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**Control Beliefs of Teacher Educators regarding their Research Engagement**

**Abstract**

Strong evidence has emerged that teacher educators (TEs) should be directly and actively engaged in the research process. Despite this, relatively low levels of research activity have been observed. In 2014, the British Educational Research Association (BERA) called for a national strategy to embed research-informed practice into teacher education. Previous research has revealed that TEs encounter several barriers to engaging in research. This study aimed to provide a current and detailed account of perceptions of control and ability to engage in research in a sample of TEs based at a new university in England, using the framework of the theory of planned behaviour. Semi-structured interviews were conducted with 16 TEs to elicit control beliefs underlying research engagement. Beliefs mentioned by at least 25% of the sample were defined as accessible beliefs and were retained for further qualitative analysis. Interpretative phenomenological analysis revealed seven higher-order control factors that influenced the motivation to engage in research. Specifically, these comprised a lack of time, insufficient mentoring, limited opportunities for collaboration, the nature of initial teacher education, changes in the faculty, various feelings (mostly negative) and inflexible research procedures. These accessible beliefs can be targeted by faculties of education to increase research engagement. In future research we will collect quantitative data about these beliefs from a larger sample of TEs. Empirical relationships between the control beliefs and intention to engage in research and actual research engagement will be investigated, which will allow evidence-based interventions, rooted in the qualitative data, to be developed.

*Keywords:* Teacher educators, research engagement, control beliefs, belief elicitation

### **Introduction**

Due to relatively low levels of research activity taking place in higher education (HE) faculties of education in the UK (Murray et al., 2009), there is a deep concern that teacher education will become separated from its research base, inhibiting both the professional development of teacher educators (TEs) and student learning (Munn, 2008; Murray et al., 2009; Tanner & Davies, 2009). TEs have distinct identities and expertise; they are typically recruited to the role based on their classroom and school experience and despite not usually holding a formal research qualification (i.e., a doctorate), are expected to become research-active once in post (Griffiths, Thompson, & Hryniewicz, 2010). Our understanding of their response to this expectation and of their views about engaging in research, is limited (Borg & Alshumaimeri, 2012; Murray et al., 2009). This is an issue of contemporary relevance and can directly inform teacher education practice (Murray et al., 2009). In this study, we explored the accessible beliefs of TEs, based at a new university in England and who did not hold a doctorate, regarding their perceptions of control over the decision whether to engage in research as part of their role, with a view to modifying these beliefs and increasing research engagement. The research provides a timely insight into the factors underlying motivation when TEs are under increased pressure to engage in research as part of the Research Excellence Framework (REF) exercise, in which HE institutions in England are assessed on research quality and obtain funding based on their rating.

### **Background**

Effective teaching practices should be research-informed, and over the last two decades, strong evidence has emerged that TEs, working on initial teacher education (ITE) courses, need to be directly and actively engaged in the research process (British Educational Research Association, BERA, 2014a, 2014b; Cochran-Smith, 2005; Furlong, 2013; Menter & Murray, 2009; Munn, 2008; Murray, 1998; Murray et al., 2009; Tack & Vanderlinde, 2014;

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Tanner & Davies, 2009). That is, as well as being consumers of research (i.e., keeping up to date with the latest developments in their subject), there is a requirement for TEs to be *producers* of research (Smith, 2011), which means having the necessary capacity, motivation, confidence and opportunity to do so (Furlong, 2014). Indeed, engagement in research by academic staff is central to the work of a university (Furlong, 2013). There has also been similar dialogue about the need for teachers to become researchers, including the vision presented by BERA of a research-rich school culture in which clusters of schools collaborate and teachers and school senior leaders work with researchers based in faculties and departments of education (BERA, 2014a). This developing discourse within the school sector may bestow an additional pressure on HE-based TEs to develop a research agenda to avoid feeling relatively research-incompetent compared to both their school- and HE-based colleagues.

Research engagement allows TEs to investigate the effectiveness of their practice (BERA, 2014). Further, staff with professional classroom experience can offer unique insight and knowledge which is of great value to applied educational research (Davies & Salisbury, 2008) and has the potential to result in maximum impact (Ellis, McNicholl, Blake, & McNally, 2014). A research-engaged profession of TEs will be highly beneficial for a range of learner outcomes (Furlong, 2014). Despite the array of advantages, relatively low levels of research activity have been observed among TEs working in teaching-intensive faculties of education in the UK (Ellis et al., 2014; Furlong, 2013; Murray et al., 2009). In 2014, BERA called for a national strategy to embed research-informed practice into teacher education (BERA, 2014).

### **Teacher Education in England**

Teacher training in England was historically delivered in independent teacher training colleges. Over time, the colleges eventually became absorbed by polytechnics, HE

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institutions or universities. Specifically, in 1992, all polytechnics acquired university status after the passing of the Further and Higher Education Act. This was followed by a change in criteria for the award of university title in the 21<sup>st</sup> century which led to many former HE colleges achieving university status in a second wave of “new” universities (which is the collective term for all post-1992 universities). Old, or pre-1992, universities had university status before the Act came into force. Traditionally then, the focus in faculties or departments of education within new universities was on ITE, whereas old universities were in general more research-intensive (Department for Business, Innovation and Skills [BIS], 2010). More recently, such research-intensive universities employ an increasing number of staff on teaching-only contracts to allow their research-focused colleagues more time to conduct and publish from their research (Bamber, Allen-Collinson, & McCormack, 2017). As a result, the quality of research produced in old universities continues to outperform that of new universities (Boliver, 2015; Hewitt-Dundas, 2012).

An additional but key pressure which has been placed on academics working in HE in England is the requirement to conduct and publish high-quality research as part of the REF exercise. This involves a process of expert review, conducted every six-seven years, in which the quality of research taking place in HE institutions is assessed and results used to inform the selective allocation of research funding from the Higher Education Funding Council for England. The forthcoming REF, due to be implemented in 2021, requires that all staff with a significant responsibility for research, which in many cases defines academic staff, are entered into this exercise. The culture of many faculties of education, in new universities in particular, has had to adjust accordingly to the expectation that all TEs should be engaged in educational research.

It is also worth mentioning that in 2012, a new programme of ITE was introduced by the UK government which offered the opportunity for trainees to follow a fully school-based

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ITE programme, as opposed to ITE being delivered solely in HE institutions. This move has meant that TEs are working within a highly competitive environment in which they have to compete for trainees and school placements with other HE providers, SCITTs (School Centred Initial Teacher Training) and Teaching School Alliances (TSAs). This has meant that the professional/partnership aspects of the TE role may take precedence which may affect the perspectives and self-views of TEs. The diversification of ITE has also increased pressure on the work of TEs in terms of supporting staff in TSAs to become teacher-researchers (Childs, 2013). This function can only be facilitated by TEs who are qualified to do so. The pressure to perform as a TE in the competitive space of teacher education is therefore further compounded by the need to be not just research-informed but research qualified and competent to educate teachers about research and research methods as well as support them to conduct their own school-based research. Indeed, BERA (2014a) advocated that “teacher researchers and the wider research community work in partnership, rather than in separate and sometimes competing universes” (p. 5). So the need for TEs to be research-active is part of the current competitive field in ITE. It is not just about the REF. **Teacher Educators: A Particular Type of Academic**

In terms of research activity, academic staff in education are lagging behind their colleagues in other social science disciplines (Furlong, 2013). Evidence has converged that TEs are a unique type of academic, with a particular background, experiences, pressures and responsibilities. They are typically recruited to the role based on their classroom and school experience and are not required to hold a formal research qualification. Thus, teacher education is usually a second career, in which TEs have emerged “straight from the classroom”, with strengths in professional and experiential knowledge and understanding of teaching in schools (Murray, 1998; Murray & Male, 2005; Sinkinson, 1997). They often have little or no research experience when they embark on the role yet are expected to become

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active researchers relatively quickly (Griffiths et al., 2010; Lander & Nicholson, 2020; Murray & Male, 2005). This perhaps reflects an embedded assumption that preparation for research is unnecessary. It also highlights the need for research capacity building for TEs (Tanner & Davies, 2009).

Indeed, once in post, TEs become acutely mindful of the institutional pressure to be both teaching- and research-active (Gleeson, Sugrue, & O'Flaherty, 2017; Smith, 2011). The culture shift can lead them to question their professional identity, position and worth in HE (Davey, 2013; Ellis et al., 2014; Griffiths et al., 2010). Their lack of research experience and knowledge causes anxiety, concern and uneasiness and is perceived to be a major barrier to research engagement (Borg & Alshumaimeri, 2012; Murray & Male, 2005; Sinkinson, 1997). They must "learn on the go", which can be stressful and can gradually destroy self-confidence (Yamon-Ali, 2017). The latter is already lacking with regards to their research engagement (Griffiths et al., 2010). The failure of TEs to achieve the required dual status can lead to doubts of "academic" credibility, and they feel vulnerable, alienated from the academic culture of the faculty and demoralised by a lack of publications (Murray, 1998; Murray & Male, 2005). In sum, the increased emphasis on research engagement, which results in a reality of "publish or perish" (Gleeson et al., 2017, p. 28), causes considerable tension.

The main obstacle for TEs in the quest to become research-active is a lack of time (Borg & Alshumaimeri, 2012; Davies & Salisbury, 2008; Gleeson et al., 2017; Griffiths et al., 2010; Murray, 1998; Murray & Male, 2005; Tack, Valcke, Rots, Struyven, & Vanderlinde, 2018; Tanner & Davies, 2009; Willemse, Boei, & Pillen, 2016; Yamin-Ali, 2018). Teacher training courses are teaching-intensive in that staff have heavy teaching loads and associated administration, for instance, supervision and assessment of students on school placements (practicums). Ellis et al. (2014) reported that the average number of hours worked each week



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in a sample of 13 TEs working in England and Scotland was 49, with a range of 32 to 71 hours. Moreover, the TE workload in England has recently intensified due to policy changes in education (e.g., Department for Education, 2016), which has meant that TEs have had to produce and validate new programmes in addition to their regular workload. The teacher training year is also longer than that of other HE programmes. Further, there is a perceived absence of support for research within education faculties (Murray & Male, 2005; Tanner & Davies, 2009; Willemse et al., 2016; Yamin-Ali, 2018); the perceived unrealistic dual demands of the institution are viewed as impractical and deeply conflicting (Gleeson et al., 2017).

Qualitative research has found that TEs tend to consider teaching the priority and research a secondary activity to be considered if time allows (Borg & Alshumaimeri, 2012; Griffiths et al., 2010; Murray & Male, 2005; Willemse et al., 2016; Yamin-Ali, 2018). This may be influenced by the immediate requirement to teach once in post, with research being phased in later (Sinkinson, 1997). Some TEs have difficulty in understanding how teaching and research can be integrated and view their research-active colleagues as a privileged and exclusive group (Murray, 1998; Murray & Male, 2005). Beliefs that research can undermine teaching are common (Gleeson et al., 2017; Murray, 1998; Smith, 2011; Willemse et al., 2016). Also, in contrast to the “warmth of the school teachers’ staff room” (Yamin-Ali, 2018, p. 76), TEs perceive the university environment to lack opportunities for communication and teamwork, leading to isolation (Yamin-Ali, 2018).

Factors perceived by TEs to facilitate their research engagement have been identified, many of which address the perceived obstacles. Unsurprisingly, dedicated and realistic time for research is commonly cited (Gleeson et al., 2017; Sinkinson, 1997; Tack et al., 2018). TEs also report that more collaboration and networking with colleagues with similar research interests, both internal and external to their institution, would be beneficial (Gleeson et al.,

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2017; Griffiths et al., 2010; Tack et al., 2018). Some have called for stronger research leadership and a culture shift that encourages a research ethos, including making research compulsory (Gleeson et al., 2017) and more support for research on induction into the role (Sinkinson, 1997). It is important that the institution supports these initiatives for success (Davies & Salisbury, 2009; Tanner & Davies, 2009).

### **The Present Study**

Several factors that TEs perceive would inhibit and facilitate their research engagement have been identified from the literature. Much of this research has been conducted in countries other than England (e.g., Borg & Alshumaimeri, 2012; Gleeson et al., 2017). Due to the current intensive need for TEs to be engaged in research in England (i.e., current pressures from the REF exercise and recommendations from leading professional bodies such as BERA), some of the English studies may be outdated (e.g., Murray & Male, 2005; Sinkinson, 1997). Furthermore, there has been little attempt to apply a theoretical framework to enhance understanding of why some TEs engage in research and others do not (Tack & Vanderlinde, 2014). An exception is a study conducted in Belgium by Tack and Vanderlinde (2014), in which a conceptualisation of a “researchly disposition” defined as the general habit of mind to engage in research, was developed. It was suggested that an individual’s inclination towards research, ability to engage in research and sensitivity for research opportunities determined their researchly disposition. The present research builds on this approach, and on previous literature, and was guided by a theoretical model to understand the reasons why TEs do or do not engage in research.

The theory of planned behaviour (TPB; Ajzen, 1991) proposes that behaviour is determined by the intention to perform the behaviour, which in turn is formed from attitudes towards the behaviour, perceptions of the attitudes and behaviours of important/similar others and/or perceptions of control over performing the behaviour, the latter of which also directly

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predicts behaviour. These attitudinal, normative and control components of the TPB are themselves formed from underlying beliefs about the behaviour. Based on early research on the limits of information processing (see Miller, 1956), Fishbein and Ajzen (1975) argued that although an individual may hold a number of beliefs about a given behaviour, only five to nine beliefs can be attended to at any one time. These beliefs are referred to as “accessible beliefs” and provide information about the psychosocial and cognitive foundation of the TPB components (Ajzen, 2005). They help to explain why some individuals do and do not perform the behaviour and can be targeted for behavioural change. Indeed, a theory-based approach is fundamental for guiding behavioural change (see Michie, Johnston, Francis, Hardeman, & Eccles, 2008).

The current research comprised the first phase of a larger TPB programme of research, of which the ultimate goal was to increase the research engagement of TEs. The first step in TPB research is to conduct a belief elicitation study in which the accessible beliefs regarding the behaviour, in this case, engaging in research as part of the TE role, are identified. As the literature reviewed above (e.g., Borg & Alshumaimeri, 2012) suggests that TEs anticipate many barriers and do not feel in control of engaging in research, in this manuscript we focus on the elicitation and identification of accessible control beliefs. These are proposed to underlie individuals' overall perceptions of control over the behaviour (i.e., engaging in research), which is a central TPB component proposed to predict and explain both the intention to behave (engage in research), and actual behaviour (research engagement) (Ajzen, 1991; Fishbein & Ajzen, 2010). A previous meta-analysis found medium-large and approaching medium-sized statistical relationships between control beliefs (explicitly identified through a TPB elicitation study) and the intention to behave and actual prospective behaviour, respectively (McEachan, Conner, Taylor, & Lawton (2011). This

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attests to the value of exploring and identifying control beliefs using the framework of the TPB.

To reflect the typical background of TEs working in a new university, we focused solely on TEs who did not hold, and who were not currently undertaking, a research degree. Moreover, we focused solely on TEs from a new university in England; this group may be particularly vulnerable to the difficulties associated with initiating a research journey due to teaching still perhaps being perceived as having a higher priority and value than research (BIS, 2010; Griffiths et al., 2010). This adds to the originality of the research. In sum, the aim of the study was to explore the beliefs of TEs, with no formal research qualification and working in a new university, regarding their ability to engage in research as part of their role.

### **Method**

#### **Participants**

The study was conducted in a faculty of education at a new university in the North-West of England. The faculty is one of the leading providers of ITE in the country. At the time of data collection, 4,033 students (75% of whom were on ITE programmes) were enrolled in the faculty and taught by approximately 160 academic staff members working across a range of teacher education and non-teacher education programmes. Due to the aim and context of the study, TEs with or completing a doctorate were excluded from participating, as were colleagues on a casual hourly-paid contract or on extended leave. This left a target population of approximately 70 TEs who were all on the university's standard academic teaching and research contract (i.e., on paper, they were expected to engage in both activities). Purposive, opportunity and snowball sampling were used in which eligible TEs were invited to participate via email and personal contact. Sixteen TEs (9 females, 7 males, aged 33-57 years, mean age = 46 years, 100% white), representing all departments of the faculty, were recruited. They had held the role of TE for an average of 7.4 years (ranging

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from 2-20 years). Based on their interview responses, four TEs were categorised as having limited research experience (25%; e.g., previous engagement in the research component of a masters degree), seven had recently begun their research journey but were still novices (44%; e.g., previously been involved in a research team or having written an ethics or PhD proposal) and five were fully research-active (31%; e.g., actively and currently engaged in research, usually within a group). Details of the sample are displayed in Table 1.

----Table 1 about here----

**Procedure**

The project was approved by a Faculty Research Ethics Committee. Data collection took place during the months of April and May 2017. Participants were provided with information about the aim of the study, the participants' role, ethical considerations and how the results would be used, both verbally and in written form. As the topic of the interviews may have been perceived as potentially sensitive to participants, it was emphasised that their responses would remain confidential and would be anonymized. Participants then provided written consent and completed a short demographics form.

***Semi-Structured Interviews***

It was explained to participants that we were interested in their views about their ability to engage in research as part of their role. This was presented as distinct to engaging *with* research solely for the purposes of teaching, and examples provided, e.g., reading the literature to plan research, meeting with others about research and collecting data. To reduce any effects of time of year and corresponding workload, participants were asked to consider a typical two-month period when responding to the questions, anticipating that any differences would be averaged. Specifically, they were asked to report factors that they perceived would

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make it easier (i.e., facilitating factors) and more difficult (i.e., barriers) for them to engage in research<sup>1</sup>.

All interviews were conducted with the faculty research associate (RA) who was uniquely placed in terms of being on a research-only contract (which was unusual within this new university) but having constant interaction with TEs in the faculty. Some of the participants knew the RA personally, which allowed them to completely open up and respond honestly, without fear of judgement or breaking of trust. This enhanced rapport and trust was a result of the RA's prolonged engagement in the setting, which also helps to establish confidence in the credibility or truth of the findings (Lincoln & Guber, 1985). For the other TEs, it was anticipated that the neutral and non-managerial role of the RA would be perceived as unthreatening and engender trust and honesty, which was indeed confirmed in the interviews (e.g., one participant remarked, "...I could sit here and talk to you and feel quite comfortable but you know maybe if I met with somebody higher up I would feel that a judgement was being made..."). The interviews took place in a private office with only the interviewer and participant present. Interviews were audio-recorded, had an average duration of 37 minutes (ranging from 13 to 83 minutes), and were transcribed verbatim.

### **Data Analysis**

Content analysis procedures were employed to identify the most frequently mentioned accessible control beliefs. These were defined as beliefs reported by at least 25% of the sample (i.e., four TEs). Concurrent with the interview questions, some of the beliefs represented factors perceived to facilitate research engagement, whereas other beliefs were identified as barriers. They were named as such depending on how the majority of TEs perceived them.

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<sup>1</sup> They were also asked questions about their attitudes towards research engagement and perceptions of the attitudes and behaviours of others; the findings of which are not reported in this manuscript.

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Following initial case familiarisation, we identified the control beliefs within each transcript, tallied the number of TEs mentioning each belief, and compiled a list of accessible beliefs. The data were further coded along the principles of interpretive phenomenological analysis (Smith & Osborn, 2003; Smith, Flowers, & Larkin, 2009), where the goal is to understand the meaning of lived experiences from the perspective of the individual (Pietkiewicz & Smith, 2014). The analysis was inductive and a priori concepts and themes were not imposed on the data (Pietkiewicz & Smith, 2014; Smith et al., 2009). Emergent themes were developed and clustered across all transcripts based on similarity to arrive at a set of superordinate themes and subthemes (Pietkiewicz & Smith, 2014).

### **Trustworthiness of Data**

To increase the trustworthiness of the data and findings, several strategies proposed by Lincoln and Guba (1985) were followed, including thick description, prolonged engagement, persistent observation, negative case analysis, analyst triangulation and keeping an audit trail. Findings were presented to the senior management of the faculty and at an academic conference, in which there was deep discussion about alternative ways of viewing the data and resulting themes, i.e., peer debriefing. Further, member checks were conducted in which participants were invited to review the complete analysis and provide feedback. No substantial interpretive differences arose.

### **Findings and Discussion**

There was considerable consensus among the TEs regarding their control beliefs about engaging in research; eleven facilitating factors and ten barriers were classified as accessible. No meaning can be ascribed to the number of enabling versus inhibiting factors, however, as the TEs stated that they were not experiencing many of the former, i.e., they were factors that the TEs believed would facilitate their research engagement rather than being a reflection of what they were currently experiencing. The beliefs were categorised into

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seven higher-order themes: lack of time, having a research mentor, opportunity for collaboration, the nature of ITE, changes in the faculty, feelings, and the inflexibility of university research procedures.

### **Lack of Time**

All but one of the 16 TEs (93.8%) believed that they did not have sufficient time to conduct research. This supports a wealth of research, for instance, Gleeson et al. (2017) found that 87% of their 237 TEs desired more time for research. Writing up research was recognised as particularly problematic, as a solid block of time was required, which corroborates accounts made elsewhere (Griffiths et al., 2010). There was an awareness that the expectation to engage in research was not reflected in teaching timetables. As shown below, some TEs elaborately listed their teaching responsibilities to illustrate the perceived impossibility of fitting research into their schedule and how this led to stress and anxiety.

But the thought of doing research is quite exciting, but the thought of doing research under the time constraints that I know I'll have is not. And it's stressful, and it makes me feel anxious [...] You know I'm either teaching or I'm either marking, or I'm either visiting schools, or I'm either doing countless personal tutor meetings which is like what, four a year, I've got PG [post-graduate student]'s that I'm personal tutor for, it's only a handful, but then I've got 30 [module name] students that are meant to either meet you know as much as they can on an individual basis, you know the time adds up and I wouldn't say I'm specifically as busy as most people. (TE 9)

Six TEs proposed that the explicit incorporation of research into their timetables would help. Suggestions included writing research in as an explicit priority over the summer months, scheduling "research blocks" comprising a few days at a time and/or adding in focussed research time for an hour a day. The TEs reported that faculty management were currently planning to increase their research time by dividing their timetables into 40%



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teaching, 40% research and 20% administration. Although the TEs welcomed this, many were dubious that it would work out logistically, as illustrated below,

Again, between you and me and the tapes I still think there are lots of people that aren't going to get that 40% because if you cut everybody's teaching... My... at the moment when I did that track thing my teaching timetable was 75%. How are they going to take half that off me...? (TE 7)

This demonstrates a lack of faith in the faculty's commitment to translate the expectation to conduct research into a practical strategy for allowing them the time to do so. It relates to the perceived lack of institutional support identified previously (e.g., Tanner & Davies, 2009).

There was also a perception that lecturers in other faculties had more opportunity to conduct research during the extended time blocks when their students were away, in comparison to TEs who had a longer teaching-intensive academic year.

### **Research Mentor**

Two-thirds of the TEs (eleven) reported that a designated research mentor, who could provide individualised support, would be beneficial, as evidenced below,

I just, to be honest sometimes it's just a little bit of like sort of personal support, I'm not scared of asking people for help, but I sometimes feel that if I had someone who was like a dedicated sort of liaison to sort of say you know what are you up to, you know is there anything we can help you on, and you know maybe help me with, you know have you had a look at this journal, or I know someone in the faculty who's doing this, you know I'll give you the details and so on, or here's their name you can find the details, all that type of thing would help. (TE 9)

This has been recognised previously, particularly for TEs at the start of their HE careers (Sinkinson, 1997). Similarly, there was a suggestion that they should be allocated a research mentor on their induction, but also that the mentor should be retained until reaching a certain level of capability, or perhaps indefinitely. Indeed, research capacity building should be

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ongoing (Munn, 2008), and even experienced researchers value the support from mentors (Griffiths et al., 2010). The benefits of having a mentor are well-known in the education literature. For beginning teachers, mentors can provide emotional and psychological support, which can boost self-confidence and job satisfaction (Hobson, Ashby, Malderez, & Tomlinson, 2009). As shown later, the TEs lacked self-confidence about their ability to engage in research, providing an empirical basis for employing the use of mentors in faculties of education.

It was agreed that the research mentor should not be a senior member of staff, to avoid feelings of being judged and to allow them to fully open up. They also believed that the senior colleague would feel “lumbered” with them. The TEs would prefer a more approachable individual, perhaps who had volunteered rather than been “forced” into the mentorship role. These aspects support the literature on what constitutes a healthy mentoring relationship (Hobson et al., 2009). The TEs also wanted to ensure that the focus would be personalised, e.g., “who are you as a researcher?”, rather than output-driven.

Half of the TEs (eight) talked about being held accountable to someone about their research progress and being set deadlines or targets. Six believed that this would be beneficial; some seemed to yearn for more stringent research leadership. If it was made clear exactly what was expected of them, for instance, the number of research outputs required per year, they would feel that they had to “psychologically build it into time frames”, as exemplified below,

...and actually, dare I say, just tell them they have to do it. You've got four projects, four teams going on here, you have to be on one of them, it's going to take up this amount of time and this is what you're going to get from it. Let's stop, you know, tip-toeing around people's sensitivities and insecurities... (TE 10)

Indeed, accountability and making research compulsory may encourage a livelier research culture and harvest perceived rewards (Furlong, 2013; Gleeson et al., 2017). Conversely, the

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remaining two TEs mentioning this belief reported that additional deadlines would only add to the pressure.

A quarter of TEs (four) believed that shadowing an experienced researcher would be beneficial as it would allow modelling of the role. Such “learning on the job” in a team environment with more established researchers has been identified elsewhere (Griffiths et al., 2010; Yamin-Ali, 2018). These beliefs are demonstrated below,

...but that research team element where one leading practitioner that's respected brings people on board to do little... you conduct these interviews and we'll do this write up together and the goal is we're all going to produce this together, and somebody who's got the confidence and experience to actually mentor a team through and in turn I know that that turns into more independent research. Yes, I think that's it, that's the thing for me. (TE 10)

### **Collaboration**

Several control beliefs related to collaboration. Eleven TEs believed that working within a small group would facilitate their research engagement. Ideally, at least one member, or preferably half of the team, would have research experience, for them to progress. The optimal situation would be working in a small group under the leadership of an experienced researcher (i.e., mentor), as shown below,

I think beyond that though I think you need to engender groups of researchers to work together I mean that's what drives things forward is when you're in a supportive group usually with some kind of mentor role. It doesn't have to be official but you know an informal mentor arises within that group. (TE 13)

Five TEs believed that an awareness of the research interests and expertise of research-active colleagues would be beneficial. Some felt that opportunities to develop this knowledge were lacking and that it was not clear who could provide support, for example, in terms of a particular data analysis technique. They suggested that “more time within the team to share interests or areas” would be helpful. Others were more knowledgeable due to

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research having a designated slot on their team meeting agendas. The TEs recognised the benefits of external networking but reported that opportunities were limited.

One way of combatting some of these barriers could be the inclusion of more informal networking within scheduled events and meetings. Nine TEs believed that this would encourage research conversations between colleagues, however, such occasions were, again, perceived to be scarce, as illustrated below,

Whereas you know sometimes it seems to be the informal chatting with someone about something and then linking in with somebody [...] I think that is a big fault of the university or the structure, that there aren't enough occasions when we are together. I don't know spark off ideas and I find that really disappointing in many ways that we are not... we haven't got the opportunity to do that. (TE 4)

Such limited opportunities for collaboration could be attributed to the university structure, as opposed to the school environment of which TEs are accustomed (Yamin-Ali, 2018). Indeed, TEs whose office space was located close to that of experienced researchers, viewed this as highly convenient. The importance of collaborative approaches and learning environments to building research capacity has been emphasised previously (Christie & Mentor, 2009; Gleeson et al., 2017; Munn, 2008; Tack et al., 2018). Communities of practice, comprising individuals of differing levels of research experience, can provide an important learning space for TEs to learn together about research (Cochran-Smith, 2005; Lave & Wenger, 1991), and have proved to be effective at fostering learning among education professionals (Nicholson, Rodriguez-Cuadrado & Woolhouse, 2018; Willemse et al., 2016).

Conversely, a quarter of the TEs (four) reported problems associated with working with others that inhibited their ability to engage with research. This included clashes of personality or ways of working, finding a mutual time when both parties were available to meet (i.e., not teaching) and waiting for colleagues to follow through with agreed actions, as demonstrated below,

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I'd say if you are doing things jointly, you can sometimes be reliant on other people and it sort of depends... you might want to engage in something more but you're at a point especially joint authoring something, if someone's not done what you're expecting then you are kind of stuck at a certain point basically. (TE 1)

This lack of commitment has been found previously (Yamin-Ali, 2018), and highlights the difficulties of limited time for research being exacerbated when TEs collaborate.

### **The Nature of ITE**

Seven TEs felt that the nature and background of the TE role was a barrier to their research engagement. As the quotation demonstrates, they had not previously been required to conduct research in their previous profession of teaching.

Although I think teacher educators from school are perhaps a different kettle of fish aren't they because we have come with a particular background, very similar backgrounds, and we are all... research we are not really sure about that. I think that is the case there. Whereas other people it may be they have done archaeology or something, they are in to that research-thing anyway aren't they? Whereas I have never really been, you know I was a teacher and that's what I wanted to do and I had research to inform my teaching, not because I wanted to be a researcher. (TE 4)

They believed that there would need to be a deliberate change in their motivation to offset a change in behaviour.

Over half of the sample (nine) felt restrained by their lack of research experience and knowledge. This was partly due to the extra workload and training required to obtain the necessary experience/knowledge, as illustrated below. This perceived limitation also triggered feelings of insecurity and a lack of self-confidence, which will be discussed later.

I think in my case as well there's probably a little bit of lack of knowledge and understanding about research [...] ...some of the more academic terms and some of the methodological approaches and things are you know quite alien to me to a large extent. And although I have

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engaged with some of the training that's been available here in the two years I've been here, I still feel uncertain about that I think and that could be why I possibly might be reluctant in some ways kind of to engage too much in that because I'm not really aware of, well I know it'll take a lot of extra reading and thinking and training about what research is all about. (TE 14)

And there are a lot of assumptions that you know what is going on and yet I don't, you know. (TE 4)

These findings support the perspective offered earlier; TEs are a unique type of academic. Their description as research "novices assumed to be experts", by Murray & Male (2005, p. 135), appears accurate and salient in our sample.

There was a strong belief by six TEs that teaching was the priority, and this had repercussions on their ability to engage in research. They talked about difficulties when trying to plan time for research and having to "drop everything" due to their teaching responsibilities, as exemplified below. The TEs also reported that they were often unable to attend research events because they were timetabled to teach.

...we've mapped out one afternoon a month [for research] and I don't feel that's enough but it's and sometimes we've had to cancel because of various things so... It just depends because our job, a lot of it is reactive, we have timetables and we can plan our week to a certain point but we have, we have to respond to the trainees' needs and that's difficult to do. You can't plan for that. (TE 16)

There were also six TEs who perceived that colleagues who engaged in research, versus those who did not, represented "two separate camps". Further, research-active colleagues were viewed negatively by some as they were perceived to prioritise research, at the expense of their teaching responsibilities. These issues discouraged them from wanting to engage in research, as shown below,

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And here, again I think there is a real distinct difference and it's, it's, difficult to talk about really because I think you've got people who are here to, to, further their own careers in research so you've got people who are very PhD driven who are very publication driven and they see the interaction with students and teaching and learning as kind of secondary to their role. You then have the flip side which are people who are more teachers at heart who really focus on the student engagement and the teaching and learning and then research has to be caught up so I think there's a real difficulty in deciding which your priority should be in that [...] ...like I say I think it's the idea of the two camps, it just, it feels like a difficult field to get into. It feels like all there are, are barriers and no opportunities. (TE 12)

These sorts of beliefs bear striking resemblance to those reported previously (e.g., Brown, Rowley, & Smith, 2014; Murray & Male, 2005; Smith, 2011), suggesting that they are embedded in the minds of many ITE professionals and constitute a perceived barrier, and indeed, possible unwillingness, to join the research “camp”.

### **Changes in the Faculty**

Half of the TEs (eight) explained that they had not previously been encouraged to engage in research, as illustrated below, and that this contributed to their lack of motivation.

Previously I think over time historically there has been mixed messages as well so when I arrived here there was no focus on research at all from my line manager, sort of you know my area really, and so the focus then was text books. (TE 13)

Although present in some of the newer TEs, this belief was stronger amongst the longer-serving TEs, and resulted in feelings of disappointment and frustration, which will be discussed later. This could reflect a fear of change, which could be diminished by involving and encouraging TEs to take ownership of the change (Smith, 2003).

On a more positive note, it was recognised by five TEs that the current research culture and “ethos” of the faculty had visibly changed and was now more committed to

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research. There was an expectation to engage in research which made the TEs more inclined to endeavour to “fit it in”, as exemplified below,

Yeah, I think the way the faculty has changed over the last few years, I think it's been brought more to the forefront for me. I've made more of an effort to fit it in because previously it was always, if I had a list of priorities it was always at the bottom of my priorities really [...] So the things that have happened in the faculty I mean I know research has got that higher profile now... and we are expected [to engage in research]. So, I think there is an element of that, well I've got to do it. (TE 5)

The positive motivational effect of the renewed research culture highlights the importance of securing institutional/faculty support for increasing research capacity (Davies & Salisbury, 2009; Tanner & Davies, 2009).

### **Feelings**

A range of feelings were elicited from the TEs. The majority of these were negative in connotation and were perceived as barriers to research engagement. When discussing their limited research experience, nine TEs used terms such as, “terrifying”, “daunting”, and “alien”. The inaccurate assumption that they had research experience led to feelings of insecurity and a lack of self-confidence, supporting past research (Griffiths et al., 2010) and demonstrated below,

I might doubt myself, I might have a feeling of little bit like an imposter syndrome. You know, you are coming from school- I'm still only three years out of school, and coming in and seeing the level at which people are working, the academic prowess of some of the people, it can be a little bit unnerving. Which is possibly why I've not gone in to it sooner.

Because of that uncertainty and thinking “can I be doing it, should I be doing it?” (TE 2)

A quarter of the TEs (four) stated that they lacked the confidence to speak to experienced researchers, amid fears of feeling judged and looking “stupid”, as shown below. They were also worried about their job security, i.e., that they may appear less valuable as an employee



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if they revealed their lack of research knowledge. This corroborates previous findings (Murray, 1998; Murray & Male, 2005). Specifically, a lack of confidence inhibited their research journey by preventing them from asking for support and attending research groups.

...so I found research absolutely terrifying for my first probably six months here and I didn't feel confident enough to admit that or to ask anyone and although there are writing groups and kind of focus groups and things they're too intimidating you don't want to go along to those because you think I'm the outsider here I don't know what I'm doing and as an academic professional, as a teacher, you always want to be the one who's confident. (TE 12)

It is important to expel these feelings and enhance confidence by providing the appropriate support so that TEs feel professionally prepared for their responsibilities (Smith, 2005).

The required support was perceived to be absent for some. A quarter of the sample (four) felt isolated due to limited support and guidance around research, as evidenced below. Some related these feelings of isolation to the small size of their immediate team, physical location of their workspace and the previously-mentioned lack of opportunities for co-operation.

To be honest I'm actually excited about doing it, it's just getting it started and for me I don't, I feel a little bit isolated in terms of the support that I have (TE 9)

Similar findings regarding a lack of clarity about the nature and kind of research TEs should undertake has been reported among Irish TEs (Gleeson et al., 2017).

A further quarter of TEs (four) believed that their practitioner experience was not acknowledged within the faculty, and this made them feel devalued and insulted, as shown below. Some stated that their practice-based achievements and publications in professional and subject-based journals were not recognised. They felt that an open acknowledgement that practitioner experience was valuable would help to disperse the negative feelings, and in turn promote a willingness to engage in research.

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I almost feel you know slightly embarrassed to say well I had it published in the [subject specific] journal. (TE 14)

Yeah and also I think there's kind of an underlying current in the faculty that practice people, that, you know, that were employed because of their practice and their knowledge and understanding of schools for example is not valued as highly as people with a research background maybe. (TE 15)

There was a sense of frustration, disappointment and even anger among five longer-serving TEs that they had been in post for a considerable length of time and yet had failed to build up a successful research career, as illustrated below. They reflected on their attitudes and ambitions at the beginning of their TE career; they would have been willing to engage but had not been offered the opportunity or support to develop (or even initiate) a research profile. Some were close to retirement and believed it was too late to embark on a research journey.

There wasn't the opportunity early on to really get me engaged even though I was keen and now I am sort of bogged down if you like with the day-to-day nitty-gritty thinking... [...] But I think I suppose that is what disappointed me you know, I came in from schools and I was just almost side-lined really, I was just there really, I was there to just teach that group. (TE 4)

Half of the TEs (eight) believed that explicit reassurance from others would help them to overcome their negative feelings, as shown below. An acknowledgement from management that research is new and therefore difficult, and making visible attempts to facilitate this change, would reassure them.

I think people have got to be made to feel supported and comfortable that they are moving in to something which they are probably a little bit nervous about. Because they haven't done it, or have only dabbled in it. And feel like yeah, it's something for me and it's something I can do... and won't be judged. (TE 3)

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Feeling devalued and frustrated, due to the stated reasons, and their impact on the perceived ability and motivation to engage in research, have not been previously identified in the TE literature. One way of helping to combat these feelings is recognised by the TEs themselves, i.e., explicit reassurance from others. This could be built into the mentorship role.

### **Inflexible Research Procedures**

A final one-dimensional belief was that the university's research procedures were inflexible and rigid. Four TEs felt that this was a significant barrier to their research engagement, as demonstrated in the quotations below,

I find the ethics the biggest hurdle, which I'm just getting over now. But again the second you enter into something it feels like you're hit with quite an academic barrier. (TE 12)

So some of our internal processes I personally have found pretty disabling [...] Frankly I could've done the research in the time it's taken to go through that process and address it and update it and... (TE 13)

Examples included applications for ethical approval, internal research funding and financial support for conference attendance. Some of the TEs referred to the associated administrative burden of getting through these processes, while others reflected on frustrations with the methods of receiving feedback. An overhaul of these procedures, or alternatively, training sessions aimed at inexperienced researchers, are required.

### **Summary**

It was evident that the TEs found engaging in research as part of their role to be challenging. They exhibited strong beliefs regarding factors that they felt prevented them from engaging in research and reported that they were not currently experiencing many factors that they perceived would facilitate their research engagement.

### **Conclusion**

Beliefs of TEs regarding perceptions of control over their decision to engage in research were elicited and the most accessible beliefs identified. This study adds to the

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relatively limited literature-base on TE research (Borg & Alshumaimeri, 2012; Menter & Murray, 2009) and provides an outlet for the voice of the TE that has often been neglected in policy and research (Tack et al., 2018). It also extends the existing research, conducted elsewhere, by providing a timely overview of the control beliefs of TEs without a research qualification and working in new universities in England regarding their research engagement. This is pertinent since the recognition of its importance among leading researchers and BERA. Although based on a small sample, the findings bear striking similarities to those of previous studies that were conducted with TEs from across the globe (Borg & Alshumaimeri, 2012; Gleeson et al., 2017; Tack et al., 2018; Tack & Vanderlinde, 2014; Willemse et al., 2016; Yamin-Ali, 2018). This suggests that TEs from a variety of contexts face similar issues relating to their perceptions of control over engaging in research, indicating a degree of validity and generalisation.

Many of the TEs in our sample believed that it was difficult for them to engage in research. Several barriers were identified, most pertinent of which were lack of time, insufficient mentoring, limited opportunities for collaboration, the nature of ITE and negative feelings. Many aspects of the findings were novel and added more depth to factors identified previously. Negative feelings associated with the difficulty of engaging in research were identified, including where they originated from, how they manifested and how they could be reduced. It was interesting to note that although the TEs recognised their lack of research skills and experience as an inhibiting factor, they did not seem to want specific research training per se. The expectation that they should be engaging in research regardless of a lack of training may have become embedded and therefore accepted as standard procedure. The TEs were more focussed on learning by doing (with the support of a research mentor and group collaboration), perhaps due to their awareness of a lack of time for more formal research training.

**Limitations**

The TEs who chose to participate may have differed in their views compared to the remainder of the target population. The fact that accessible beliefs were mentioned by at least four TEs, however, and that many beliefs were reported by many more than this, suggests that the views are representative. Also, the sample was diverse in terms of their own research engagement. There may have been issues with trustworthiness, including the concealing of true feelings due to the perceived association between the lack of research engagement and job security. The prior relationship between the RA and some of the TEs, along with contrary evidence from the other TEs, suggests that this was not influential. It must also be acknowledged, however, that existing relationships between the interviewer and interviewees may have produced negative consequences. For instance, a preconceived judgement held by the RA about the participants may have influenced their interaction style (interviewer bias) or the TEs may not have been completely honest about some of the issues to present themselves in a more positive light (social desirability).

Some of the beliefs may have been unstable, as the TEs reported that strategies employed by the faculty to facilitate research activity were changeable. Therefore, the study may have only captured beliefs at a snapshot in time. None of the TEs reported misinterpretations of their views in the member checking exercise, however, which was conducted over a year later. The request for participants to reflect on a typical two-month period when responding to interview questions was intended to mitigate any time of year differences, compared to, for example, considering the forthcoming two months. This, together with the findings of Ellis et al. (2014) in which no substantial differences were found in the research activity of TEs at different times of the year, makes it unlikely that findings were biased by the timing of interviews. Finally, the research was intended to explore the control beliefs of TEs based at a new university. We expect that the beliefs of TEs based in

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old universities, which are traditionally more research-intensive (BIS, 2010), may differ, and therefore findings should not be generalised (but see Griffiths et al., 2010).

### **Implications and Future Research**

Managers of faculties of education should expect, encourage and most importantly, support, their TEs to engage in research (Furlong, 2013). It would be beneficial if the findings of this research were utilised to facilitate this endeavour. In subsequent phases of this TPB research, we intend to investigate the extent to which the accessible control beliefs relate to overall perceptions of control, intention and actual research engagement using quantitative methods and analysis, in a larger sample of TEs from other new universities. This will reveal the key beliefs that should be targeted to increase research engagement (Ajzen, 2005; Fishbein & Ajzen, 1975), which will ultimately allow theory- and evidence-based interventions, rooted in the qualitative data, to be developed and rolled out in faculties of education.

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Table 1

*The Sample: Details for Each Participant*

Number	Gender	Age Group	Years in Role	Research Experience
1	Male	30-40	3.5	Active
2	Male	40-50	3.0	None
3	Male	40-50	7.0	Novice
4	Male	50-60	4.0	None
5	Female	40-50	19.0	Active
6	Female	50-60	20.0	Novice
7	Female	50-60	4.0	Active
8	Female	40-50	3.5	None
9	Male	30-40	2.0	None
10	Female	30-40	9.0	Novice
11	Female	50-60	12.0	Novice
12	Female	30-40	5.0	Novice
13	Male	40-50	13.0	Active
14	Male	50-60	6.0	Novice
15	Female	40-50	4.0	Novice
16	Female	50-60	4.0	Active