

Core Practices of Teacher Preparation in an Outstanding Teacher Education Programmeme: Lessons for Practice-based Teacher Education in Uganda

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Abstract

Worldwide, teacher educators and policy-makers have called for teacher preparation to be practice-based. Yet, we know little about what practice-based core practices can link teacher education with practice. Although a rich literature on critical features of teacher education has continued to develop over the past decade, this research has overlooked the core practices that facilitate teacher trainee learning about practice and learning in practice. This study takes a step forward by defining practice-based core practices in teacher education, identifying and documenting core practices and how they are enacted or implemented in a teacher preparation programmeme to facilitate teacher trainee learning and achievement of teacher standards. I present and discuss findings and lessons from a 10 - month instrumental case study with PGCE Secondary teacher trainees and expert teacher educators in an on-ongoing pre-service teacher education programmeme in England. It is hoped these results can be applied in other contexts, such as Uganda, with various models of initial teacher education; notably, they may be used to help inform and/or even guide efforts for implementing teacher education models based *on* and *in* practice.

Keywords: Teacher preparation, Teacher education, Practice based teacher education.

Introduction

The World Bank's World Development Report (2018) demonstrates a stark picture of shockingly poor learning outcomes that students in many low- and middle-income countries achieve. The authors highlight '*the learning crisis*' that much of the world faces and illustrate this with examples of how little learning appears to occur in schools. Millions of young people are not reaching minimum learning standards despite being enrolled in formal education. One of the key explanations for the learning crisis in Sub-Saharan Africa is the acute shortage of well-trained teachers (UNESCO, 2018). The lack of well-trained teachers jeopardises quality, inclusiveness



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and equity in education, and the most considerable deficit is in sub-Saharan Africa. Earlier, UNESCO-UIS (2016) indicates that 70% of sub-Saharan African countries face acute teacher shortages, rising to 90% at the secondary level. The possible solution to the urgent need for action proposed in this World Bank Report (2018) is to make teachers more effective.

The introduction and implementation of universal primary and secondary education in most African countries without matching teacher supply and quality has led to increased access to learning (UNESCO Global Education Monitoring Report, 2016). Teacher shortage and quality problems are exacerbated by the intractable problems of teacher education and training (Moon & Villet, 2016). Initial Teacher Education (ITE) systems in Africa have been described as outdated, misaligned with the school curriculum, overly theoretical, and distanced from actual school contexts (Westbrook, Durrani & Brown et al., 2013). Teacher educators rarely use practice-based pedagogic approaches; school placements are unguided and unsupervised, and trainees' experiences in practice schools remain a case of 'sink or swim' for them (Pryor, Akyeampong & Westbrook et al., 2012). This has resulted in large shares of newly qualified teachers who do not master the curricula of the students they are teaching; basic pedagogical knowledge is low, and the use of good teaching practices is rare. The newly trained teachers are not classroom-ready, as the training lacks a focus on effective classroom practice (Moon & Villet, 2016). Moreover, not enough opportunities are provided for teacher trainees to learn teaching in the context of real classrooms, thus limiting the impact that it can have on classroom practice (Akyeampong, 2017).

Unsurprisingly, many students lack the most basic elements of literacy and numeracy in East Africa (UWEZO, 2016). Sub-Saharan Africa needs an effective and efficient teacher education system to build an adequate, competent, relevant workforce necessary for achieving Sustainable Development Goals. SDG 4c seeks to encourage international cooperation around teacher supply and education. Policy and practice reform in all teacher education forms is a priority. Embracing practice-based teacher education and drawing on the experiences and core practices of outstanding teacher education programmes in the UK and elsewhere can contribute to improvement efforts.

The concept of practice-based teacher education and teacher preparation

To address the above challenges, there is increasing attention to how teacher candidates learn to teach in practice and ground teacher education more deeply in classroom instruction (BERA, 2014; Conway & Munthe, 2015; Darling-Hammond et al., 2017; Zeichner, 2012). This attention to Practice-Based Teacher Education (PBTE) prompts the question: Which practice (s) can fundamentally link University theory to opportunities for teacher trainees to learn how to teach in the context of real classrooms? And perhaps more fundamentally, what counts as a practice worth learning for a teacher trainee? While the definitions of what constitutes a core practice/ or a high-leverage practice vary across researchers, all definitions share the following characteristics: practices that occur with high frequency in teaching; practices that novices can enact in classrooms across different curricula or instructional approaches; practices that novices can begin to master; practices that allow novices to learn more about students and teaching; practices that preserve the integrity and complexity of teaching; and practices that are research-based and have the potential to facilitate achievement of teacher standards by teacher trainees (Grossman, 2021). These core practices can be categorised into teacher education based on practice and teacher education based in practice (Forzani, 2004).

Despite the varied nomenclature, common conceptions of teaching and teacher education connect the different strands of the core practices movement (Grossman, Hammerness et al., 2009, Fogo, 2014). Several researchers are currently trying to identify a set of high-leverage

practices that might be targeted in teacher education (e.g., Franke, Grossman, Hatch, Richert, & Schultz, 2006; Kazemi & Hintz, 2008; Kazemi, Lampert, & Ghouseini, 2007; Sleep, Boerst, & Ball, 2007). While some researchers are identifying core practices specific to a subject because of the challenges in navigating subject-specific boundaries, as different disciplines draw on other epistemological traditions, use the same terms differently, and rely on distinct “curricular scripts” (Graeber, Newton, & Chambliss, 2012; Leinhardt, Putnam, Stein, & Baxter, 1991). Others highlight practices that cut across subjects, such as the Teaching Works’ “high-leverage practices” (Fogo, 2014; McDonald, Kazemi, & Kavanagh, 2013; Ball & Forzani, 2009). A set of cross-subject core practices might be especially useful for the preparation and support of teachers, who largely teach multiple subjects (Cohen, 2018), and could be adapted for subject-specific practices.

This study adopts the definitions of practice-based core practices, which are cross-subject, high-leverage practices that are activity-based and fundamental to teaching and learning in teacher preparation. These practices are deliberately studied, enacted and modelled to represent, decompose, and approximate core teaching practices in schools. Teacher trainees need to have repeated opportunities to see core teaching practices modelled, rehearsed and practised, and to receive detailed feedback on their use of these core practices (Zeichner, 2012). These practices are used constantly and are critical because they help teacher trainees to learn curriculum content, general pedagogies and technologies, similar to what Koehler and Mishra (2008, 2009) referred to as technological pedagogical content knowledge (TPACK). These practices are also referred to as high-leverage practices; they are central to supporting teacher trainee professional development and are used across subject areas and in both campus-based and field placement contexts. They are “high-leverage” because they link university coursework to classroom instruction, provide opportunities for grounding teacher education in practice, and can develop into a teacher education pedagogical pattern.

The rationale for research on practice-based teacher education

Teacher preparation grounded in practice can have a significant impact on student learning (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009), increase teacher retention (Feiman-Nemser, Tamir, & Hammerness, 2014) and enhance candidates’ future practical competence in the classroom (Brouwer & Korthagen, 2005; Darling-Hammond et al., 2002). However, Boyd et al. (2009) found that candidates’ learning opportunities were rarely grounded in practice, yet knowledge and evidence about practice-based teacher education are sparse (Jenset, 2018; Cochran-Smith et al., 2016). Few studies have examined this issue, so numerous questions remain: To what extent teacher education programmes are centred in practice? How and where in candidates’ coursework is theory to practice connections made? Are there particular kinds of practices that teacher education candidates encounter that can inform teacher education strengthening in Uganda? Building upon calls for more international research in teacher education (Grossman, 2021; Cochran-Smith et al., 2016), this study will focus on the question, In what ways is the teacher education programme in the UK grounded in practice? Furthermore, what can we learn from these practices, processes and activities to inform teacher education strengthening in Uganda?

Teacher educators, researchers and policy-makers worldwide have long emphasised the need for practice-based teacher education (Jenset, 2018; Darling-Hammond, 2017; British Educational Research Association, 2014; National Council for Accreditation of Teacher Education, 2010). Currently, what gets taught during teacher preparation varies dramatically among nations depending largely on the policy, country context, personal knowledge of teacher educators,

experiences, and worldviews of the teacher education systems. Loughran and Hamilton (2016) note that teacher education is a field of study that has increasingly come under scrutiny in recent times as the expectations for the teaching workforce and hopes for advancement in school learning are so often tied to the perceived ‘quality’ of initial teacher education. Such attribution is a consequence of a particular conception of teaching and learning that ostensibly portrays them as existing in a direct cause-and-effect short-term, immediately measurable, linear relationship.

As a result, the field of teacher education is undergoing a major shift—a turn away from a predominant focus on specifying the necessary knowledge for teaching toward specifying teaching practices that entail knowledge and doing (McDonald, Kazemi, & Kavanagh, 2013). The fundamental aim undergirding this shift is to better support teachers in learning to use knowledge in action (Zeichner, 2012; Ball & Forzani, 2009, Grossman, Hammerness, et al., 2009). The recognition that knowledge alone is insufficient as a foundation for effective teaching has led to a call for programmatic investment to support the identification and documentation of teacher education practices that facilitate teacher-trainee learning practices (Ball & Forzani, 2011; Grossman et al., 2009). For example, this shift to practice has led some scholars to organise the work and scholarship of teacher education around what they refer to as core practices in secondary schools.

Research on core practices of teacher preparation has the potential to provide evidence on opportunities to link to practice that teacher educators and pre-service teachers can draw on. However, to realise this vision, there is a need to reimagine the curriculum for learning to teach and the pedagogy of teacher education by offering a framework to conceptualise the preparation of teachers organised around core practices (McDonald, Kazemi & Kavanagh, 2013). This study has an agenda to engage teacher trainees and educators in a systematic knowledge generation regarding the core practices that facilitate the achievement of teacher standards. This can also enable teacher educators, teachers and policy-makers to imagine strategies and activities to generate and aggregate knowledge about teaching and the pedagogy of teacher education that, when applied with caution, can greatly contribute to effective teacher preparation in developed and developing countries.

Richmond, Bartell, Floden and Petchauer (2017) indicate that research on core or high-leverage practices has most often a privileged subject matter without addressing the specific moves that pre-service teachers can enact in the classroom or what these moves look like across the development of teacher preparation practice leaving the unanswered question of what high-leverage practices or core teacher preparation practices look like. Feuer, Floden, Chudowsky, and Ahn (2013) indicate that while there is some evidence from evaluating the quality of teacher preparation programmes, accurate national evidence of programme practices is not a central purpose of any of those evaluation systems. As pointed out by Richmond (2018), the lack of nationally representative research about teacher preparation makes it difficult to determine what specific improvement practices and efforts can be focused on.

Windschitl, Thompson and Braaten (2009) earlier pointed out that the current preparation of educators, especially in the area of instructional methods, is under-informed by knowledge of how young people learn and uninformed by knowledge of how novice teachers learn to teach; there are no commonly acknowledged sets of K-12 instructional practices in the various subject matters that the field of teacher preparation would consider “core” to the success of new educators. If a defined set of cross-subject high-leverage practices could be articulated and taught in teacher preparation, the broader teacher education community could collectively refine these practices as

well as tools and other resources that support their development in various classroom contexts. Without an identifiable set of core practices to anchor instruction by both teacher educators and beginning teachers, improvement in instruction within and across institutions and nations will continue to be isolated, individual, and haphazard (Windschitl, Thompson & Braaten, 2009).

The rationale for teacher education based on practice and practices

In focusing on core practices, Grossman et al. (2009) emphasise that teacher educators must attend to both the conceptual and practical aspects associated with any given practice. For example, they cite the practice of instructional scaffolding. When teaching practices related to instructional scaffolding to pre-service teachers, teacher educators can focus on the underlying theoretical principles of why to scaffold instruction so that teachers learn when and under what conditions to provide instructional scaffolding. In addition, teacher educators should provide pre-service teachers with opportunities to learn and enact the instructional routines involved in scaffolding instruction. While teacher trainees experiment with enacting such practices, they also develop a professional identity built around their role as a teacher – the practices help elaborate their understanding of what it means to act as a teacher (Grossman et al., 2009; Ronfeldt, 2008). Core practices may offer teacher educators powerful tools for preparing teachers for the constant in-the-moment decision-making that the profession requires (Morva et al., 2013).

Grossman and McDonald (2008) had earlier indicated that research on K-12 teaching and teacher education had developed independently, often with research on teacher education lagging far behind. However, the authors also direct that, as the work to identify core practices in the disciplines suggests, forging a tighter relationship between research on teaching and the work of teacher education could help the field gain traction on a number of its perennial challenges, such as bridging research and practice of teacher education has the potential to help the field: (a) articulate a common language for specifying practice, which would facilitate the field's ability to engage in the collective activity; (b) identify and specify common pedagogies in teacher education; and (c) address the perennial and persistent divides among university courses and between university course work and clinical experiences (Grossman, & McDonald, 2008).

An abundance of past reforms in teacher education (e.g., professional development schools and competency-based teacher education) act as cautionary tales for leveraging core practices in the preparation of teachers (Zeichner, 2012). Lessons from these efforts suggest that the move toward core practices in teacher education risks becoming fad-like, resulting in a proliferation of approaches driven more by the trend than by a deep understanding of how people learn to enact ambitious professional practice. To avoid this path, Zeichner (2012) recommends that core practices accompany the identification, development, and implementation of teacher education pedagogies to prepare teachers with those practices. Without an investigation into the core teaching and learning activities that teacher educators use to teach teacher trainees how to enact core practices, even those efforts that strike the best balance between complexity and accessibility will stall implementation. As the field of teacher education turns toward practice, the field requires new conceptualisations of practice and new designs for teacher education that can address the persistent divides among university courses and between university coursework and clinical experiences and have great potential for leveraging achievement of teacher standards.

One common mischaracterisation of the core practice movement is pushing to identify one set of practices for the field to adopt. However, this characterisation does not align with the arguments being put forward by the scholars leading this work (MacDonald et al., 2013); these scholars seem less interested in prescribing one set of core practices and more interested in:

- a) Developing a common understanding of the concept of core practice so that the concept itself might become a field-wide tool for the organisation and implementation of practice-based teacher education initiatives;
- b) Enabling the creation of a community of practice around a vision of teacher preparation;
- c) Cultivating relationships among teacher educators who are oriented toward practice-oriented training and aim to learn about and attend to teacher trainee needs with other teacher educators (e.g., university, district-, and school-level individuals) who support teacher learning and development.

Conceptualising “core practices that facilitate achievement of teacher standards

Practice-based teacher education is not a new concept. To identify core practices that might be present in an outstanding teacher education programme in this study, we drew upon research that has been investigating core practices (high leverage) in teacher education (Ball & Forzani, 2009; Grossman, Hammerness, & McDonald, 2009; Windschitl, Thompson, Braaten, & Stroope, 2012; McDonald, Kazemi & Kavanagh, 2013), research on key features of teacher preparation programmes (National Research Council, 2010; Council for the Accreditation of Educator Preparation, 2013; Feuer, Floden, Chudowsky & Ahn, 2013; Darling-Hammond, 2005a, 2005b; 2006a, p. 276), as well as research on teacher standards (Ofsted, 2017; Korthagen, 2016; Darling-Hammond & Bransford, 2005).

The following criteria for identifying core practices (McDonald et al., 2013; Windschitl, Thompson, Braaten, & Stroope, 2012) has been applied in this study:

- Applicable and important to the everyday work of teachers
- Occur with high frequency in teaching,
- Focus directly on instructional practice
- Research-based and known to foster important kinds of student engagement and learning
- Broadly applicable and usable in any content area or approach to teaching
- So important that executing that is fundamental to effective teaching
- Applicable and important to teacher education
- Can be articulated and taught
- Practices that novices can enact in classrooms across different curricula or instructional approaches,
- Novices can begin to master,
- It can be practiced across university and field-based settings
- Allow novices to learn more about students and teaching,
- Preserve the integrity and complexity of teaching, and
- Embody a greater theory regarding the relationship between teaching and learning
- Support broader student learning goals

With these criteria in mind, what becomes important is not only a consensus on a final set of universal teacher preparation practices but also a continual dialogue within the field and among scholars over how to conceptualise aspects of practice that facilitate teacher trainee learning such as the meanings that are imbued in these practices, the activities that are implemented to enact

these practices; and their relative usefulness to facilitate achievement of teacher standards.

From this perspective, variation in core practices within and across content areas offers rich opportunities for the field to grapple with ways of deconstructing practices that support teachers' learning. Morva et al. (2013) caution that while we are wary of prescribing a set of core practices for the field, we are also not arguing that we use a familiar approach within teacher education. Instead, they argue that the field would benefit from agreeing on a set of criteria for identifying, naming, and selecting core practices and also impact the field at large by developing a process for determining what counts as a core practice and developing a common language for describing the practice of teacher education, as well as identifying a set of related teacher education pedagogies is critical. Without a common language and a set of identified pedagogies, teacher educators are left on their own to figure out how to prepare teachers, and more importantly, the field itself misses an important opportunity to generate knowledge on the range of ways to support teacher trainee learning (Morva et al., 2013).

Perspectives and framing: Standards and key features of teacher preparation

Recent research indicates that a consensus is emerging around the principles that guide the design, delivery and assessment of effective teacher education programmes. This consensus is grounded in research that provides a clearer understanding of the knowledge, skills, beliefs and attributes that programmes should enable future teachers to learn and develop teacher knowledge in teacher education earlier referred to by (Shulman, 1990). Well-written teaching standards synthesise this research into a vision of effective learning and more explicit expectations for what beginning teachers should know and be able to do. These standards also provide greater coherence to programme design, delivery and assessment.

Several reports have synthesised best practices and research on the characteristics of programmes that enable teacher trainees to meet teacher standards (National Research Council, 2010; Council for the Accreditation of Educator Preparation, 2013; Feuer, Floden, Chudowsky & Ahn, 2013). Earlier, Darling-Hammond (2005a, 2005b; 2006a, p. 276) provided a synthesis of best practice principles for constructing well-designed 21st teacher education programmes as given below:

- a. Coherence*, based on a common, clear vision of good teaching grounded in an understanding of learning, permeates all coursework and clinical experiences;
- b. A strong core curriculum* taught in the context of practice, grounded in knowledge of child and adolescent development, and an understanding of learning in social and cultural contexts, curriculum, assessment and subject-matter pedagogy;
- c. Extensive, connected clinical experiences* that are carefully developed to support the ideas and practices presented in simultaneous, closely interwoven course work; at least 30 weeks of supervised practicum; and student teaching opportunities in each programme
- d. Well-defined standards of professional knowledge and practice* are used to guide and evaluate coursework and clinical work;
- e. Explicit strategies* that help students (1) confront their own deep-seated beliefs and assumptions about learning and students and (2) learn about the experiences of people different from themselves;
- f. An inquiry approach that connects theory and practice*, including regular use of case methods, analyses of teaching and learning, and teacher research applying learning to real problems of practice and developing teachers as reflective practitioners;

g. Strong school-university partnerships that develop common knowledge and shared beliefs among school- and university-based faculty, allowing candidates to learn to teach in professional communities modelling state-of-the-art practice for diverse learners and collegial learning for adults; and

h. Assessment based on professional standards that evaluates teaching through demonstrating critical skills and abilities using performance assessments and portfolios that support the development of ‘adaptive expertise.’

Complementing the key features of teacher preparation programmes is the emerging consensus around the principles that should guide the design, delivery and assessment of effective teacher education programmes (Korthagen, 2016; Darling-Hammond & Bransford, 2005), grounded in greater confidence about the knowledge, skills, beliefs and attributes that future teachers should have the opportunity to learn (Shulman, 1987). Well-written teaching standards synthesise this research into a vision of effective teaching (Dwyer, 1994; Council of Chief State School Officers, 2010). This vision provides a sounder basis for the programmes’ design, delivery and assessment. The National Commission on Teaching and America’s Future (NCTAF, 1996), for example, earlier argued that;

Standards for teaching are the linchpin for transforming current systems of preparation, licensing, certification and ongoing development...(they) bring clarity and focus to a set of activities that are currently poorly connected and often badly organised. . . Of greatest priority is reaching an agreement on what teachers should know and be able to do to teach to high standards. (p. 67).

Relatedly, Ingvarson, Reid, Buckley et al. (2014), in their *Report on best practice teacher education programmes and Australia’s own programmes*, standards provide a vision of high-quality teaching. They are also measures or ‘benchmarks’ they aim to clarify the knowledge, capabilities and values that future teachers should gain from their teacher education programmes. Standards thereby give teacher education providers clear direction about the *opportunities to learn* their programmes should provide, without prescribing how they should prepare teachers. They explain to teacher trainees what they are expected to show they know and can do before they are eligible to join the teaching profession. In this Report, Ingvarson et al. (2014) synthesise the core components of a standards-based teacher education ‘system’ to include:

- a) *Standards* that describe what beginning teachers should know and be able to do as a result of their preparation and thereby guide the planning of teacher education programmes;
- b) A *coherent* programme for professional learning wherein each course in the programme is justified in terms of how it enables students to meet particular teaching standards - and the courses, collectively, cover all the standards;
- c) Progress and graduation from the programme based on a sequence of authentic *performance assessments* that together provide reliable evidence that students meet all the standards;
- d) *Accreditation* of teacher education programmes conducted by an independent professional body and based on valid and reliable evidence that graduates meet standards for certification and full entry to the profession.

In another report, *Raising the Bar*, from the American Federation of Teachers (2012) argues that: “...it is time to finally act on sustainably addressing teacher preparation: through action to accept

common professional standards, align preparation to those standards, and enable the profession itself to ensure candidates meet them“ (p. 4). The emphasis on standards-based outcomes opens greater opportunities for innovation and experimentation than traditional approaches to accreditation, which have tended to focus more on reviewing course content, reading lists, and assignments. These developments provide a closer alignment between standards for what beginning teachers need to know and can do; the design of teacher education programmes; the methods used to assess pre-service teachers’ knowledge and performance, and the criteria used to assess and accredit teacher education programmes. What is missing in these developments are the practice-based core practices that facilitate teacher-trainee learning and impact the achievement of teacher standards.

Teacher education in England: The policy and practice context

The quality of teacher education programmes depends significantly on the wider social, policy and regulatory context within which they operate (Linda la Velle, 2017). Drawing from the OECD policy agenda, Czerniawski, Gray, MacPhail, Bain, Conway and Guberman (2018) indicate that, within an economic context of a recent global recession exacerbated by Brexit, the current state of England’s teacher education is challenging and reflects, in part, the continued dominance of ministerial views espousing a commitment to the marketplace, supply-side economics and fiscal restraint (Gove 2013; Ball, 2011). The policy context of teacher education in England shows that there has been a move toward an increasingly school-led ITT system (DfE, 2016). The general trend has been for increasing trainees entering school-led routes. For example, 53% of the 27,000 entrants to post-graduate ITT in 2017-18 were on school-led routes. The proportion enrolling on post-graduate ITT courses at higher education institutions was 47% (DfE, 2017). Some have suggested that the increasing focus on school-led routes could bring into question the sustainability of some university-centred provisions. In response, the 2015 Government stated that “a school-led system does not mean a university-excluded system” and emphasised the collaboration between schools and universities in most School Direct courses (DfE, 2016).

The briefing paper to the House of Commons (Roberts & Foster, 2018) shows that around 30,000 individuals enter ITT in England each year through several routes). Although they vary in other ways, the main distinctions between the different ITT routes are whether they are school-centred (for example, School Direct) or higher education-led and whether the trainee pays tuition fees or receives a salary (Roberts & Foster, 2018). Alongside the available routes a school-led post-graduate teaching apprenticeship was set to be launched in September 2018. All ITT courses include time spent teaching in at least two schools, leading to qualified teacher status (QTS) award. All trainees, regardless of route, must meet some minimum standards. They must, for example, hold GCSEs in English and Maths (and science for enrolment on primary ITT) at grade C / grade 4 or higher. In addition, since September 2013, trainees have had to sit and pass professional skills tests in literacy and numeracy before beginning their course. Before 2013, passing the tests was an exit requirement of training.

The National College for Teaching and Leadership (NCTL) is responsible for awarding QTS, which is usually made at the end of teacher training. Only initial teacher training (ITT) providers accredited by the NCTL can recommend trainees for QTS. The Teachers’ Standards define the minimum level of practice expected of trainees and teachers from the point of being awarded QTS. They are also used to assess trainees working towards QTS, with DfE guidance stating that ITT providers should assess trainees against the standards “in a way that is consistent with what could reasonably be expected of a trainee teacher before the award of QTS”. The Teachers’ Standards for use in schools in England from September 2012 define the minimum

level of practice expected of trainees and teachers from the point of being awarded qualified teacher status (QTS). The Teachers' Standards are used to assess all trainees working towards QTS and all those completing their statutory induction period. They are also used to assess the performance of all teachers with QTS who are subject to The Education (School Teachers' Appraisal) (England) Regulations 2012 and may additionally be used to assess the performance of teachers who are subject to these regulations and who hold qualified teacher learning and skills (QTLS) status (DfE, 2011).

Teacher training routes in England provided in the Ofsted (2017) report on initial teacher education outcomes show that teacher trainees can take different pathways to gain qualified teacher status (QTS). These pathways, or routes, can be grouped into school-led or university-led routes: on school-led routes, trainees are placed within a school from the first day of training, where they receive practical hands-on teacher training delivered by practising teachers; in university-led courses, the university or college delivers the pedagogy of teaching — at least two placements supplement this. It is indicated in this Report that five years ago, approximately three-fifths (61%) of all partnerships were based in universities. To date, less than half (48%) of partnerships are university-based.

This change is mainly due to the growth of school-centred initial teacher training (SCITTs). The growth was at its largest between 2014 and 2015 when the number of school-led partnerships increased from 104 in 2014 to 188 in 2015. This rapid increase was driven by government policy towards school-led partnerships, leading to more SCITTs and the migration of employment-based training partnerships into SCITTs. The number of school-led partnerships has increased since 2013, and 52% of all partnerships are now based in schools. Even though the number of SCITTs has rapidly increased, university-led partnerships increased slightly in the same period, from 163 to 177.

Broadly, school-led providers are small and take fewer trainees than university-led providers. For example, 79% of university-based providers offer at least two age phases, and many (47%) offer at least three. However, over half (54%) of school-led providers specialise in a single age phase. The average number of trainees in school settings from 2016 to 2017 was about 120; for universities, it was about 530. This means that although fewer than half of partnerships are based in universities, just under two-thirds (65%) of trainees are still training in university-based partnerships. Czerniawski et al. (2018) caution that both Schools Direct and School-Centred Initial Teacher Training (SCITT) represent a significant threat to higher education institutions (HEIs) through decreasing student numbers (and therefore income), the extent to which research remains viable within the academy, and the value placed on different forms of professional learning. This paper addresses questions: What practice-based core practices of teacher preparation facilitate teacher trainee achievement of teacher standards? How are these practice-based activities implemented within teacher training programmes that facilitate teacher trainees' achievement of teacher standards?

Core practices of teacher preparation and teacher standards in the UK

The core practices of teacher preparation facilitate teacher trainee learning and impact teacher trainees' achievement of teacher standards. The teachers' standards set a clear baseline of expectations for teachers' professional practice and conduct and define the minimum level of practice expected of teachers in England. The Teachers' Standards are used by initial teacher training (ITT) providers to assess whether trainees can be recommended for qualified teacher status (DfE, 2011).

The UK teacher standards

Part One Teaching

- Standard 1 Set high expectations which inspire, motivate and challenge pupils
- Standard 2 Promote good progress and outcomes by pupils
- Standard 3 Demonstrate good subject and curriculum knowledge
- Standard 4 Plan and teach well-structured lessons
- Standard 5 Adapt teaching to respond to the strengths and needs of all pupils
- Standard 6 Make accurate and productive use of assessment
- Standard 7 Manage behaviour effectively to ensure a good and safe learning environment
- Standard 8 Fulfil wider professional responsibilities

Part two: Personal and professional conduct

Source: Department for Education, 2011

Overview of the study

This study aimed at identifying, defining and detailing core/ teacher preparation practices that facilitate learning and impact the achievement of teacher standards and how these core practices are implemented in an outstanding teacher training programme. The objective is to document the activities enacted/performed by teacher trainees and teacher educators across subject areas during university sessions and in a field placement for over ten months. Ethical review was carried out and achieved at the university offering the PGCE, where the author was hosted for ten months as a visiting commonwealth Academic Fellow. The BERA(2011) revised ethical guidelines adhered to. I note, however, the distinction here between ‘procedural ethics’ and ‘ethics in practice, an instructive distinction for the research described in this paper. ‘Ethics in practice involves identifying and responding to context-dependent circumstances and ethical contingencies—or ‘ethically important moments’—that arise throughout research projects (Block et al., 2013). In this regard, I was conscious of continuing seeking both verbal and written permission from the different university contexts during the process of data collection. For instance, I hierarchically approached the study by first seeking permission from the Head of the School of Education before talking to the staff and eventually to the students. As ‘ethical questions are not static and need to be considered and reflected upon across the lifecycle of a research project (Bilger and Van Liempt 2009) as ethics in practice, the author incorporated reflexive discussions at intervals to discuss the ethical implications arising from work in the field to note whether informed consent was still applicable or needed to be renegotiated, whether the risk of any sort was being introduced to the participants, and reviewing the data as it was being collected to ensure that no revealing inclusions that could identify participants were present.

The context for the study: The PGCE initial teacher education programme

The initial teacher education (ITE) programme in which the participants for this study were enrolled was a University-School partnership model of teacher education, offering a Post-Graduate Diploma in Education-PGCE (Secondary) in the West Midlands. The Ofsted Initial Teacher Education Inspection Report (2015) rated the programme as good and outstanding in 2017, as 98% of the teacher trainees achieved outstanding and good results (Ofsted, 2017). The online course profile for the programme indicated a commitment to preparing pre-service teachers to achieve teacher standards. The profile also represented the knowledge and skills to be developed as the ability of the graduate to meet the required professional standards for Qualified Teacher Status (QTS) and awarded a PGCE qualification upon successful completion.

The programme design featured an ongoing and integrated focus on both campus-based sessions, which provide grounding in the principles of good teaching practice and school-based placements that allow teacher trainees to apply knowledge and experience to a wide range of classroom situations. The placements are undertaken in contrasting schools to provide teacher trainees with a broad range of experience in the city, suburban or rural schools, and independent or state sector.

Participants and data collection

Teacher educators

The teacher educators in this study are academics who are leaders in their field and have years of experience as teachers in secondary schools. Their teacher preparation practices are inspired by research within and beyond the School of Education. Eight (8) out of eleven (11) teacher educators volunteered to participate in interviews for this study. Interview data were complemented by attending two teacher educators meetings for assessment and grading of teacher trainees and discussion of results from school-based mentors' assessment reports.

PGCE teacher trainees

The teacher trainees in this study are post-graduate teacher training candidates offering a post-graduate teacher training course for one year (full-time) and, on successful completion, will achieve a Qualified Teacher Status and a post-graduate qualification, usually a Post-Graduate Certificate in Education (PGCE). As well as studying at the university, trainees also spend a minimum of 24 weeks in placement schools. The placement involves extensive teaching experience in schools with supervision support and mentoring provided by a school-based mentor working with a University-School Partnership model of teacher education. This provides excellent opportunities for teacher trainees to grow as teachers and reflective practitioners. The PGCE teacher trainees in this study have an undergraduate degree and are trained to teach 11-18-year-olds. Teacher trainees choose a subject to specialise in throughout the PGCE, usually related to the subject they studied to degree level. They specialise in one of the following subject areas: English, Geography, History, Mathematics, Modern Languages, Religious Education, Science (Biology, Chemistry, Physics, Physics with Mathematics) and Social Science. Fifty-six (56) out of one hundred and four (104) teacher trainees completed a semi-structured survey questionnaire. Data from this group was collected during University-based sessions and immediately after the second field placement (Phase B).

Method

This paper reports on and discusses the perspectives of teacher trainees and teacher educators throughout the one-year PGCE teacher training programme, drawing upon data from the study guided by the following research questions:

1. What core practices do teacher trainees and educators report as useful in facilitating the achievement of teacher standards?
2. How are these core practices enacted and implemented on the PGCE teacher training course in university-based sessions and field placements?

Methodology

These questions are addressed through an analysis of the survey, interview and the PGCE Professional Development portfolio analysis. Data were collected during the 2018 academic year from teacher trainees, expert teacher educators and PGCE Professional Development Portfolio. All PGCE Secondary teacher trainees were invited to complete an online/or print questionnaire containing items investigating core practices that facilitate the achievement of teacher standards. The survey was promoted to participants through email, faculty communication and on-campus print. The sample of those teacher trainees who chose to respond consisted of 56 teacher trainees out of 104. As can be seen in Table.1, there was a slight over-representation of teacher trainees taking science subjects. The self-selecting nature of the sampling resulted in a larger proportion of science teacher trainees. That said, the data analysis showed no notable patterning between responses from different subjects, suggesting that the survey data were not unduly imbalanced by these sampling biases.

The research was undertaken as an instrumental case study (Stake, 2005), seeking to gain insight into the perspectives and experiences of teacher trainees and teacher educators on the core practices that facilitate the achievement of teacher standards and how these core practices are enacted and implemented on the PGCE training course in university-based sessions and field placements. Cases were volunteer pre-service teachers from a single-year cohort within a secondary PGCE teacher education programme. A mixed methods approach was employed and, consistent with the phenomenological perspective, intended to gain knowledge ‘by understanding the direct experience of others, and did so through ‘engagement with the participants’ via interview, summarisation and analysis of the data (McMillan & Wergin, 2006, pp. 5–6). In order to maximise the depth and breadth of information about the experience of the pre-service teachers, interviews were carried out with each teacher educator during the training period.

To identify and document core practices of teacher preparation that facilitate achievement of teacher standards from the participant’s perspective, the teacher trainees’ and teacher educators’ perspectives and experiences of University-based sessions and field placement activities were investigated using a collective case study approach (Stake, 2005). Data collection included semi-structured interviews, which allowed participants to provide their perspectives on the core practices of the programme, their enactment, implementation and the context of the application to be probed and identified. Documents, including the teacher development record, those are detailing professional teaching standards and the PGCE programme design feature provided further contextual information. The results are presented in tabular and graphical form to present an overview of the core practices and activities, and then as a narrative using ‘thick’ description (Patton, 2015) to give the reader a clear and detailed sense of the participants’ perspectives, and the context of the core practices and activities that facilitate teacher trainee learning and achievement of teacher standards.

The literature review and professional development portfolio analysis to examine the core practices was undertaken for three months, from November 2018 to January 2019. Together with a literature review to identify research gaps, this informed the development of data collection instruments. Data were collected for three months, from March to June 2019.

Analysis and Analytical Framing

This article’s methodology and analytical framing draw from the advanced methodologies from several discrete research projects on core practices of grounding teacher education in practice (Core Practices Consortium, 2013; Jensen, Klette, Hammerness, 2018; Grossman, 2021).

Questionnaire survey

This paper examines data from questionnaire items that asked respondents to identify and justify the core practices they found useful during their university sessions and field placements. One closed and a two-part open-ended question were asked: *assign a level to indicate the usefulness of the practice for your achievement of teacher standards on the PGCE training Course, describe two examples of the most useful training activities on the PGCE training course, and how they are implemented to facilitate your achievement of teacher standards?* This data analysis took relatively straightforward thematic analysis (Braune & Clarke, 2006). This involved initial readings of all responses to the open-ended survey items to gain an overall sense of the data. The data were then selectively coded from this basis in categories identified and related to the study's aims.

Interviews

The researchers transcribed interviews with expert teacher educators verbatim and then imported them into NVivo for analysis. The transcripts were examined and coded to identify where the participants presented a core practice in either a theoretical or an applied manner. Having been coded, the researchers and expert teacher educators discussed examples of activities representing the core practice categories as a form of investigator triangulation to check and confirm their classification (Patton, 2015). Each instance was then analysed to identify emergent themes (Gay, Mills, & Airasian, 2012). To make the data more manageable and meaningful, these excerpts were developed into a narrative that captured and contextualized their situations (Creswell, 2014).

While this data helps ascertain the relative usefulness of a core practice at each interview phase, the context, nature and other details of the activities, such as how and why, were also important, as they explain the impact of the activity facilitating the achievement of teacher standards. Data on the usefulness and activity of the core practices are aligned with core standards to indicate the relative usefulness of the core practice in facilitating the achievement of UK teacher standards. These details can be seen in the narrative in Table 2.

Data and findings

The results of this study provide a clear indication of the core practices and how they are implemented within the teacher preparation programme. To help to convey their enactment, core practice activities are also provided. Data are presented in two ways: Tables and interview narratives/transcripts. To gain an overall sense of the programme's core practices, with consideration given to how the practice facilitated learning and impacted their achievement of teacher standards in the programme, examples of activities are also presented. Therefore, data presented in Table (2) and Figures 1 and 2 provide the core practices and the core practice activities and the varied perspectives on the usefulness of the core practices. Interview data from expert teacher educators are presented to provide an explanatory description focused on activities they do that facilitate the achievement of teacher standards.

Table 1: PGCE teacher trainees by subject distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid English	8	14.3	14.3	14.3
Mathematics	8	14.3	14.3	28.6
Science (Physics, Biology, Chemistry)	24	42.9	42.9	71.4
History	16	28.6	28.6	100.0
Total	56	100.0	100.0	

Table 2: Teacher educators' perspectives on the core practices and how they are enacted in the PGCE programme to facilitate the achievement of teacher standards

Teacher preparation context: University–school partnership model of teacher education			
Teacher Education Context/ setting	Description of core practice	Example of core practice activity	Teacher Standard/s
A. University -Campus Based	University sessions for professional studies	Direct instruction, modelling, Interaction and engagement with resources on the course blackboard. Teacher trainees discuss and relate what they are doing in University-based sessions to their own school-placement experiences	3
	University Sessions for curriculum knowledge development/ enhancement	Task conceptualization, direct instruction, individual tutorials.	3
	University sessions on appropriate pedagogy	Sharing instructional planning tools, identification and prioritisation of learning goals; mathematical tasks, technology tell and show sessions; Teacher trainees are given opportunities in the class to plan lessons or units and develop instructional materials and resources.	5 & 6
	University sessions subject days	Direct instruction, peer teaching, modelling, reading, review, analysis, materials and resources relevant to the national curriculum.	1-3

	University sessions required experiment days	Practice and rehearse teacher roles; teacher trainees are provided with opportunities in the class periods to practice, rehearse or approximate elements of practice, for example, practice leading whole-class or small group discussions and undertake experiments.	
	Opportunities to share good practice and resource person activities.	Teacher trainees share with resource persons on salient instructional features, technologies, instructional decision making	1,4,5,8,9
B. School Placement	Description of core practice	Example of core practice activity	Teacher Standard
	Supervision and mentoring by university tutors and school placement tutors during school placement	Plan, teach, observe lessons, and get feedback from school-based mentors and University teacher educators. Analyse students' learning; teacher trainees undertake activities such as analyzing students' learning; for example, K-12 students work	1-6
	Lesson observations by experienced staff resulting in written feedback	Focused lesson observation negotiated with the student teacher based on their targets	1-6
	Weekly school placement meetings	Meet with the mentor formally once a week for target setting and review, set strategies for meeting targets	1-9
	Individual action planning meetings	Review of progress of the student teacher against teacher standards, identifying areas of strength/ areas for development linked to the Assessment Review Document and review targets set.	1-8
	Reflective practice	Prepare reflective journal for individual action planning meetings and weekly meetings Develop directed reflective activities	1-8
	Documentation and record of evidence in the professional development portfolio	List and document a maximum of ten pieces of evidence for each standard, developing evidence trackers and reflective statements, developing a folder to show-case practice as evidence for achievement of Teacher Standards	1-8

Teacher educator perspectives of core practices and their enactment in the teacher training programme

During University sessions for appropriate pedagogy, modelling instructional strategies is one of the practice-based core practices indicated by teacher educators. For example, different teacher educators indicated that:

***TE1:** I explicitly model instructional strategies for group work, individual work and the technology used to enable teacher trainees to see models of teaching,*

***TE2:** The most important activity I do is modelling, especially in marking subject tasks, encouraging teacher trainees to think for themselves, students need to be sharing their experiences from school-placement experience, marking assignments and subjects tasks in the same way as you want them to work, Using group learning and active learning.....*

***TE3:** During subject sessions, ...I explicitly model instructional strategies for group work, individual work, paired work, embedding reflection in activities like, why have I set up a group activity in this way,.. organising reflection on activities undertaken during subject sessions at the university*

***TE 4:** Promoting the idea of teachers as researchers, beyond doing assignments to using research to inform their classroom practice, help them to value research and what it can add to their practice, and how research can help to solve classroom issues.....I use questioning to encourage reflection and criticality and get students to think for themselves.*

***TE 5:** Task conceptualisation and task work in University sessions, mathematical tasks at the university-address subject knowledge and the pedagogy in the classroom, for example, what would be the challenges, what would be the different levels for the different children? What are the particular examples, task work and the classroom? Their conceptualisation of the tasks addresses subject gaps, mainly the didactics of teaching mathematics, “mathematics task work and the classroom.”*

***TE6:** Practicalities during school placements such as what should they expect in the schools, how should they observe lessons? Planning lessons, practicalities, mathematics peer teaching lessons, how should they relate with their mentors, university assignments*

***TE 7:** Use of direct instruction as a teaching approach in mathematics education*

***TE8:** My three roles are organising individual tutorials focusing on aspects of their development such as subject knowledge development, reflective practice, university assignments,*

Observe their teaching practice in schools and make sure that the mentor’s judgement is accurate

Marking university assignments, for example, diagnostic assessments to assess the quality of their writing, a preliminary assignment before they start the course, a critical summary of the piece of work, and reflections on their experiences of observations in schools. And receive feedback on the two activities

School Placement PGCE Core Practices	Highly useful	% of Total	Useful	% of Total	Fairly Useful	% of Total	Not so Useful	% of Total	Totals
Supervision and mentoring by university tutors during school placement	27	48.21%	22	39.29%	4	7.14%	3	5.36%	56
Supervision and mentoring by school-placement mentors	37	66.07%	16	28.57%	1	1.79%	2	3.57%	56
Lesson observations by experienced staff resulting in written feedback	38	67.86%	14	25.00%	1	1.79%	3	5.36%	56
Weekly school placement meetings	18	32.14%	25	44.64%	9	16.07%	4	7.14%	56
Individual action planning meetings	20	35.71%	21	37.50%	11	19.64%	4	7.14%	56
Reflective practice	10	17.86%	27	48.21%	13	23.21%	6	10.71%	56
Documentation and record of evidence in the professional development portfolio	15	26.79%	26	46.43%	8	14.29%	7	12.50%	56

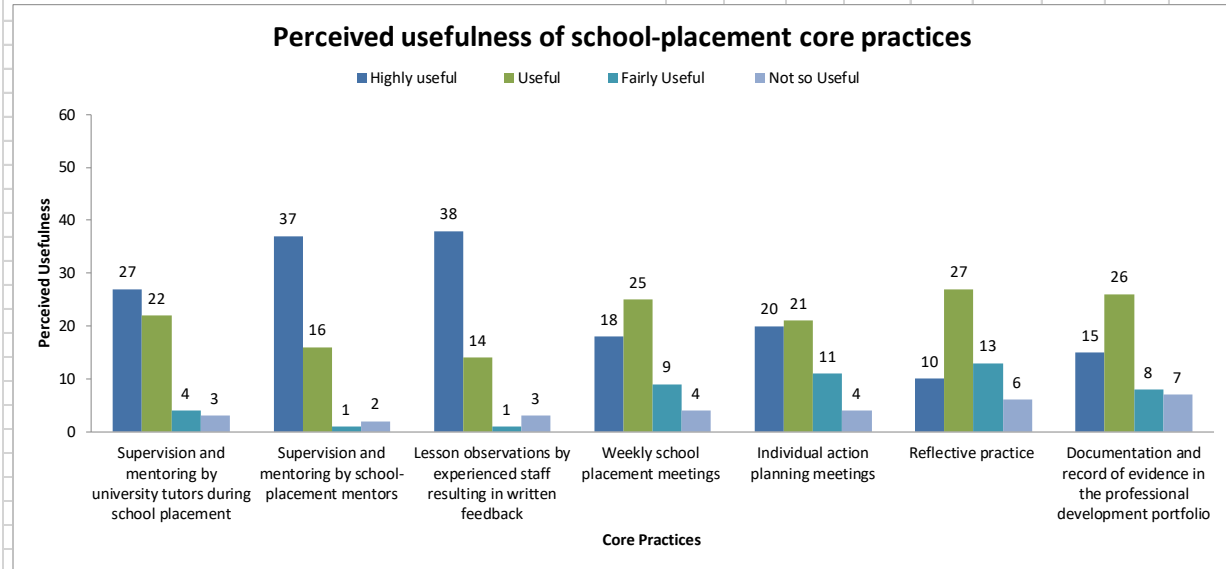


Figure 1. Perceived Usefulness of University-Based Core Practices

Figure 1. represents data on the usefulness of University-based core practices; University sessions subject days (62%) were perceived as highly useful by teacher-trainees, followed by University sessions for curriculum knowledge development/enhancement.

Perceived usefulness of school placement core practices

School Placement PGCE Core Practices	Highly useful	% of Total	Useful	% of Total	Fairly Useful	% of Total	Not so Useful	% of Total	Totals
Supervision and mentoring by university tutors during school placement	27	48.21%	22	39.29%	4	7.14%	3	5.36%	56
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Reflective practice	10	17.86%	27	48.21%	13	23.21%	6	10.71%	56
Documentation and record of evidence in the professional development portfolio	15	26.79%	26	46.43%	8	14.29%	7	12.50%	56

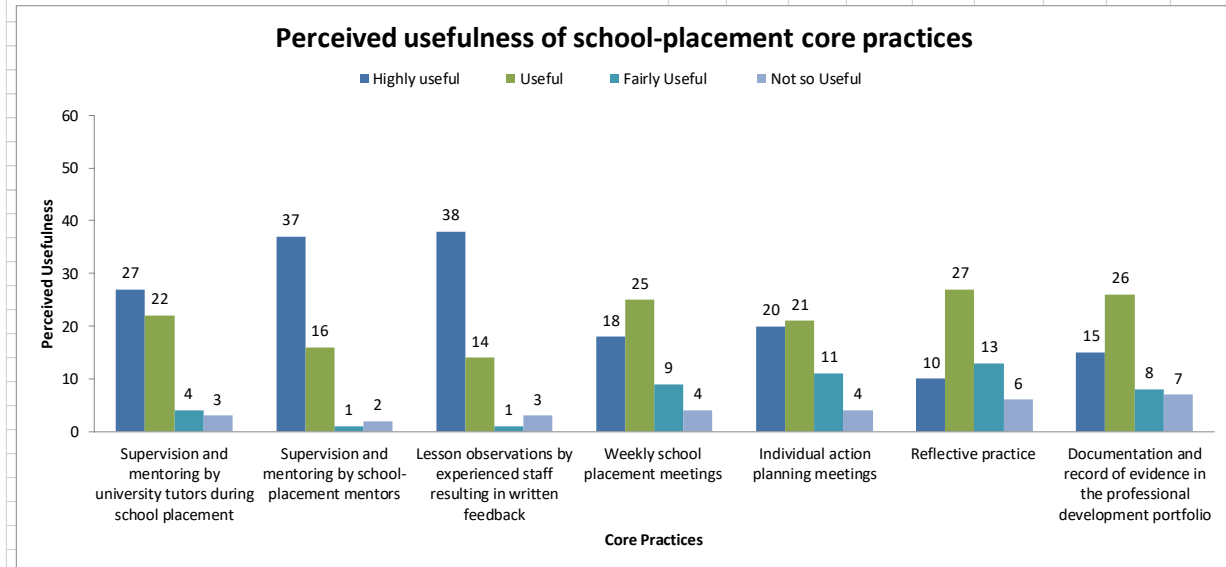


Figure 2: Perceived usefulness of School placement core practices.

Figure 2. represents data on the perceived usefulness of School placement- core practices and lesson observation by experienced staff, resulting in written feedback (67%), were perceived as highly useful.

Discussion and lessons for teacher education in Uganda

The practice-based core practices that are highly useful for facilitating the achievement of teacher standards as reflected in both teacher educator perspectives and the PGCE teacher trainee survey included: a) University-based core practices such as University sessions on professional studies; curriculum knowledge development/enhancement; appropriate pedagogy; subject days; required experiment days; opportunities to share good practice with resource person activities. b. School placement core practices such as supervision and mentoring by university tutors; school-placement mentors; lesson observations by experienced staff resulting in written feedback; weekly school placement meetings; individual action planning meetings; reflective practice; documentation and record of evidence in the professional development portfolio. Intentional implementation of these practices can contribute to improvements in teacher education.

The teaching of core practices, as a central focus in teacher preparation programmes, needs to be complemented and situated in the vision of the teacher's role and a reorientation of the foundations of education to be more compatible with a practice-based orientation. Implementing these core practices within a strengthened University-School Partnership model can effectively contribute to the achievement of teacher competencies stated in the Uganda National Teacher Policy (NTP, 2019).

The results further inform that teacher educators will need to provide greater assistance to pre-service teachers as they learn the conceptual and practical tools of any specific subject and practice. This will require moving away from the more common method in teacher education of presenting principles for teaching or academic knowledge in university courses, asking pre-service teachers to observe a related strategy in their field placements, and then requiring them to enact that strategy on their own. This method of providing teachers with academic knowledge that they then apply in practice continues to reinforce a dichotomous view of theory and practice and needs to be addressed through a paradigm shift of practice-based core practices.

This study contributes to broad improvements in teacher preparation in two ways. First, this study provides evidence about what particular practices of teaching and teacher education are likely to help teachers achieve teacher standards. If practice-based practices are widely used, perhaps the narrative about the state of teacher education will change to champion a strong University-school practice-based teacher education model that not only focuses on providing ample practice opportunities but also modelling, feedback and adjustment. Where research on teacher preparation programmes shows that such desired practices are not being adopted, efforts at improvement can focus on those gaps. In either case, research such as this informs programme review and change. Moreover, the deliberate enactment of particular high-leverage practice-based teacher education practices by teacher educators and teachers in secondary school classrooms –either virtually online complemented with practice-oriented experiences of practising teachers virtually in the teaching of core teaching practices in university-based courses and physically during field placements.

Conclusion

The study explores what core practices teacher trainees and teacher educators report as being useful in facilitating the achievement of teacher standards and how the core practices are enacted

and implemented on the PGCE teacher training course in University-based sessions and field placements. The results show that these practices are university-based and school-placement core practices and are implemented in a university-school partnership collaborative model. The results suggest that teacher education can be improved and strengthened by identifying and collaboratively implementing a set of practice-based core practices that serve as a core curriculum of teacher education or a teacher education pedagogical pattern and using a practice-based approach to prepare pre-service teachers to use these practices systematically.

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