s TSE beliefs and then on Omar’s.
Results

Sarah’s TSE Beliefs in Using CLT to Develop Speaking Skills

A Summary of the Goal-directed Task

Early in the BA course, Sarah indicated a firm commitment to using CLT and in particular communicative tasks (CTs) with the lower secondary girls she taught to help develop their speaking skills. CTs, as defined by Cameron (2001), are three-part structures that contain a core communicative activity; this involves learners in interacting orally and with communicative purpose, as they aim to achieve a motivating goal.

There are different models of the CT, with ‘strong’ forms providing the learners with little support as they struggle to draw on their linguistic resources to complete the task and ‘weak’ forms offering more help (Skehan, 1996). Cameron’s (2001) model is of the latter type, highlighting various demands (e.g. linguistic and conceptual) that may need to be supported beforehand. In this model, therefore, the core activity is preceded by preparation activities; a follow-up activity, allowing for extension, completes the task.

CTs such as this have been widely used in English language teaching in Western contexts for many years. However, this is not the case elsewhere, particularly in state schools in Asia (e.g. Carless, 2002; de Segovia & Hardison, 2009), where there are frequently only limited opportunities for learners to practise speaking.

This was also Sarah’s experience in Oman. She recalled grammar-focused lessons from her childhood when she had felt frustration at being unable to speak, but reported she had then taught in the way she had been taught. However, she indicated the BA had then given her fresh ideas, so she had developed the belief it was important to promote speaking opportunities in her classes and adopt a more facilitative, learner-centred style (SI.1, SI.2). Input on CLT was recycled in successive modules: Teaching English to Young Learners (TEYL), Tasks in Language Learning (Tasks), Teaching Speaking and Listening (TS&L), Materials Design and Development (MDD). Module assessments involved her in designing CTs (or in the case of TEYL a communicative activity). I now consider her practical knowledge growth, which will provide criteria for assessing her developing task-specific TSE beliefs.

Sarah’s Developing Practical Knowledge in Relation to the Task

To evaluate Sarah’s developing practical knowledge, I draw on data from observed lessons, interviews and, firstly, assignments. I have analysed these using criteria for communicativeness and the development of speaking skills drawn from sources such as Arnold (2003), Cameron (2001) and Harmer (2001), which were referred to in the BA course content. One criterion, for example (Table 2, overleaf), relates to the creation of a clear realistic context in which language is needed to perform the task. Sarah’s CT for the Tasks assignment only very partially met this; the learners, working in pairs, were each required to ask about the location of two places missing on their map of a town, but were not asked to think about why they needed this information. Her CT for the MDD assignment did appear to meet the criterion, though; the context was that a teenage daughter (of a similar age to the learners) was out shopping when she remembered she had invited friends around and wanted to make an orange cake. How many of the ingredients did she need to buy? She would need to phone home and ask her mother (another student, equipped for the activity with a picture
of a kitchen table showing some of the ingredients). Thus, while both CTs included an
information gap, the second was better contextualized (and also allowed for more speaking
practice, as conversational strategies and follow-up questions were encouraged) (see Wyatt

<table>
<thead>
<tr>
<th>Criteria</th>
<th>TEYL Mar 03</th>
<th>Tasks Oct 03</th>
<th>TS&amp;L May 04</th>
<th>MDD Nov 05</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 There is an information gap.</td>
<td>X</td>
<td>√√</td>
<td>√√</td>
<td>√√</td>
</tr>
<tr>
<td>2 A clear, realistic context is created in which language is needed to perform the task.</td>
<td>X</td>
<td>-</td>
<td>√</td>
<td>√√</td>
</tr>
<tr>
<td>3 The learners are likely to have a desire to interact as the context is related to their authentic communicative needs.</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>√</td>
</tr>
<tr>
<td>4 Input for language acquisition is provided in the way that receptive skills are activated in the setting up.</td>
<td>-</td>
<td>-</td>
<td>√√</td>
<td>√√</td>
</tr>
<tr>
<td>5 Conversational strategies are explicitly supported in the setting up.</td>
<td>X</td>
<td>-</td>
<td>√√</td>
<td>√√</td>
</tr>
<tr>
<td>6 Learners are given control over the language they use to achieve their purpose.</td>
<td>X</td>
<td>X</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>7 Plenty of speaking practice is provided for all learners.</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>√</td>
</tr>
</tbody>
</table>

Key:  
X = The feature is absent.  
- = The feature appears to be present but only to a limited extent.  
√ = The feature is in evidence.  
√√ = The feature is very much in evidence.

Table 2. Sarah’s communicative tasks evaluated for communicativeness

My main finding here, that the tasks Sarah designed for assignments became steadily more communicative, tallies with feedback from markers. For the May 2004 assignment, for example (the first for which she gained an ‘A’ for a first class piece of work), the marker praised her “sound understanding of both the mechanics involved in setting up communicative tasks and the implications of such tasks on the learning of the students”. The feedback continued: “I thought the idea of using a listening to introduce the language was good, especially as your strategy was to get the learners to find the expressions and conversational gambits themselves” (SF.3). My own judgements were similar (Table 2). While this might suggest growth in Sarah’s knowledge, there is the proviso, of course, as noted above, that without observational data, such evidence is suspect (Borg, 2006).

I turn therefore to evidence gained from observing Sarah teach teenagers, which I did three times (my other observations were of her teaching much younger learners). I have evaluated these three lessons (Table 3, overleaf) for evidence of learner-centredness and communicativeness (and thus behaviour consistent with developing practical knowledge in using CLT methodology). For this purpose, I have used criteria based on Harmer (2001) and Ur (1996), sources referred to in the first methodology module, TEYL (see Wyatt [2009] for qualitative descriptions).
Table 3. Sarah’s observed lessons evaluated for learner-centredness and communicativeness

<table>
<thead>
<tr>
<th>Criteria: Does the teacher ...?</th>
<th>10/03</th>
<th>03/04</th>
<th>04/05</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ask probing, focusing questions?</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>2 Listen carefully and adjust input according to the learners’ needs?</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>3 Provide contextually appropriate examples of the language?</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>4 Show consideration for learners’ feelings in terms of error correction?</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>5 Provide for a variety of interaction opportunities, in whole class, closed and open pairwork settings?</td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>6 Use activities that contain an information gap?</td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>7 Give learners control over the language they use to achieve their goals?</td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>8 Introduce conversational strategies?</td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>9 Provide plenty of speaking practice for all learners?</td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
</tbody>
</table>

As Table 3 suggests, the first two lessons, characterized by a friendly manner and appropriate questions, examples and explanations, were in whole class mode throughout, although I felt pair work was possible (and would have included it myself). Indeed, in the first of these lessons (October 2003), Sarah had intended to use a CT. “I made a task really”, she told me after the lesson.

There is interaction between learners and purpose. It involves reading. Each child has a text about a city and they go around asking each other. ‘What is the capital of that country?’ ‘What is the population of that city?’ and ‘What languages do the people speak there?’ but there was no time. But I made a paragraph. I cut it. Everything is ready in my bag (SI.1).

Interestingly, this task is quite similar to the Tasks CT, also developed in October 2003 (Table 2, above), in both its strengths (an information gap) and weaknesses (the context for the use of this language is not really established – why would you walk around asking such questions? Also, ‘closed’ questions, requiring only short answers, are used).

As Table 3 indicates, only the third lesson met criteria for meaningful student-student interaction. This was centred on a CT, which incorporated ‘reasoning gap’ activities (Parrott, 1993), using pictures as stimuli, and an ‘information gap’ drawing on stories spontaneously created by the students they might tell in everyday life. In this, it was as rich, complex and carefully thought-through as later tasks (2004/2005) produced for assignments, such as the one centred on ingredients needed for the orange cake (Table 2, above). This suggests parallel developments in tasks produced for assignments and the classroom, with the 2004/2005 ones better developed.

This analysis is supported by a third research method, interviews. For example, reflecting on the CT she had used in the third observed lesson to overcome shortcomings of the coursebook, Sarah highlighted how appropriate materials had helped the learners “relate this to their experience”; the group work had helped them think and share creatively, retrieving vocabulary and trying “to put it in another context” (SI.6), analysis supported by my own observations of the learners’ engagement, interactions and use of materials (SO.4). Sarah’s reflections thus suggest deepening knowledge. Such growth is also evident in the way she related her rationale for using CTs to language acquisition processes (given she had earlier, rather naively, expected learners to pick up new language as soon as it was introduced [SI.2]):

if today they learn a word then they will able to use this word in a context, in different situations and then they start to develop their language. It is like this, I mean, this happens over time, not in one lesson or two lessons, maybe it takes years… and the main task also is to
Sarah felt the learners would benefit cognitively from engaging in CTs through the meaning-focused interaction this allowed. To investigate this for her own action research, she recorded learner talk during core communicative activities in various lessons throughout 2005 to analyse for the presence of features of authentic (rather than scripted) speech. Finding examples of this speech (e.g. hesitation, repetition and ellipsis) in the transcripts then suggested to Sarah that her learners’ talk, like the discourse of native speakers, provided evidence of the processing of “information under pressure of time” (SI.7), which would facilitate the development of fluency, according to literature she read. Sarah was thus conscious of supporting cognitive development. By introducing conversational strategies and encouraging learners to enjoy themselves while working together (Table 3, above), she was also consciously supporting metacognitive, affective and social dimensions of learning. In short, there is evidence of growth in Sarah’s practical knowledge in using CLT to develop the speaking skills of her learners. I now turn to her task-specific TSE beliefs.

Sarah’s Reported TSE Beliefs

While analysing these reported beliefs (Table 4, overleaf), I realized they fell into three distinct categories, relating to different aspects of the challenge of using CTs to develop speaking skills in this particular context (conceptual demands in planning, physical demands in preparing materials and practical demands in classroom management). In Table 4, I have set Sarah’s reported TSE beliefs in meeting these demands next to her drive to use CTs and her memories of using them; the latter would have provided enactive mastery experiences (Bandura, 1986).

As Table 4 indicates, Sarah’s drive to use CTs was a powerful one, as the modals she uses when she discusses the learners’ need to develop speaking skills, ‘must’ and ‘have to’, suggest; she seems fully committed. Interestingly, too, her memories of using CTs were positive, with affective factors stressed, the learners ‘happy’, liking English, ‘interested’. She thus appeared to have gained powerful enactive mastery experiences (Bandura, 1986). Given these experiences and the growth in practical knowledge reported above, I expected more positive task-specific TSE belief statements than those provided (Table 4). In fact, as the table suggests, there is evidence Sarah’s TSE beliefs regarding the first dimension explored, her planning of CTs, did become more positive; this is consistent with practical knowledge growth reported above, although the starting point was still lower than expected. Initially, it was “very hard” to adapt an activity so that it included the basic elements (11/03). Later, the difficulty was expressed more in terms of fine-tuning: challenging and motivating learners at the same time (02/05). Sarah does not claim expertise (02/05), but, by the end of the research period, indicates that with “hard work and concentration” she can draw upon ideas to create “something new” (10/05).

Sarah remains quite pessimistic, though, about the challenge of using CTs in her context. Throughout the research period, she emphasizes the difficulties faced in preparing materials, notwithstanding development in her design skills on the computer (02/05), which she had not used for this purpose before (SI.5). However, her focus on the problem shifts more to a factor outside her control, the school’s photocopier (10/05). Sarah also emphasizes the difficulties involved in organizing large classes for group work and pair work, pinpointing as problematic arrangements she has to make for seating learners (11/03). The problem remains, but her focus shifts to a factor outside her control, the preferences of teachers of
<table>
<thead>
<tr>
<th>Date</th>
<th>Drive to use CTs</th>
<th>Reported TSE beliefs regarding the challenge of using CTs (in response to can you…? questions)</th>
<th>Memories of using CTs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Conceptual demands (planning)</td>
<td>Physical demands (preparation of materials)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical demands (classroom management)</td>
<td></td>
</tr>
<tr>
<td>10/03</td>
<td>The children, they must talk … they have to talk in English, they have to express their ideas</td>
<td>It’s very hard for me and I have to use a lot of papers and everything.</td>
<td>When I did this with my class, I felt they were really happy. They like English, not like before</td>
</tr>
<tr>
<td>11/03</td>
<td></td>
<td>It’s very hard you know to adapt an activity, to find the communicative purpose, to find the meaningful context…</td>
<td></td>
</tr>
<tr>
<td>02/05</td>
<td>At the end, they have to speak the language as a native speaker without thinking…</td>
<td>I am not an expert. I try to think of something, but I think maybe it will not work. Maybe it will be difficult for them … Sometimes you find it difficult to create something which challenges children and motivates them at the same time.</td>
<td></td>
</tr>
<tr>
<td>10/05</td>
<td></td>
<td>When I plan I can see which part, which step is suitable for them, which part might be difficult and how I’m going to adapt it or create something new. I mean, I have some new ideas, which make it more exciting… When you are adapting something, you are not adapting it at once like magic and suddenly it will perfect. It requires hard work and concentration. The process of analyzing and reviewing needs a clear mind, but I have a lot of ideas now.</td>
<td>We have a photocopier. It is not always available, sometimes it is not working, most of the time it is not working. Maybe it will work once or twice a month, then it will stop. Maybe they don’t have ink or they need money. It’s a problem… In this situation, we have 45 students. I mean all the teachers don’t have the same ideas. If I want to keep my students in a group, other teachers say ‘No please, we don’t want them in groups!’ My learners became more interested in English, they like English more and they like to talk about themselves because before they were talking only about characters in the book. They were not relating things to their lives. After using these kinds of communicative tasks they tried to express their own ideas, tried to speak about their experience and shared with their friends…</td>
</tr>
</tbody>
</table>
other subjects (10/05). This shift might suggest that, while she was still pessimistic, perhaps defensively so (Wolters, 2003), she may have become more efficacious about the aspects of preparing and teaching she had control over.

However, the impression of defensive pessimism is reinforced when I consider data from other sources: interviews and observations. When I visited Sarah’s school in November 2003, for example, she had just finished a class. The photocopier had not been working, but, rather than ditching the communicative activity planned, she had written the task instructions on the whiteboard and engaged the learners in a speaking activity (SI.2); so she had other strategies. Regarding the grouping of learners, I had observed her set up the classroom quickly and efficiently for this (SO.4, SO.5) and, indeed, provided feedback on this aspect of her classroom management in discussions following lessons (SI.6, SI.7). I thus provided the interactive support Bandura (1986) terms ‘verbal persuasion’ while eliciting her reflections. This support, together with the enactive mastery experiences themselves, could have led to the development of more positive TSE beliefs, with the help of reflection, according to Bandura’s (1986) theory. Sarah did reflect. I have presented evidence elsewhere that she approached her work in a reflective way (e.g. Wyatt, 2009, 2013a). Nevertheless, given an apparent gap between practical knowledge and reported TSE beliefs, perhaps ‘defensive pessimism’ (Wolters, 2003) may have been significant in influencing the way she expressed beliefs.

An alternative explanation is that contextual factors played a greater role in shaping her cognitions than I allowed for. As Kennedy (2010) reports, such under-estimation of contextual factors, such as physical space, materials, time, is frequent in educational research into teacher characteristics. In the face of contextual challenges, it is possible Sarah felt less efficacious.

For further insights, Sarah’s reported TSE beliefs can also be examined in relation to broader motivational theories. As noted above, Sarah had a strong drive to use CLT methodology to develop speaking skills, demonstrating concern for her learners. In engaging in this, she was able to behave in an autonomous way in designing and using CTs; she was not rigidly bound to the course book. In Ryan and Deci’s (2000) Self-Determination Theory, autonomy is key to intrinsically-motivated behaviour.

Also crucial to such behaviour is ‘self-competence’ (Ryan & Deci, 2000), which can be seen as operating at different levels. Sarah had positive global self-efficacy beliefs in teaching teenagers. She reported she generally felt confident: “in the way I give them information, the way I teach them, the way I explain the things to them” (SI.2). She also had positive self-esteem; one of her younger colleagues had been her student. “I remember all the things that you taught”, this colleague told her. “I feel proud”, Sarah reported, “when I hear my students talking like this” (SI.2). It is possible positive global self-efficacy beliefs in teaching teenagers may have protected Sarah from task-specific self-efficacy doubts (Wheatley, 2002) to some extent, e.g. when first planning CTs, which she found conceptually challenging (Table 4, above). While she reported this was “very hard” (SI.2), she seemed to experience no fear, as she did when asked to teach much younger learners (Wyatt, 2013a).

Sarah’s complaints about the photocopier and other teachers’ preferences for organizing the learners in rows can also be seen in light of Ryan and Deci’s (2000) theory as external constraints that threatened her autonomy to act in an intrinsically-motivated way. However, they did not stop her intrinsically-motivated behaviour. Sarah seemed to act efficaciously, even if she expressed herself more cautiously. Also, as I have indicated elsewhere (Wyatt, 2013a), she appeared to hold an incremental view of her own learning potential (Dweck, 2000); she believed she could improve. Sarah’s reported TSE beliefs need to be understood in relation to her behaviour, the context and other cognitions. I now turn to the second case, that of Omar.
Omar’s TSE Beliefs in Helping Learners Overcome Difficulties in Reading

A Summary of the Goal-directed Task

In the first year of the BA course, Omar, who had just transferred from one village boys’ school in the mountains to another, was concerned about his Grade 7 learners’ lack of reading skills. This was the highest level he had ever taught and he wished to help.

Relevant input on developing initial literacy and reading skills was provided through the BA course. This was framed by the understanding that the affective dimensions of language learning are always a concern (Krashen, 1982). Key concepts introduced included the following: a) a print-rich environment can stimulate the development of initial literacy (Cameron, 1991); b) an interactive approach in the classroom to the teaching of reading might be beneficial to children. In such an approach, top-down strategies (e.g. the eliciting of background knowledge) might be combined with bottom-up strategies (e.g. phonics), according to the context-specific needs of the learners (Cameron, 2001). So methods associated with ‘language experience’, the use of stories, ‘look and say’ and phonics (Wray & Medwell, 1991) might be drawn upon eclectically. Interactive techniques might be used in the ‘shared reading’ (Wells, 1986) of big books, with children, perhaps sitting in a semi-circle around the teacher, participating by predicting, guessing, repeating phrases, reading words and focusing on initial letters. Learners might therefore be encouraged to decode print, use contextual and cotextual clues, break words down to read the individual parts, draw on visual memory and use knowledge of the relationships between sounds and spelling, while engaging with the stories (Cameron, 2001). It was suggested that, for formative assessment, through focusing on the miscues (Arnold, 1982) of a child reading aloud individually, a teacher might gain valuable diagnostic information (Cameron, 2001). However, it was stressed that this should not be done as a public activity. Getting learners in turn to read aloud around the class as a practice activity (known as ‘chain reading’ in Oman) was cautioned against as a dreary, demotivating, over-used activity lacking in pedagogical value (Nuttall, 1996).

Input later in the course focused on work with more skilled readers and the development of sub-skills, such as gist reading, skimming and scanning, search reading and careful reading (Urquhart & Weir, 1998). There was also input on extensive reading, setting up programmes to support this and the use of response activities (rather than just comprehension questions) to reinforce the idea that reading can be enjoyable (Day & Bamford, 1998).

Omar’s opportunities to develop practical knowledge in helping learners overcome problems with reading were supported in the first half of the course by practical assignments. For example, for a Stories module, he designed a big book, used it in class employing shared reading techniques and evaluated the lesson (OA.2). For an Initial Literacy module, he conducted a miscue analysis (OA.3).

In his research proposal, submitted in November 2004, Omar chose to focus for his dissertation on the biggest problems his Grade 7 learners faced in reading aloud and the help he could provide through ‘chain reading’. The Grade 7 teachers’ book describes ‘chain reading’ as potentially “a slow, difficult and thus demotivating process” from which understanding of the text cannot necessarily be inferred (ELCD 1998, p. 18). Omar acknowledged this, but felt chain reading may nevertheless be the solution. He dismissed alternative techniques used to support initial literacy, such as ‘look and say’, based, he noted, “on the conception that pupils see words as whole-patterns”. Not only did this technique...
“cause boredom”, but it did not help with “unfamiliar words… (leaving) many pupils unable to work on their own”. Chain reading, incorporating a focus on phonics, was the solution, he believed (OA.4). The marker commented, however: “It is interesting that the teacher’s book discourages reading aloud – you need to produce a strong argument to state that reading aloud should be used” (OF.4).

As Omar’s regional tutor, I felt I had a responsibility to challenge means-ends beliefs (Wheatley, 2005) in the value of chain reading as a primary strategy for overcoming problems in reading as well as TSE beliefs in his ability to solve his learners’ problems in this way. I felt I needed to induce self-efficacy doubts (Wheatley, 2002) to help him re-examine his cognitions. I now report on Omar’s practical knowledge growth, which will provide criteria for assessing his TSE beliefs.

Omar’s Developing Practical Knowledge in Relation to the Task

To evaluate Omar’s developing practical knowledge, I draw on data from observed lessons, interviews and assignments, which I have previously (Wyatt, 2012) subjected to ‘thick description’ (Geertz 1973) and summarize here. My tabular analysis (Table 5, overleaf) uses criteria embedded in the course design and introduced above.

As Table 5 indicates, Omar’s development was mixed. Data from interviews and assignments suggest course content was only partially assimilated. This seems true of his use of miscue analysis to identify learners’ strategies and diagnose their problems (C in Table 5), his use of shared reading to support their skills at different levels (A), and his encouragement of extensive reading (G-I). Data from observations also indicate a partial assimilation of BA course content. While Omar missed an opportunity to develop gist reading in one lesson (F), he activated schemata in another (E), improving the teachers’ book procedures in the process, and broke words down (D) in another two. So, there was some support for cognitive and metacognitive learning processes (Oxford, 1989). The biggest puzzle was his neglect of the affective filter (B). Belief in and adherence to traditional methods seemed to override concerns for learners’ feelings, though, by setting up the English Club, he may have catered to affective and social dimensions of the learners’ growth to some extent outside the regular classroom. So there is some limited evidence of practical knowledge growth. In light of this analysis, I now turn to Omar’s TSE beliefs.
A  Is there evidence of growth in Omar’s ability to: Use stories to develop knowledge of the world and of texts, imagination, motivation, predictive and social skills, knowledge of the word?
To some extent. In a December 2003 Stories assignment (OA.2), Omar reported behaviour consistent with these areas of development. However, when interviewed in February 2005, he seemed to have forgotten, until reminded, that shared reading could develop knowledge of the world (OL.5). He later articulated the view that shared reading could support the teaching of phonics (OA.5), but there is no observational data of him attempting this. While I did observe him encourage imagination and predictive skills in a limited way in an April 2004 use of a course book narrative (OO.3), afterwards, when I suggested ways of being more creative still, I met with some resistance; Omar was wary of adapting as the learners might be assessed on course content (OI.3). I argued he could nevertheless make the creative use of stories a more central part of his work, but he felt constrained to follow the set curriculum (OI.3, OI.7). A sense of obligation to conform to expectations, including those of his inspector, appeared to limit opportunities to experiment.

B  Consider the affective side of learning when planning reading activities in class?
Not really. Omar recognized that chain reading created fear (OI.5, OI.6), but persisted in using it, even though he had been the victim of strict methods as a child (OA.3) and saw himself as a father figure (OI.2). I am not sure if I witnessed fear in any of his classes, although he did shout at a boy “as a joke” in one lesson to demonstrate the meaning of ‘shout’ (OO.3). He could have lowered the affective filter in a number of ways, by, for example, not insisting that learners stand to read (OO.6), as was required when he employed chain reading (OI.7). He could also have used more learner-centred error correction techniques. He tended to interrupt learners, firmly but not rudely, providing instant and public correction of their pronunciation (OO.5). There was also an absence of obvious warmth or intimacy in the six lessons I observed, even though class size was generally small.

C  Conduct miscue analysis to identify strategies used by learners?
For his Initial Literacy assignment, Omar conducted a miscue analysis (OA.3), but partially misinterpreted the results (OF.3). This calls into question his ability to diagnose his learners’ difficulties in reading. Unfortunately, his dissertation (OA.5) was also flawed; the marker was critical of the data analysis (OF.5).

D  Help learners decode print, using context and cotext, breaking words down, drawing on visual memory and knowledge of grapho-phonemic correspondence?
To some extent. Omar was able to help learners focus on initial letters and whole word shapes in April 2004 (OO.3). I first saw him break words down, a strategy introduced in a day release session (ON.1), a year later (OO.5); he used the same procedure again (OO.6). I never saw him encourage learners to use contextual clues to tackle vocabulary, although this might have helped them (OO.4).

E  Activate schemata before learners interact with a text?
This was an area in which Omar did develop, supported by the third-year module: Teaching Reading and Writing. In an observed lesson in September 2005, he used pre-reading activities that helped learners draw on background knowledge (OO.6) and explained the rationale for this afterwards (OL.7).

F  Develop reading sub-skills, such as gist reading, skimming and scanning, search reading, careful reading?
There was no real evidence of development in this area. In an October 2004 lesson, I felt Omar could have tried to develop gist reading, but instead he focused on supporting vocabulary (OO.4).

G  Help make the school a more literate environment?
Yes, and Omar deserves credit for this. When I visited his school in April 2005, he was creating posters to encourage environmental literacy (OI.6). Later, he started an English club, stocking a spare room in the school with “a lot of books, stories, dictionaries, audio and video cassettes and many other teaching aids”. He used the club in free lessons, engaging learners in making posters and wall magazines and in producing simple short stories, aiming “to change the poor environment of reading in the school” (OA.5).

H  Encourage extensive reading by organizing a library of books to borrow?
Yes, and Omar deserves credit for this. He was encouraging learners to borrow books in April 2005 (OI.6).

I  Motivate learners to read extensively through activities that allow them to respond personally, thus reinforcing the idea that reading is enjoyable?
Unfortunately, the activities Omar set were quite traditional, focusing on comprehension and grammar (OL.8), so neither very personal nor motivating. Advice I had offered in an April 2005 day release session (ON.1) had not been adopted.

Table 5. Omar’s reported and observed practices related to developing reading skills evaluated against various criteria
Omar’s reported TSE beliefs

While analysing these reported beliefs (see Table 6, overleaf), I realized that two crucial types of beliefs Omar held were those about his ability to innovate (as he was working with a curriculum being phased out that was open to adaptation) and those about specific methodological decisions related to teaching reading. In the table below, I have set Omar’s reported TSE beliefs next to his drive to help his learners develop reading skills and his memories of intervening to help them.

As Table 6 indicates, Omar had a powerful drive to help his learners, as Sarah did. However, there are some important differences. Firstly, although it appears to have fluctuated, Omar’s sense of autonomy (Ryan & Deci, 2000) was weaker, as he felt constrained by the inspector’s expectations (Table 6). This may have been partly because he was new to his school and so less established there. He was conscious of the need to follow procedures. However, Omar made a distinction between supporting reading inside and outside the classroom and seems to have been more autonomous outside once his English Club was established (Table 6).

A second important difference is that while Sarah gained positive enactive mastery experiences in using CTs (her preferred methodology), Omar reported no such positive experiences in using chain reading (Table 6). Indeed, he persisted with chain reading without once highlighting any evidence of learners improving as a result of it (and thus had no apparent justification for agent-ends beliefs). He had powerful means-ends beliefs, though, in the value of chain reading (he believed it worked), so that he planned to increase the amount of it he used (OA.4). He also had powerful agent-means beliefs, in that he believed he was skilful in using chain reading (OI.5) (Table 6). Since chain reading is thought to have little pedagogical value (Nuttall, 1996), Omar appeared to have a dangerous concoction of beliefs I felt might inhibit reflection on and learning from experience and act as a filter to new input. Accordingly, given my responsibility to support Omar’s learning, I felt it crucial to induce self-efficacy doubts (Wheatley, 2002); I tried to do this in a February 2005 tutorial by engaging him in first general questions, as part of top-down hierarchical focusing (Tomlinson, 1989), such as: “What are the advantages and disadvantages of chain reading?” “What are the differences between shared reading and chain reading?” (OI.5), before I probed for details. I wanted Omar to consider a range of strategies, reflect more deeply on his practices and consider the affective dimensions of his learners’ classroom reading experiences. His experiences of shared reading had been positive, as Table 6 reveals, but perhaps too limited in frequency to have had much impact on his practical knowledge.

There were some changes in the last year of the course. There was more of an acceptance of alternative methods. Omar’s position in November 2004 and February 2005 was quite uncompromising, with chain reading ‘the’ answer, his language seemed to indicate. By September 2005, however, he was more relaxed about using chain reading alongside other methods. “It depends”, he said several times, “if I’m teaching … if there’s a story… I may change… or I may… if I feel they need…” (OI.7). Although a ‘social desirability’ response bias (Collins et al., 2005) cannot be discounted, Omar’s language choice here, possibly influenced by input on hedging, suggests flexibility and open-mindedness. It is possible, therefore, that, while Omar never discussed self-doubt explicitly with regard to teaching methodology, he may nevertheless have reflected, in so doing perhaps questioning a stance that might have inhibited learning. Therefore, when he reported he had “lots of strategies”, including “new techniques” (Table 6) as the basis for more positive TSE beliefs, this claim may have been partially justified.
<table>
<thead>
<tr>
<th>Stage in the course</th>
<th>Drive to help his learners</th>
<th>Reported TSE beliefs regarding dimensions of the task (those reported in interviews were in response to ‘can you...?’ questions)</th>
<th>Omar’s memories of intervening to help</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Adapting the syllabus</td>
<td>Making methodological decisions</td>
</tr>
<tr>
<td>2003</td>
<td>I’m working if they are here or not. If the inspector comes or not, I’m working. I’m trying. It’s the same class, the same work I did... I’m not working for the inspector. I’m working really to improve myself (OI.2).</td>
<td>Many years before I was just following the teachers’ book … our inspectors told us you have to follow the teachers’ book, letter by letter (OI.1). Now I’m not following the teachers’ book. I can change anything I want to change (OI.2)</td>
<td>I asked the pupils to read sentences on the board aloud individually… six of them couldn’t read any word… one of them replied: “we are failures, teacher” (OA.1). They enjoyed the story… actively participating in meaningful use of new language (OA.2).</td>
</tr>
<tr>
<td>2004</td>
<td>If the inspector comes, I wouldn’t change anything. I would teach it as it is (OI.3).</td>
<td>Using chain reading, we can help weaker pupils by saying the sound of the initial consonant of the difficult word. Also we can encourage and motivate them by getting them to read easier sentences… (OA.4).</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Even after I finish my BA, I will not stop my progress, Inshallah. I will try to improve myself and my pupils … if I finish my dissertation, that doesn’t mean that I will stop researching or looking at my pupils and how to improve them. I will try to find anything (I can), because this is my work (OI.7).</td>
<td>I can change (the course book narrative) but, as I told you before, we should teach it as it is here … we must teach all the things (OI.7). When I use chain reading with weaker pupils, I don’t ask them to read the whole sentence. I’ll always motivate them... (OL5). We have lots of strategies to help our pupils, lots and lots (OL6). If there’s a story outside the classroom, I can choose any names, I can choose any vocabulary, I can make it a story easily (OL7). Sure (I can do it better), because, as I told you, I discovered their weaknesses and I discovered new techniques, so that I can help them (OI.7).</td>
<td>For example, today we’ll have reading, some of the pupils make themselves sick, they can’t stand up and they can’t read (OL5). If we have stories, they will like the story… shy pupils will also talk (OL5). They avoid reading aloud because they are afraid to make mistakes (OL6). Pupils told me they enjoyed (the English Club): their reading, speaking, listening and writing skills improved (OA.5).</td>
</tr>
</tbody>
</table>

Table 6: Omar’s reported TSE beliefs with regard to overcoming difficulties in reading
I say ‘partially’, since Omar also believed that one of the reasons he was better at helping his learners was because he had “discovered their weaknesses” (OI.7), and I am unsure about this, as was the marker of his dissertation (OF.5). Clearly, Omar did develop, but his development seemed limited, and his reported TSE beliefs did not seem fully justified.

Discussion

I now address my research questions, considering first how the use of qualitative case study research methodology helped identify and explain apparent lack of fit in teachers’ reported self-efficacy beliefs. This is not straightforward and, introducing a note of caution here, I should first acknowledge challenges in using qualitative semi-structured interviews to elicit TSE beliefs. For example, while open questions designed to capture the forward-looking capability that is central to the construct (Bandura, 1997) generally use ‘can you…?’ structures, responses to such questions, accompanied by intonation and body language that also provide clues, are likely to contain a variety of language forms, particularly in the context of an academic course, when hedging (Hyland, 1994) has been introduced. Furthermore, the beliefs elicited through ‘can you…?’ questions need disentangling. They may include both agent-means and agent-ends TSE beliefs. Global self-efficacy beliefs, reflections on self-esteem and the means-ends beliefs that relate to outcomes may also be produced in response to such questions. So reflexivity during interpretation is vital.

To assess the beliefs elicited for degree of fit, there is a need for rigorous qualitative procedures. In this study, these included establishing clear criteria against which TSE beliefs could be assessed. Based on the understanding that teachers’ knowledge is primarily practical with formal elements (Borg, 2006), these criteria were extrapolated from the course. I also used various kinds of triangulation (Stake, 1995): methodological triangulation to compare the teachers’ words with their actions or with their written plans, reports and reflections; data source triangulation to compare changes in reported cognitions or observed behaviour over time; investigator triangulation to compare markers’ judgements of assignments with my own. Also crucial to my research were techniques of discourse analysis (Silverman, 2000) such as focusing on choice of modals, ‘thick description’ (Geertz, 1973) and techniques to reduce data through content analysis such as summarizing and rating (Cohen et al., 2007).

These analytical procedures provided insights into the complex issue of apparent lack of fit in teachers’ reported TSE beliefs. For example, I considered whether ‘defensive pessimism’ (Wolters, 2003) or a ‘social desirability’ response bias (Collins et al., 2005) might explain any part of the puzzle in the two cases examined here. While theorizing, I also drew upon a broader motivational framework, Ryan and Deci’s (2000) Self-Determination Theory, reflecting on the relationship between TSE beliefs and autonomy in influencing intrinsically-motivated behaviour and the role of external constraints.

Regarding my second research question, this analysis facilitated on-going teacher development from a constructivist perspective in several ways. With Omar, I tried to induce self-efficacy doubts (Wheatley, 2002) so that he would be willing to consider other strategies besides chain reading. With Sarah, I provided interactive ‘support’ (Tschannen-Moran & Woolfolk Hoy, 2007) or, as Bandura (1986) calls it, ‘verbal persuasion’, in post-lesson discussions. With both teachers, my mentoring focused on the development of reflective skills, such as noticing, reviewing and problem-solving (Malderez & Bodóczky, 1999), skills which, I believe, are required to make sense of efficacy-building experiences and are thus crucial to the development of more fitting TSE beliefs. By acting on my findings in this way,
in my role as mentor, I believe I was able to achieve a degree of communicative and pragmatic validation (Kvale, 1996), supporting the goals of democratic teaching (Wheatley, 2005).

However, there were also limits as to what I could achieve. In the case of Omar, there were powerful means-ends beliefs in the value of chain reading I found difficult to impact. When I reviewed the BA course content, I identified ways of doing more consciousness-raising during the Initial Literacy module. Together with colleagues, I also recommended changes to the assessment (miscue analysis was problematic) and improvements were made for the following cohort. So the research I conducted into TSE beliefs did lead to useful outcomes, although, as Wheatley (2005) reminds us, this is not always the case.

Conclusions

As noted in the introduction above, historically research into TSE beliefs has been dogged by confusion. For example, there has been an assumption, challenged by Wheatley (2002, 2005), that positive TSE beliefs are invariably good. Wheatley’s argument that positive TSE beliefs can sometimes be problematic is supported by this study. If Omar’s declared agent-means, means-ends and agent-ends beliefs were taken at face value, we could conclude: “Great! An efficacious teacher we do not need to worry about! Should he be made exempt from further training?” Such an outcome would not help Omar’s development or his learners.

A related flaw in the quantitative literature is the stigma attached to expressing less than positive TSE beliefs. Indeed, teachers doing this may be more likely to leave the profession early, according to quantitative researchers who have assessed these beliefs globally, e.g. Tschannen-Moran and Woolfolk Hoy (2007). If this stigma should become widely known, teachers responding to Likert-scale items might feel obliged to fake their answers (Wheatley, 2005). Indeed, if Sarah’s caution, perhaps ‘defensive pessimism’ (Wolters, 2003), rather than her efficacious teaching behaviour was taken as a yardstick, then, in some educational environments, she might be screened out of professional development programmes, one of the highly questionable uses of this line of inquiry cited by Wheatley (2005). In Sarah’s case, such an outcome based on this prejudice would have been absurd, as she was committed to principled educational change.

There is a powerful argument then for the use of interpretive research to explore the meanings embedded in TSE belief statements. Qualitative research is required, not that this is in any way infallible. It is necessary to explore precisely “what teachers’ perceived self-efficacy interpretations mean to them” (Wheatley, 2005, p. 761) by exploring their cognitions while keeping in mind a working definition of TSE beliefs, e.g. as presented above (Wyatt, 2010). Milner and Woolfolk Hoy (2003), for example, do not quite manage this. In a case study of an African-American schoolteacher, they describe her ‘lofty’ goal, ‘changing or demystifying preconceived negative (ethnic) stereotypes’, as a self-efficacy task they conclude it was impossible for her to achieve (p. 273). This then represents a very global understanding of TSE beliefs.
However, conversely, this study also demonstrates the value of qualitative case study research methods as these allow us to understand the case. Milner and Woolfolk Hoy (2003) provide ‘thick description’ (Geertz, 1973) and from this it appears the teacher’s task could have been better defined and understood as: ‘developing an appreciation for English Literature while combating preconceived negative stereotypes about African-Americans in a predominantly white Midwestern American high school’. This is the task explored in relation to TSE beliefs and there is powerful observational evidence in Milner and Woolfolk Hoy’s (2003) account of the teacher (Dr Wilson) succeeding in this: we witness deep engagement on the part of the learners, and solace as Dr Wilson encourages her class to appreciate an Alice Walker story in relation to her own lived experience. This observational evidence is triangulated with the teacher’s reflections afterwards, when she identifies the learning that took place in this and a previous lesson, expressing positive TSE beliefs that appear well-founded. These positive TSE beliefs, therefore, appear to protect her from an unfavourable context.

This brief analysis of Milner and Woolfolk Hoy’s (2003) study further demonstrates the value, therefore, of ‘thick description’ (Geertz, 1973) and triangulation (Stake, 1995) in this line of enquiry. However, it also exemplifies the problems that can arise from the lack of a clear task-specific definition of TSE beliefs. If such beliefs are misconceptualized as relating to ‘lofty goals’, this does not support the efforts of teacher educators/researchers to make a difference. It is worth stressing, as noted above, that such beliefs need assessing at ‘microanalytical’ levels (Pajares, 1996).

What are the implications, then, for qualitative research into TSE beliefs? Crucially, the richness and complexity of each individual case needs to be explored. TSE belief statements are made in context and in relation to other cognitions. Those beliefs that might be focused on in a qualitative study might thus emerge from an in-depth investigation exploring a teacher’s concerns, e.g. as in Mulholland and Wallace’s (2001) focus on a beginning teacher’s struggle to use group work in a ‘hands-on’ way in elementary science lessons or Wyatt’s (2010) focus on an English teacher’s efforts to use group work to support young learners. If the research is to be meaningful, it seems crucial to explore issues of relevance to teachers’ own unique professional concerns (Pajares, 1992, p. 327).

So, research into TSE beliefs needs to focus on both the context- and task-specific. It also needs to recognise the complexity of teachers’ work by considering valued outcomes of education (Wheatley, 2005), which include the achievement of cognitive, metacognitive, affective and social process objectives, as suggested in Wyatt’s (2010) definition and used in the analysis above of Sarah’s and Omar’s TSE beliefs.

Once we have a clearly defined context-specific task to explore, qualitative methods, including semi-structured interviews and classroom observations, are needed to examine the basis of TSE belief statements. Do they seem justified? Criteria related to teacher knowledge are required for this, as discussed above. It is also necessary to determine the precise nature of the beliefs (are they agent-means, means-ends or agent-ends?), as this will determine the nature of the constructivist teacher education intervention (e.g. perhaps supporting the development of practical teaching skills if agent-means beliefs seem low or raising theoretical awareness if means-ends beliefs seem unjustifiably high). As well as charting how TSE beliefs change over time and exploring the relationship between TSE beliefs and other cognitions, qualitative research methods are vital for these purposes.
There is much we still do not know. For example, how effective are long-term continuing teacher education strategies in helping teachers develop more fitting TSE beliefs? A limitation of this study is that, while this research was longitudinal, data-gathering, apart from limited ‘member checking’ (Stake, 1995), was concluded at the end of the BA course (when I transferred to another region). I am left wondering, for example, how Omar changed further. Once he had reflected more fully on the fairly intensive course input, did he subsequently learn to use evidence of learning outcomes (his learners’ fear of reading aloud and their lack of ability to do so) to question agent-ends beliefs? Did he subsequently reflect on input challenging means-ends beliefs in the power of ‘chain reading’? If so, did he modify his teaching behaviour or stay with what was comfortable to him? Qualitative research, building on Wheatley’s (2005) pioneering work and addressing issues raised in this article, is needed to address such questions.

Such research need not, like many quantitative studies, be left in the hands of remote university professors. Rather, its longitudinal, qualitative, in-depth, small-scale, action-research nature might make it a more appropriate undertaking for constructivist in-service teacher educators based in schools or working within school districts with clusters of teachers. Self-study research might also be an appropriate method to utilize.

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