

Effective inclusive teacher education for special educational needs and disabilities: some more thoughts on the way forward

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This study sought to identify the principles and practices underpinning effective inclusive teacher education for special educational needs (SEN) in ordinary schools through an inclusive action research project. The findings demonstrate that where practitioner development involves critical-theoretical, reflexive, research-oriented collaborations among a professional learning community, practitioners become more confident and skilful in enacting inclusive practice. This community was formed in the context of a school-university partnership and included pre-service teachers, experienced teachers, teaching assistants and university tutors. Its findings cast serious doubt over the efficacy of de-intellectualised, 'on the job' training models favoured by policy makers in England and elsewhere.

Key words: Inclusion, teacher education, special educational needs, disability, inclusive pedagogy, inclusive action research

1. Introduction and context

This paper explores an essential question: *What models and pedagogic frameworks are effective in developing skilled, confident and effective teachers who can successfully include learners with special educational needs (SEN) within mainstream classrooms?* Drawing on international evidence and reporting the findings of an important research study, its purpose is to inform teacher educators and policymakers about pedagogic design for effective inclusive teacher education. The research reported here sought to bring together, test out and add to what is currently known or hypothesised about efficacious approaches so this paper

presents a thorough and broad literature review so that its contribution can be fully understood. Following this, an account of the complex methodological design is provided with reference to context, research principles, research tools and the challenges posed by its core questions. Findings are analysed and discussed with the purpose of providing practical direction through the assertion of key recommendations for all providers of teacher education.

In this paper, the term *Inclusion* refers to the process through which education systems respond to diverse learners in ways that enable participation, equal opportunities, respect for difference and social justice. It places particular focus on the inclusion of learners with special educational needs within mainstream classrooms though the complexities of this term are further explored in 2.5.

The question raised by this paper is pertinent worldwide but has particular currency in England where a review of initial teacher 'training' (ITT), (Carter, 2015) has emphasised the urgent need to improve the SEN elements of teacher preparation programmes. Citing Burns and Mutton (2013), Carter (2015, p.21) recommends models of 'clinical practice' whereby pre-service teachers draw on 'the practical wisdom of experts' whilst engaging in rigorous trialling and evaluation so that they might 'develop and extend their own decision making capacities or professional judgements' (Carter, 2015, p.22). However, there may not be a surfeit of 'practical wisdom' about inclusive practice on which to draw nor a tradition of clinical practice disruptive enough to the status quo. For this reason, McIntyre insightfully argued that inclusive pedagogy could be innovated in teacher education through particular models of partnership:

...if a partnership team of school-based and university based teacher educators agrees that a new practical idea, even a complex idea such as inclusive pedagogy, merits a place in the ITE curriculum, then student teachers will not only be introduced to the relevant practical suggestions (clearly conceptualised and rigorously justified) in the university, but will also have opportunities in the schools to explore their feasibility and to debate its merits of practicality.

McIntyre, 2009, p.605

McIntyre (2009) proposed effective models as situated within *professional learning communities* comprising pre-service teachers, serving teachers and university tutors since practices in schools were likely to be under-developed as models of inclusive pedagogy. McIntyre's ideas were published posthumously in a special edition of Teaching and Teacher Education as 'The difficulties of inclusive pedagogy for initial teacher education and some thoughts on the way forward' (McIntyre, 2009). The research reported in this paper took McIntyre's proposal forward in ways that also addressed international concerns about inefficacy. For example, the United Nations Educational Scientific and Cultural Organisation (UNESCO) reported an international commitment to ensuring inclusive systems of education given that such systems are *educationally justified* - adaptation to diversity benefits all (UNESCO, 2009). They are also *socially justified* since inclusion builds positive attitudes for a just society. Finally, they are *economically justified* given complex segregated and specialised services are expensive. Pre-service teacher education and Continuing Professional Development (CPD) is regarded as a decisive factor in developing inclusive education for SEN (Abbott, 2007; Forlin, 2010; Forlin 2012a; Forlin, 2012b; Florian & Rouse, 2009; Vickerman, 2007). There is recognition that 'the challenges faced by

the teaching profession are increasing as educational environments become more complex and heterogeneous' (European Parliament, 2008, p.2). In the Organisation for Economic Co-operation and Development (OECD) survey of teacher development for inclusion (OECD, 2010), 96% of pre-service teachers and 65% of serving teachers reported that diversity issues were covered in their teacher preparation programmes in some form. 47% of pre-service teachers and 66% of serving teachers judged that current teacher education was offering little in the form of *effective* preparation. This suggests that *contemporary models of teacher preparation may be ineffectual, even when giving attention to diversity issues*.

In England, Davies & Garner (1997) and the Teacher Training Agency (TTA) claimed that the curriculum for pre-service teachers was not preparing them for the practical challenges of inclusion (TTA, 1997). This view continues to predominate in England (Florian, 2010; Forlin, 2010a; Hodkinson, 2009; McIntyre, 2009; National College of Teaching and Leadership (NCTL), 2012; Rouse, 2010; Slee, 2010). This is also true internationally (Engelbrecht, 2013; United Nations Educational, Scientific and Cultural Organisation, (UNESCO), 2009). In summary, across the international community the literature reports on the poor preparation of beginning teachers for inclusive practices. Empirical research exploring the relative effectiveness of particular pedagogic models is reported as lacking. This paper explores the complex and interrelated set of conditions, processes and activities that might comprise effective inclusive teacher education for SEN.

2. Evidence and hypotheses related to effective inclusive teacher education: review of the literature

A broad review of the literature is presented in what follows to enable identification of the principles and practices that might underpin efficacious inclusive teacher

education. This leads to an account of methodological design, which itself was drawn from the evidence arising in the literature.

2.1 The importance of collaboration

There is widespread evidence that inclusive practices are most likely to emerge from collaborative action, reflection and enquiry (Argyropoulos & Nikolarazi, 2009; Florian & Rouse, 2009; Sin & Law, 2012; Waitoller & Artiles, 2013). Opportunities for sustained, thoughtful enquiry in an authentic classroom context have been identified as particularly propitious (Hadfield & Chapman, 2008; Jobling & Morris, 2004). For example, Argyropoulos and Nikolarazi (2009) reported on how an action research network formed between pre-service teachers, class teachers and university tutors enabled the inclusion of two children with sensory impairments. Also, in their in-depth study of four schools, Black-Hawkins, Florian and Rouse (2007) made a powerful case for the importance of collaboration between practitioners for inclusion. They described inclusive cultures as those in which *collective action* is embedded. Though Carter (2015) and the Teaching Standards (DfE, 2012) have acknowledged the importance of working effectively with others, other policy statements in England such as the Inclusion statement in the National Curriculum (Department for Education, (DfE), 2013), have portrayed a more individualised image of the inclusive teacher as a *lone perfectionist*. This individual can eradicate and make redundant, all of the complex factors that might come into play when barriers to learning are being created or diminished:

With the right teaching, that recognises individual needs, many disabled pupils have little need for additional resources beyond the aids they use as

part of their daily life. Teachers must plan lessons so that these pupils can study every national curriculum subject. Potential areas of difficulty should be identified and addressed at the outset of the lesson.

DfE, 2013, p.8

This paper exposes the extent to which official discourses might be contradictory or ambiguous when seeking improvements to teacher education in this area. Teacher education may be charged with simultaneously complying with a system of individualised competence standards whilst building programmes that resist them in favour of more collaborative modes of teacher development and assessment.

Hence, the problem of inclusive pedagogy is drawn as much from the policy context as it is from those charged with teacher education. These macro issues represent the wider social structures that impact upon the work of teacher educators and are discussed in 2.5 and 2.7.

2.2: Adopting a research orientation

In the UK, the British Educational Research Association (BERA) was commissioned to conduct an enquiry into the impact of *research oriented* models of teacher education by the Royal Society for the Arts (RSA) (BERA RSA, 2013). In an interim report, BERA RSA (2013) offered strong support for research informed clinical practice (ROCE) as a means of effective teacher education (Beauchamp et al., 2013; Mincu, 2013; Tatto, 2013; Waff, 2009; Winch, Orchard & Oancea, 2013). Burns and Mutton (2013) reported that such approaches enabled new teachers to work within established communities of practice (Wenger & Snyder, 2000) so as to engage in forms of enquiry that focus on diversity and instructional techniques. In this context, inclusive pedagogy can develop.

Consideration of what might characterise an effective model of inclusive teacher education is further supported through reference to those jurisdictions that are particularly effective in securing high attainment for all, notably Singapore (Tatto, 2013, Goodwin, 2012) and Finland (Malinen & Savolainen, 2012; Naukkarinen, 2010; Sahlberg, 2012). Common to these countries is a systematically planned, well resourced, values-based national strategy for teacher education. There is also a concern to ensure that teachers engage in and with research through a culture of collaborative professional learning and enquiry (Guðjónsdóttir, Cacciattolo, Davis, Kelly & Dalmau, 2007; Sahlberg, 2012; Tatto, 2013). Though it is not possible to separate models of teacher education and their impact from the wider culture, history and values of the societies that enact them, *research oriented teacher education* is widely promoted across the literature as a tool for building inclusive practice. Darling-Hammond (2006) argued that effective models prepare teachers to be expert collaborators and classroom researchers. This is because they must continually adapt *extensively diverse* teaching strategies to an *infinitely diverse* learner population. In addition, as learner populations change in a world that is itself rapidly changing, it is important to acknowledge that the 'evidence' of the past (even the recent past) may not be fitting for the present.

From this perspective, research oriented clinical practice (ROCE) (Burns & Mutton, 2013) might be better conceived as reflexive enquiry engaged with the *here and now*. The idea that pre-service teachers might turn to 'evidence' (Carter, 2015) to strengthen their professional judgement does imply autonomy but the conception of ROCE in the *Carter review of Initial Teacher Training* is underdeveloped since it neither emphasises collaborative enquiry or ROCE as a reflexive, critical-theoretical process (see 2.4). It also assumes that the evidence base for inclusive practice is

well formed and stable in character oversimplifying the context in which inclusive practice is likely to emerge (see 2.5 and 2.7). The methodological design for this study adopted a ROCE in order to emulate the recommendations made in the literature with particular reference to the model of partnership proposed by McIntyre (2009) and with attention to the need to expose complexity (see 2.5).

2.3: The importance of carefully planned field experiences

Jones and Straker (2006) found that students and mentors prioritised every day and pragmatic, concerns such as the competencies that needed to be demonstrated whilst placing less importance on critical theorising. This phenomenon is reported elsewhere in the literature and is regarded as a consequence of a competence culture (Moran, 2009). Atomistic competence targets divert attention to the surface features of teaching, promoting emphasis on performance rather than engagement with the complex, political and dilemmatic challenges of effective practice (Cain, 2009; Hurd, Jones & McNamara, 2007; Pitfield & Morrison, 2009). The literature makes a clear case for the importance of carefully structured field experiences as a way to develop self-efficacy for SEN having noted the importance of critical engagement with these experiences that moves beyond the technical or practical aspects of learning to teach (Lancaster & Bain, 2007; Molina, 2006; Sharma, Forlin & Loreman, 2008). Such modes of criticality are further discussed below.

2.4 Critical theoretical approaches: Inclusive practice as a matter for the head, heart and hands

It has been widely proposed that the task of teacher preparation programmes is to establish beginning teachers as *critical activists*, capable of deconstructing exclusive practices (McLeskey & Ross, 2004; Waitoller & Artiles, 2013). However, it is important to understand how challenging a project this for student teachers at the

start of their careers when they may be relatively powerless. Stoddard, Braun, Hewitt and Koorland (2006) found that beginning teachers were likely to adopt the instructional behaviours of their mentors or those arising from their own memories of schooling. The relative impact of the alternatives offered by university was poor in relation to the influence of dominant and arguably, traditional practices in schools. *Breaking the cycle of traditionality* (Korthagen, Loughran & Russell, 2006) is a necessary step towards a more inclusive system and one that may require considerable reform across teacher education. McIntyre (2009) noted that progress in inclusive teacher education will be thwarted if attention to critical theorising is not in place. His model called for substantial changes to traditional partnerships since schools have not been geared to facilitate the professional learning of adults given their remit to educate children - reforming models of partnership may transform this culture with ensuing benefits for the development of inclusive practice.

2.5 The contested and ambiguous nature of inclusive practice

The challenges set for inclusive teacher education seem exacerbated by the contested nature of inclusion and inclusive practice and the uneasy fit between these concepts and the identification of an 'othered' category of learners labelled with 'SEN' (Jordan, Schwartz, McGhie & Richmond, 2009; Liaisidou, 2012). Further, the concepts of 'inclusion' and 'inclusive practice' are variously interpreted and contested (Liaisidou, 2012). For example, one conceptualisation of 'inclusion' is associated with movement of learners from special education to mainstream settings but with the requirement that those settings are responsive to an increasingly diverse population (Barton, 2008; Barton & Clough, 1995; Mittler, 2000). This policy has been vociferously critiqued as unrealistic (Croll & Moses, 1998; Lindsay, 2003) with some reference to the unfair burdens it places on practitioners and the need for major

policy reform to secure sustainability (MacBeath, Galton, Stewart, MacBeath & Page, 2006; Wedell, 2008). Hence, 'inclusion' is an uncertain concept that operates within a contradictory and unsettled political, theoretical and practical context (Liaisidou, 2012; Hegarty, 2001; Howes, Grimes & Shohel, 2009). Further, it must be acknowledged that teacher educators, pre-service teachers and serving teachers may take an uncertain and ambivalent commitment to inclusive education in wider policy and parlance as a sign that they do not have to engage in pursuing it or in striving to make it work. In the face of this ambivalence and ambiguity, the argument that inclusive teacher education must include a critical theoretical dimension is significantly present in the literature (Forlin, 2010; McIntyre, 2009; Moran, 2009; Author, 2015 [details removed for peer review]; Rouse, 2010; Slee, 2010). When making recommendations for the future direction of teacher education in Scotland, Donaldson (2011) argued that programmes should develop reflective activists who are willing to abandon the approaches that have sustained pernicious inequalities in favour of more innovative and just ones. In some countries (such as Scotland, Singapore and Finland), models of teacher preparation programmes and CPD are developed with a concern to support and foster this kind of professional autonomy (Beauchamp, Clarke, Hulme & Murray, 2013; Sahlberg, 2012; Tatto, 2013;). However, in England, policy for teacher preparation programmes has continued to move towards reducing the autonomy of teachers and teacher educators through emphasizing centralised regulation and control (Darling-Hammond & Lieberman, 2012; MacBeath, 2012; Winch et al., 2013). This may not create the conditions in which practitioners can operationalise their 'practical wisdom' (Carter, 2015) in ways that mediate the potentially oppressive impact of external cultures such as the

enforcement of particular curricula or teaching styles not fitting with the needs of learners with SENs (see 2.7).

2.6 The values and beliefs dimension of effective inclusive teacher education

Slee (2010) argues for the primacy of political and cultural dimensions in inclusive education, noting that technical issues are best positioned as secondary concerns. More widely, there is a concern to give attitudes, beliefs, theory and practice a more equal place in teacher education (Cochran-Smith & Dudley-Marling 2013; Rouse, 2010). Within this multi-dimensional conception of teacher education there is desire to promulgate a culture of critical deconstruction (Rouse, 2010; McIntyre, 2009). Slee (2010) argues that being reflexive is a condition for transformation, arguing that student teachers need to be prepared to enter the debate on curriculum rather than simply installing it as it stands. However, official literature is less likely to report this as necessary (Carter, 2015; DfE, 2013; House of Commons, 2006; Ofsted, 2009;), tending to conceptualise preparation for inclusive classrooms in terms of fixed competencies operated (somewhat compliantly) within stable and politically neutral contexts. In contrast, the literature acknowledges that teacher education is set within a wider context where hegemonic forces influence its efficacy, giving additional support to the idea that teacher education must develop forms of pedagogy that enable student teachers and more experienced practitioners to understand and manage the contradictory, political nature of inclusive practice and their own position within it. This concern has been taken forward in the design of the methodology (see 3.1).

2.7 Deconstructing discourses: SEN and expertism

2.7.1 The discourses of SEN

Legally in England, the term SEN signals the right of pupils with learning difficulties and or disabilities to a resource that is *additional to or different from* that which is usually provided (Children and Families Act, Great Britain, 2014). Pupils labelled with the term 'SEN' are those who have significantly greater difficulty learning than their peers and/or a disability that might hinder their access to educational opportunity. However, the contested nature of the terms 'SEN' and 'inclusion' present real challenges to practitioners since they are not always compatible with one another and may be pulling teachers in two directions: one which includes all and one which 'others' and pathologises some (Barton & Clough, 1995; Howes et al., 2009). Where teacher education fails to expose and deconstruct these dilemmas, teachers may be left feeling compromised and inadequate, with the risk that they might disengage from the pursuit of more socially just practices.

2.7.2 The discourses of 'expertism'

Relatedly, 'expertism' constructs Special Education as technical and specialist and relates the concept of 'need' to personal pathologies requiring prescription pedagogies outside the skills base of mainstream teachers. Frequent in the literature is the claim that such discourses strengthen divisive constructions of education. (Boling, 2007; Florian, 2010; Forlin, 2010; Rouse, 2010; Slee, 2010). Thomas and Glenny (2005) locate their origins in the rationalist epistemologies which have perpetuated a preoccupation with correctives, special techniques and cures, asserting that this has led teachers to believe that they do not have the knowledge and skill to teach all children. Thomas and Glenny (2005) call for the attenuation of rationalist epistemologies in teacher education and for the advancement of

practitioner knowledge and enquiry in order to counter *expertism*, a discourse which may serve to disenfranchise teachers from SEN. This theory is widely supported (Forlin, 2010; Rouse, 2010). However, calls to reconstruct 'SEN' are at odds with official discourses. For example, The Teaching Standards (DfE, 2012) assume the presence of 'distinctive' pedagogies:

Teachers must: Have a clear understanding of the needs of all pupils, including those with special educational needs; those of high ability; those with English as an additional language; those with disabilities; and be able to use and evaluate distinctive teaching approaches to engage and support them.

DfE, 2012, p.8

There is some support for a teacher preparation curriculum that covers specific conditions and related distinctive pedagogies and an accompanying assumption about the conceptual stability of these (Abbott, 2007; Carter, 2015; DfE, 2012; House of Commons, 2006; Mintz, 2010; Ofsted, 2009; Winter, 2006). However, there is more interest in shifting the gaze from pathology and individual deficits towards capacity discourses and personalisation. Consequently, teacher education may have a challenge since it must deliberately resist the discourses of *expertism* even where these are endorsed in policy and in the structure of teacher training itself. When considering the design of efficacious programmes of professional development, it is important not to oversimplify the contradictory context in which this plays out.

2.8 The relationship between theory and practice

Schepens, Aelterman and Vlerick (2009) argue that traditional approaches to teacher education have been characterised by fragmented courses where universities

provide the knowledge (or the theory) while schools provide the setting where student teachers can apply those theories with little effort to systematically bridge the two. Korthagen et al., (2006, p.9) name this the *theory into practice* model. They criticise it vigorously since it does not lead to innovation or transformations in practice because of the phenomenon of the *reality shock* experienced by beginning teachers. Korthagen et al., (2006) report that the *reality shock* triggers didactic teaching and a dislike for reflection and theoretical depth. Stoddard et al., (2006) also found evidence to suggest that beginning teachers revert to instructional behaviour used either by a mentor or from memory of their own schooling. Elliott provides an elegant explanation for the 'reality shock' phenomenon, noting that:

The perceived gap between theory and practice originates not so much from demonstrable mismatches between the ideal and practice but from the experience of being held accountable for them.

Elliott, 1991, p.47

This seems particularly pertinent given widespread evidence that teachers endorse the principle of inclusion but doubt their capacity to enact it successfully (Macbeath et al., 2006; OECD, 2009; OECD, 2010). The *reality shock* (Korthagen et al., 2006) may explain why teachers report receiving inputs on diversity in their teacher preparation courses whilst still feeling poorly prepared (OECD, 2010). Arguably, what is needed in teacher preparation and CPD is a model that provides systems of collegiate support enabling professionals to be better at accepting individual and collective responsibility for diverse learners (Florian, 2012) whilst operating innovative practices.

2.9: Research questions for the study.

Relatedly, the central questions posed by the research operated across two distinct but connected dimensions. The *internal dimension* centered on proximal concerns as these arose in the participants' day to day professional lives. This dimension was served by the implementation of three project actions as described in 3.3. The *potentially transferable dimension* sought outcomes that had a more distal relevance through providing an account of how inclusive teacher education could be made more effective. This is relevant to the wider professional community and academy. The potentially transferable dimension was served by methods additional to a traditional AR approach as described in 3.4 and 3.5.

2.9.1 The internal dimension

As part of the '*modus operandi*' of the Inclusive Action Research (IAR) project aims were developed by the participating group collectively and democratically as follows:

- How can we develop the understanding, skill and confidence of all school-based participants for SEN and inclusive practices?
- How can we develop the understanding, skill and confidence of student teachers on placement in the school for SEN and inclusive practices?
- How can we enhance the inclusive educational experience of children in the school?

2.9.2 The potentially transferable dimension

Emerging from the internal dimension, the potentially transferable aim was:

- What are the essential principles and practices that underpin effective models of teacher education for inclusive practice?

The methodology drew emphatically on the evidence and hypotheses emerging from the literature about what might underpin effective teacher education that include:

- Collaboration and teamwork (Argyropoulos & Nikolarazi; Sin & Law, 2012; Waitoller & Artiles, 2013).
- The adoption of research oriented clinical enquiry in the context of authentic classroom practice with a focus on instructional techniques and outcomes for learners (Burns & Mutton, 2013; RSA BERA, 2013).
- Carefully planned field experiences (Darling-Hammond, 2006; Lancaster & Bain 2007; Molina, Sharma, Forlin & Loreman, 2008) which include opportunities for reflexive work to deconstruct discourses and traditional practices and explore values and beliefs (Korthagen et al., 2006; McLeskey & Ross, 2004; Waitoller & Artiles, 2013).
- Linking initial teacher education to continuing professional development in the context of professional enquiry through partnership (McIntyre, 2009).

For these reasons, the methodology occupied a critical theoretical framework and adopted a participatory approach in the form of IAR (See 3.1).

3.1: The methodological framework for the study: Inclusive Action Research

As noted in section 2.9, the research process, located in England, combined a participative IAR project situated within one partnership school with other research tools (see Table 2) to enable analysis of the conditions, processes and activities that may be relevant to the development of pre-service teachers and serving teachers in the area of SEN and inclusive practices. IAR is not entirely distinctive in the field of critical-theoretical action research (AR) since both IAR and AR share a concern to improve the social justice of practices through making small, local changes. Further, both foreground collaboration as a means of securing improvements to practice and competency whilst using reflective and reflexive work as a vehicle for professional learning.

However, O'Hanlon (2003, p.38) argues that IAR is particularly congruent with research focussed on inclusive practice since it can operate inclusively *at the same time as* promoting inclusive educational experiences; 'the action research process for inclusive practice is also action research as inclusive practice'. IAR was adopted as a central methodology because it offered a framework for pursuing the construction of inclusive practice through a democratic, participative process emulating the model proposed by McIntyre (2009).

In adopting IAR, this study also made an important contribution to the knowledge base for inclusive teacher education. Waitoller and Artiles (2013) have identified the need to investigate what happens when local actors (such as teachers, student teachers and university tutors) enter one another's spaces in ways that challenge the orthodoxy of prevalent practices and belief systems in those spaces. IAR offered a basis for evaluating and accounting for this in a valuable way.

3.2 The research site, context and participants

3.2.1 The University

The University is a provider of initial teacher education in England with a large number of primary undergraduate and postgraduate places and a smaller number of secondary postgraduate places. It operates a collaborative model of partnership where schools and a Higher Education Institution (HEI) share responsibility for designing, delivering and assuring the quality of the programmes. In 2010 and 2015, the provider was judged as 'outstanding' by Ofsted who commended the harmonious relationship between schools and university and the positive impact of this on students' attainment and readiness for employment (Ofsted, 2010; Ofsted, 2015).

3.2.2 The school

The school was a large primary and nursery school that has worked in partnership with the HEI for ten years. It hosted several students for placements each year and had a local reputation for being an inclusive school that worked effectively with children who have special educational needs and disabilities. The IAR took place within this school over a period of 22 months.

3.2.3 The Participants

There were a total of 22 participants in the project: 5 were teaching assistants, 10 were pre-service teachers and 7 were serving teachers (see Table 1). The participants chose to be engaged in the project through an ethical consent process. The pre-service teachers were completing their assessed practicum in the school and their placement in the school was a consequence of the usual and natural processes through which particular students were allocated to particular schools. Phase 1 and 2 took place over consecutive academic years.

Table 1 Participants in the project and their roles

Participant (pseudonym)	Role	Years' Experience	Involved in Phase 1 (\ denotes participation)	Involved in Phase 2 (\ denotes participation)
Preservice Teachers (10)				
Claire	Undergraduate programme (3 rd year)	3 rd practicum	\	
Elizabeth	Undergraduate programme (3 rd year)	3 rd practicum	\	
Kirandeep	Undergraduate programme (3 rd year)	3 rd practicum		\
Jennifer	Undergraduate programme (3 rd year)	3 rd practicum		\
Lisa	Undergraduate programme (3 rd year)	3 rd practicum		\
Lily	Undergraduate programme (4 th year)	4 th practicum		\
Lorna	Postgraduate programme	4 th practicum		\
Jenny	Postgraduate programme	1 st practicum	\	
Christine	Postgraduate Programme	1 st practicum		\
Rebecca	Postgraduate programme	2 nd practicum	\	
Teaching Assistants (5)				

Michelle	Teaching Assistant (Year 1) Supporting a child with SENs	1 year	\	\
Laura	Teaching Assistant (Year 5) Supporting children with SENs in KS2	5 years	\	\
Laura	Teaching Assistant (Year 5) Supporting children with SENs in KS2	5 years	\	\
Harriet	Teaching Assistant (Year 4) Supporting a child with Down Syndrome.	6 years	\	\
Sacha	Teaching Assistant (Year 1)	6 years	\	\
Selina	Teaching Assistant (Year 4)	8 years		\
Serving teachers (8)				
Charlotte	Class Teacher (Year 3) Newly Qualified Teacher	1 year	\	\
Anna	Class Teacher (EYFS) Mentor to two undergraduate students (Claire and Jennifer)	11 years	\	\
Elaine	Assistant Head Teacher (Year 4) Mentor to a postgraduate student (Lorna)	12 years	\	\
Jane	Class Teacher (EYFS) Mentor to two undergraduate students (Elizabeth and Lisa)	12 years	\	\
Alison	Assistant Head Teacher Special Needs Co-Ordinator	15 years	\	\
Cerys	Teacher (EYFS) Mentor to an undergraduate student (Kirandeep)	25 years		\
Veronica	Teacher (Year 1) Mentor to a postgraduate student (Christine)	28 years		\
Laura	Teaching Assistant (Year 5) Supporting children with SENs in KS2	5 years	\	\
The University Tutor	University tutor – research facilitator and participant	23 years	\	\

3.2.4 The role of the University Tutor

The University tutor was a participant in the IAR but was also the Research Facilitator (RF) leading data collection and analysis in the context of a democratic IAR process.

3.3: The research story

As noted, the IAR spanned 22 months with 22 participants. Following establishment of conditions for consent, the researcher met regularly with the participating group to draw up collective aspirations and thereafter to provide spaces for evaluative, reflective and reflexive work as is fitting in IAR. A number of strategies were used to ensure that these meetings were democratic since it was important to capture all voices. For example, a website was established so that participants could post reflections. Validated minutes were used to ensure accurate and comprehensive summaries of all stages in the research process. Three *project actions* (see 3.3.1 - 3.3.3) were designed by the participating group as fitting ways to work towards the group's aims and aspirations. The research process was also inclusive of 'study days' where all participants would work together to analyse the data and where the university tutor would support participants in reflective and reflexive work towards improved practice and critical understanding.

3.3.1 Project Action 1(PA1)

PA1 involved a number of lesson study activities in which a student teacher and more experienced teacher use observation data as a basis for improving the inclusive impact of their teaching. Having selected a group or pupil who might particularly gain from their focus, the student and teacher analysed the observation data and then co-planned and co-taught a lesson designed to enhance the participation, success and progress of this group or individual. Thereafter, observation data was used to evaluate the impact of this practice on this focus group or pupil in order to inform continuing improvements or simply to maintain good practice. PA1 was underpinned by contemporary theories of effective teacher development and recognition of the place of lesson study as a method for action

research (Lewis, Perry & Friedkin, 2009). Significant is the manner in which lesson study *exemplifies research oriented clinical practice* (Beauchamp et al., 2013; BERA RSA, 2013) having a particular focus on instructional techniques and outcomes for individual learners in an authentic context (Darling-Hammond & Richardson, 2009; Darling-Hammond and Lieberman, 2012; European Association for Development in Special Needs Education (EADSNE), 2010). It also models a practice into theory approach since participants look to the literature for insights that might support the development of their pedagogy.

3.3.2 Project Action 2 (PA2)

PA2 focussed on the processes of personalised assessment and planning and was termed the 'personalised learning planning (PLP) process' within the project. Mentor and student teacher would select individual pupils or groups of pupils within the practicum class who might benefit from more intensive personalisation or innovative pedagogic responses (at a whole class level). In collaboration with the mentor and other members of the teaching team, the student would carry out a holistic assessment that captured strengths, difficulties, preferences, significant voices (e.g. parents and other members of the teaching team) and the child's voice. The student teacher then set a goal for the end of the placement that would improve participation, progress or success for the child or group. For example, 'Carla will be able to talk about friends she has learned with in class,' or 'Michael will be learning with others' or 'Jenny will make progress in her writing.' The student teacher then designed more specific progress goals week by week, noting how their whole pedagogic approach would be adapted in pursuit of that goal. This task was designed to promote the positive discourse of diversity (celebration of the richness of human variety) over the negative discourse of disparity (OECD, 2010, p.21). In this way, PA2 was formed

from critiques of the norming consequences of current approaches to planning for SEN. (Black-Hawkins & Florian, 2011; Florian, 2007; Florian, 2009; Hart, Drummond & McIntyre, 2004). It also enabled evaluation of the impact of Professional Development (PD) on pupil outcomes, providing both evidence of impact and a forum for reflection on how to improve practice.

3.3.3 Project Action 3 (PA3)

PA3 involved the planned and deliberate involvement of teaching assistants in supporting student teachers. Teaching assistants were invited to attend a training session. They were given guidance in how to support students in general ways but also in observing student teachers and providing verbal or written feedback. Additionally, some teaching assistants were involved in providing workshop sessions attended by all of the students placed in the school. These workshops focussed on communication, working with parents, nurture groups and behaviour and reflected some of the specific roles that teaching assistants had in the school. PA3 was influenced by studies that emphasise collaboration and collective action as a necessary condition in inclusive classrooms and the position of teaching assistants within this (Carrington & Robertson, 2006; Devecchi, Dettori, Doveston, Sedgwick & Jament, 2012; Groom, 2006). Project actions were evaluated in a systematic way using the cyclic approach typical of AR. Each project action had a core team comprising pre-service teachers, serving teachers, teaching assistants (and in every case the RF) who were responsible for its implementation and evaluation. Eclectic methods of data collection and analysis were used (O'Hanlon, 2003) to evaluate the success of each action and improvements were made in the light of these evaluations.

3.4 Managing the limitations of Inclusive Action Research

Jennings and Graham (2004) argue that though critical-theoretical approaches to AR (such as IAR) can support action towards social justice, they cannot support a holistic understanding of the processes involved in its creation or dismantlement. Hence, the pursuit of the deeper questions posed by this research study (understanding the conditions, processes and activities that may develop teacher education for SEN and inclusive practices) would not have been fully served by the evaluative focus of single project actions but depended on a richer, wider view of PD within a particular context. As noted previously, the need for studies that provide rich accounts of PD as socially situated is strongly evidenced by Waitoller and Artiles (2013, p.347) who note the paucity of work on how 'teachers learn in complex contexts in which various institutional and professional boundaries overlap.' This study was designed in ways that would enable it to explore these phenomena through use of additional data collection methods as described in 3.5. This role of the university tutor as RF presented many significant challenges, not least of which managing an insider-outsider status. For example, it was important to sustain positive relationships with participants whilst facilitating the kind of challenge that would enable them to identify and address exclusive practices in their own setting. It was also important for the RF to receive challenges from the participants in due kind. Role conflict is widely reported as an important issue to manage in participatory research that involves boundary crossing (Humphrey, 2007; Maxwell, 2002; Vilenas, 2003). There is not scope in this paper for a comprehensive exploration of the manner in which the challenges were managed. However, a number of safeguards were put in place inclusive of a reflective journal, critical friendship and a validation

group all designed to ensure that researcher bias did not disrupt the democratic nature of the method nor its potential to move the study forward positively.

3.5: IAR and additional methods: Data Collection and analysis

Methods of data analysis were qualitative and involved *content analysis*, *coding*, *enumeration* and *progressive focussing* (LeCompte & Preissle, 1992; Silverman, 2013). Across the data, the *constant comparative method* (Glaser & Strauss, 1973) was used to explain how and why practitioners learn to be inclusive (or otherwise) whilst also allowing researcher bias to be minimised. For example, in the earliest stages of the study, participants' reflections on their own inadequacy for inclusive practice were prevalent in the data. Before using the constant comparative method, the RF had not picked up how powerfully present these were but with repeated iterations of analysis over a growing data set, they emerged as very significant to professional learning. In this way the constant comparative method also addressed researcher bias. The study deliberately constructed a large and complex data set drawn from varied approaches so that the story of this inadequacy could be richly described, understood and explained (see 4.1). This was also the case with other phenomena, examples of which are reported in the findings section of this paper. Throughout the study, singular data events were analysed and the findings mapped into the corpus data. The larger data set was then coded and categorised to enable theory generation over several iterations (LeCompte & Preissle, 1993; Silverman, 2013). Methods of data collection and analysis were designed to enable the internal and transferable dimensions of the study to be served (see 2.9) in ways that provide the complex account of professional learning called upon in the literature (Waitoller & Artiles, 2013) whilst allowing participants to evaluate the specific project actions that

were central to their local concerns. Table 2 provides a summary of the methods used to gather data across the internal and potentially transferable dimensions of the study, offering a succinct and accessible synopsis of the practical operation of the IAR.

Table 2: Methods and sources data collection and their position in the process

Classroom Observation	
<p>Purpose and suitability Classroom observation data was collected by the research facilitator to provide a rich account of what was actually happening in classrooms when teachers, teaching assistants and student teachers were working together to enact inclusive practice. The raw data was collected using a non-participative method with the research facilitator taking detailed notes of moment to moment events and interactions. This was supported by audio recordings and photographic evidence for accuracy. These data allowed participants to make informed judgements about the impact of developments to their practice on learners and provided triangulated data in support of claims about increases in self-efficacy made elsewhere. Further, these data supported the reflective and reflexive work that was facilitated by the RF in ways that were central to the purposes of the project (McNiff, 2003).</p>	
Time and Scope	Methods of Analysis
<p>During the implementation of all project actions and usually at the mid and end points of the student teacher’s practicum.</p> <p>16 classroom observations were carried out over the course of the project and supported evaluation of all project actions.</p>	<p>The rich data arising from the classroom observations were subject to a range of qualitative analysis methods (Savin-Baden & Major, 2012).</p> <p>For example, the participating group had worked together to create a set of ‘markers’ for inclusive practice (e.g. personalised responses) and the data were coded (Chowdhury, 2015) according to these markers to evaluate the extent to which teaching and learning were inclusive and whether there were changes in this over time using enumeration (Ezzy, 2002). The data were used to identify where pupils had made positive steps forward in their learning.</p>
Participants’ reflective writing.	
<p>Purpose and suitability Participants regularly produced pieces of reflective writing in a variety of forms (Phillips & Carr, 2013). For example, as posts on a project website, in reflective diaries and as</p>	

<p>personal reflections during study days. The RF also kept validated records of meetings (e.g. minutes, poster summaries, notes) and a reflective diary. These supported professional development (PD) and reflection. They also became important additions to the corpus data in supporting a description and explanation of professional learning.</p>	
Time and Scope	Analysis
25 pieces of reflective writing formed the data from participants with further data arising from the RF reflective diary.	<p>Thematic coding (Saldana, 2011; Silverman, 2013)</p> <p>Enumeration (Ezzy, 2002)</p> <p>Content analysis (Chowdhury, 2015; Saldana, 2011)</p> <p>Constant comparative method (Glaser & Strauss, 1973)</p>
Conversations	
<p>Purpose and suitability The RF had conversations with all participants during the project and at the end of each major phase. These conversations were transcribed and analysed by the RF. Conversations were chosen over interviews or semi-structured interviews given that these can reflect power imbalances in ways that are not conducive to democratic, participatory research (Kamberelis, 2013). Their open ended nature also gave participants space to reflect on their own and others' learning in ways that would inform the transferable aim of the project.</p>	
Time and Scope	Analysis
26 conversations formed the data for the research and these happened throughout and at the end of key stages of the IAR.	<p>Thematic coding (Saldana, 2011; Silverman, 2013)</p> <p>Enumeration (Ezzy, 2002)</p> <p>Content analysis (Chowdhury, 2015; Saldana, 2011)</p> <p>Constant comparative method (Glaser & Strauss, 1973)</p>
Personalised Learning Plans (PLP)	
<p>Purpose and suitability Student teachers designed <i>personalised learning, teaching and assessment plans</i> for individual learners or groups within their placement classes in collaboration with more experienced staff. The format of the PLPs were designed through collaboration between the RF and school staff. These were written at the beginning of the placement, revisited each week and reviewed at the end of the placement. They allowed participants to make informed judgements about the impact of developments to their practice on learners and provided triangulated data in support of claims about increases in self-efficacy and impact.</p>	
Time and Scope	Analysis
18 PLPs formed the data for the research.	<p>Thematic coding (Saldana, 2011; Silverman, 2013)</p> <p>Enumeration (Ezzy, 2002)</p> <p>Content analysis (Chowdhury, 2015; Saldana, 2011)</p> <p>Constant comparative method (Glaser & Strauss, 1973)</p>

Systematic Reviews of Project Actions.	
Purpose and suitability	
These were written collaboratively by those participants who were involved in implementing project actions and drew on relevant data to evaluate and improve them with each cycle of the IAR (O'Hanlon, 2003;)	
Time and Scope	Analysis
Each project action was evaluated and reported on formally at the end of each project phase. 6 formal reports formed data for the research.	Thematic coding (Saldana, 2011; Silverman, 2013) Enumeration (Ezzy, 2002) Content analysis (Chowdhury, 2015; Saldana, 2011) Constant comparative method (Glaser & Strauss, 1973)
Field work journal.	
Purpose and suitability	
The RF kept a fieldwork journal as a way to record incidental data relevant to understanding the context or the purposes of the project (Saldana, 2011)	
Time and Scope	Analysis
Entries were made throughout the project.	Thematic coding (Saldana, 2011; Silverman, 2013) Enumeration (Ezzy, 2002) Content analysis (Chowdhury, 2015; Saldana, 2011) Constant comparative method (Glaser & Strauss, 1973)

4. Findings

Evidence arising from the substantial evidence base for this study (see table 3) supports the claim that the principles and practices identified in section 2 are likely to underpin effective inclusive teacher education. For this reason, it gives valuable support to these notions which in summary note the importance of collaboration; the value of adopting a research orientation; the importance of carefully structured field experiences; the relevance of critical-theorising and reflexive work; the centrality of deconstructing unhelpful discourses; the centrality of belief-systems and the promise of a theory into practice model. The findings offer strong resistance to oversimplified

conceptualisations of teacher education for inclusion, including those emerging from official sources (Carter, 2014; DfE, 2014).

Participants involved in the study (pre-service teachers, teachers and teaching assistants) reported gains in self-efficacy, skill and understanding. As a consequence of careful attention to triangulation, these reports were corroborated by wider data (for example in that illustrating inclusive outcomes for children through a range of data sources including those collated as a result of PLPs and those identifiable from rich data such as classroom observations). More distinctively, the study offered strong support for the model of inclusive teacher education proposed by McIntyre (2009) since the pedagogic model adopted inspired significant professional development among the participating group. The following reports on key findings arising from the study. It is important to note that though the discussion of the findings is largely illustrated by use of transcribed interview data, the wider data aligns to provide a broad evidence base. Summaries of the evidence base for the findings is presented in 4.5 so as not to disrupt the flow of the narrative (table 3).

4.1 Professional Adequacy for SEN and inclusive practices and the discourses of expertism

The discourses of expertism (as described in 2.7) were confirmed to have a significant impact on the self-efficacy of pre-service and serving teachers. Frequent in the literature is the claim that such discourses strengthen divisive constructions of education (Florian, 2010; Jones, 2006; Silverman, 2007). This study demonstrated that when expertism was in abeyance, pre-service teachers and experienced teachers were more likely to identify within themselves, the knowledge needed for

effective inclusive practice. When it was not, professional inadequacies were felt.

For example, Christine, a postgraduate student teacher, reported on her experience of working with a child whose 'needs' were not yet understood:

[my mentor] said there is nothing particularly wrong, she has a referral, we are waiting, there are processing problems but as yet undiagnosed.....I mean, you know, I said to [my mentor] such as what sort of problems, you know '*expand*' and she said that it was that you would say something to [Leah] and she would come back with something inappropriate – concentration really. I wanted to know as much as I could about it so you can, you can differentiate with your lesson planning because if you have not actually had the experience of working with children with any particular need, it is panic 'what do I do, where do I start'

[Extract from transcribed conversation]

Christine was respectful of more experienced staff but when it came to SENs that she termed 'severe' or 'huge, extreme needs' (with Leah fitting into that category in her mind), she tended to place expertise among professionals who had the 'proper, proper, medical facts' and was very worried about being unprepared or under-qualified for such needs.

Sacha (a teaching assistant working closely with Christine) made the following comment when reflecting on Christine's stance:

It is like a Jack in a Box and something surprising you and comes out it is as though she has put in this special needs in a box and because Leah hasn't got a label, this Jack in a Box is going to jump out! This Jack's going to jump out and it could come at her and she's not quite aware of what it's going to be or know what's going to come out of the box.

[Extract from transcribed conversation]

Sacha's metaphor of the 'Jack in a Box' is a useful one since it captures the way in which Christine located the 'special educational needs' within Leah perhaps believing that when the diagnosis 'jumped out' it would expose her own lack of knowledge and even defy ordinary pedagogic approaches and the ordinary teachers that worked in mainstream schools. Though Christine believed that a label would put her on more certain professional

ground and trigger more reliable forms of practice, she may also have feared its arrival. Whatever the case, there is evidence of Christine's trepidation about SEN. Some of this trepidation may arise from the discourses of expertism and a belief that the expertise for SEN lay outside herself, outside her school and even outside her own profession. Similarly, more experienced teachers adopted an amateur identity as represented by Jane (an experienced teacher) when she was explaining her worries about special educational needs:

Well, the problem here is that for medical conditions we just do not have the training! Like Prader-Willi – we are not doctors but equally, with say Kirsty [a child with very challenging behaviour] we don't even know what she has got so we can't even look that up in a book!

[Extract from transcribed conversation]

Participants were regularly fearful of letting children down as a consequence of their own lack of 'expert' knowledge. This had an impact on their self-efficacy. The data offered strong support for the view that a *research-orientation with reflexive work* can be a powerful means of scaffolding feelings of mastery and accomplishment through abating *expertism* and exposing other diverting discourses. For example, in a personal learning statement at the end of the project, Elaine, a senior teacher in the school and a mentor to students, noted that:

I have been very interested in the distinction between a medical model and a social model and this has really helped me today. I feel clearer about the difference in approach and how, as a busy SENCo, I have had to use labels to secure funding for children but I have realised that this is only a tiny part of what we do and isn't a reflection of my bigger practice and values.

[Extract from personal learning statement]

In relation to a more positive sense of identity and self-efficacy, school staff regularly reported on the impact of the project on their identities as 'professionals' and this

'feel good' impact is strongly evidenced by the data. This suggests that teachers can become more self-efficacious when the discourses of expertism are exposed and challenged by data that casts a more positive light on the impact and skilfulness of their day to day practice.

4.2: The contradictory and dilemmatic character of inclusive practice

Inclusive practice was experienced by participants to have a *dilemmatic and contradictory character*. For example, though the participants operated a dislike of deficit discourses, they found this difficult to sustain (in any pure way) when the concept 'SEN' was at work. The concept 'inclusion' would trigger diversity discourses (which celebrate diversity and uniqueness), but 'SEN' would trigger disparity discourses (where diversity is associated with pathologisation, differential treatment and different expectations). For example, Lorna, a postgraduate student on her first placement, noted the following when reflecting on her experience of developing personalised learning plans:

It was great that I could see a way you could do that next time so the process has helped me enormously to develop in terms of awareness of different needs and, and... at the other end of the scale, it made me more aware of the needs of other children as well, in that there were children in that class that would always finish first and you are aware that they need stretching more. I know, next they would need a different sort of PLP, in order to grow themselves.....I don't think I had thought before I started about how difficult it would be to teach so many diverse needs within one class and I was aware, I became more aware of this from knowing the children and thinking about what they needed when I was doing my lesson plans.... but even then, within the six children who would be termed as 'lower ability' [gestured speech marks], which included those with special needs there were varying people within that group who I almost needed to do different things for.

[Extract from transcribed conversation]

There is some indication that Lorna is using the language of fixed ability ('lower ability', 'at the other end of the scale') but that she feels awkward about it. Arguably, Lorna is working within a 'community of practice', where a range of discourses are likely to be operating. Her cautious and uncertain use of language may be a reflection of her critical stance on these discourses. Kirandeep, 3rd year undergraduate student, also found some difficulty in aligning contradictory discourses:

Kirandeep: I think inclusion is making all children feel equally valued and cared for within the classroom. SEN I think it's difficult to define that because all children have personal needs. I think SEN is more sort of, I don't know how to explain it, outside of the expected needs, greater, more significant needs?

Researcher: Yes, so to you, the term of SEN tends to be a child whose needs are greater – have I got that right?

Kirandeep: Yeah or perhaps more severe than other children so to get them to the level of the other children

Researcher: Yeah so they're at a much earlier developmental stage quite often our anxieties are about trying to get them to catch up, I think, maybe or?

Kirandeep: Yeah

Researcher: But that's my view on that, what's your view on that.....might be different?

Kirandeep: No I think that especially in early years they're still developing at a different stage anyway so I think as long as you make them feel they can achieve and access all areas of learning in the classroom you're providing the opportunities for them to develop

[Extract from transcribed conversation]

Kirandeep's difficulty with forming the words for SEN is interesting – though her final point may have been influenced by a poor interview technique since in this interchange the researcher revealed their own view. Kirandeep sees the Kindergarten phase (known as the Early Years Foundation Stage, EYFS, in England) as a context where all children's needs can be accommodated, reducing the need to consider any child as 'other' or to exert pressure to 'get them to the level

of the other children.’ Simultaneously she has to operate a conception of SEN that is about severity and exception in comparison to an assumed norm probably because this is how SEN is conceptualised in policy and legislation – see 2.5. Though Kirandeep conceptualised inclusion as a response to *all* and *everyone* she seemed to find the concept SEN disruptive to the concept of ‘inclusion’ since one (SEN) was about the ‘other’ and inclusion was about ‘everyone.’ This presents challenges to teacher education given that ‘SEN’ is historically positioned as a disparity discourse. In England, disparity discourse is also embedded in official policy for teacher preparation programmes which assumes that competence depends on knowledge of specific types of disability and distinct approaches applicable to groups or categories of learners with the wider label of SEN (Teaching Agency, 2012; Ofsted, 2009). There was evidence that participants were challenged by *external cultures* that were at odds with their principles and which required of them practices that they believed were not inclusive (such as the need to use ‘labels’ to gain resources and support for a child). They were continually engaged in mediating these external cultures to safeguard their professional integrity and defend positive outcomes for learners. For pre-service teachers, taking a strong and principled stance (for example in deliberately adopting capacity discourses) seemed to be important as a means of navigating this unsettled and contradictory political landscape. This tends to validate the call for a critical-theoretical and beliefs dimension in effective teacher education (Forlin, 2010; McIntyre, 2009; Moran, 2009; Author, 2015 [details removed for peer review]; Rouse, 2010; Slee, 2010).

4.3: Team work and collaboration

There was strong evidence that students came to understand that teamwork and collaboration was a key strategy for inclusion as a consequence of their placement in

this school. For example, Jennifer, a 3rd year undergraduate student, relates that the experience of having to work closely with a teaching team was at first quite challenging:

It scared me to begin with - it terrified me! But the children, it was as if they always have somebody to go to and I think that was nice and everyone knew what they were doing so it wasn't like the classroom was fragmented like it can be sometimes. All the adults knew what they were doing, all the children knew what adults were doing. I think it may have helped to make their learning more, maybe, continuous in a way, I don't know if that makes sense? It made me more organised with what I wanted the children to learn, having to tell another adult and having to kind of, I also talked to them a lot how do you think I could get the best for this child or what's the best way to do that and Mrs R and Mrs B really helped me with that.

[Extract from transcribed conversation]

Collaborative working had at first 'terrified' Jennifer since it added a new layer of complexity and professional expectation. However, for Jennifer, the team environment was not only supportive to children but also to the development of her professionalism. Student teachers reported that team membership had boosted their confidence because their professional judgement was valued within a supportive environment - they were able to *make a contribution* that promoted feelings of mastery. This reflected evidence about the importance of mastery to self-efficacy as has been reported in the wider literature (Lancaster & Bain 2007, Campbell, Gilmore & Cluskelly, 2003). All participants noted that engagement in the IAR had facilitated collaborative reflection which was of very high value in developing their knowledge and self-efficacy. This gives further weight to the suggestion that among the most significant conditions present in this school was its team ethos and the students' experience of it. The theory that effective models of inclusive teacher education (and more generally, teacher education) are built upon collaborative models of

professional learning enacted within the context of systematic enquiry (Darling Hammond, 2006; Hammerness, 2005; Korthagen et al., 2006; Naukkarinen, 2010; Wang & Fitch, 2010) is strongly supported by the evidence presented in this study.

4.4: Working with teaching assistants

There was strong evidence of the significant contribution that involving teaching assistants in the practicum could make to inclusive teacher education. From the outset there was strong commitment to involving them more fully, not least because of their expertise and commitment to supporting student teachers and this was embedded in the design of project action 2. The potential for this was strengthened given that teaching assistants were members of the participating group. Students reported that the support they had received from teaching assistants aided their PD. For example, many students reported that these colleagues had an in depth knowledge of individual children and how to engage them in their learning. Lorna, a postgraduate student, believed that this might compensate for teachers' lack of time in getting to know children in the context of a large and busy class. Lisa and Jennifer, 3rd year undergraduate students, reported that they had gained important insights from observing teaching assistants (for example, in making language accessible) and Lily, 4th year undergraduate student, was disappointed that she did not have opportunities to work with teaching assistants whom she knew had expertise in particular areas. As part of the project, teaching assistants were asked to provide PD workshops for students about which Kathryn, 3rd year undergraduate student, commented:

They put on a session for us in the afternoon which was hugely useful and invaluable and the several workshops - we spoke to Selina about the emotional aspects as well about the nurture room. That was quite enlightening because there were issues there that you wouldn't think would apply to primary school children.

[Extract from transcribed conversation]

Generally, the students believed that the less formal relationship that they had with teaching assistants enabled them to ask questions they might not otherwise have asked. The teaching assistants communicated a desire to work more closely with students and to support them, in part because it would establish them as professionals to be valued. There was a general acknowledgement among the school-based participants that more time should be carved out for teachers and teaching assistants to reflect and plan collaboratively since this could bring deeper positive outcomes to children. It could also support PD.

The data supports the claim that, in this particular context, teaching assistants did make an important contribution to the development of the student teachers placed within this school. They provided practical support, reassurance and encouragement. They also provided important information about individual children that the students could make use of. There is no direct reference to the role of teaching assistants in the literature but these findings suggest that involving them more fully may have had positive consequences. Theories of effective teacher education may have to embrace a broader view of professional collaboration and include reference to those professionals who work alongside teachers and student teachers in the pursuit of inclusive practice. Arguably, this signals a policy issue given evidence that, where professional development (PD) for teaching assistants is not enabled, the contribution they might make to inclusion is limited (Alborz, 2009; Blatchford et al., 2012; Devecchi, et al., 2012; Webster, Blatchford, Bassett, Brown, Martin & Russell ,

2010). Teaching Assistants should not be overlooked in this sense nor marginalised from the research and enquiry community of a partnership.

4.5: Evidence from the corpus data

The following summarises the evidence base for the reported findings.

Table 3: The evidence base for reported findings

Findings 1: Professional adequacy for SEND and inclusive practice	
Themes arising in the data	Participants
<ul style="list-style-type: none"> • Feeling inexpert in dealing with diagnosed or undiagnosed SENDs • Identifying oneself as an amateur when it comes to SENDs • Feeling ‘panic’ and ‘pressure in the face of SENDs 	<p>Experienced teachers (Jane and Anna and Elaine)</p> <p>Student teachers (Lorna, Christine, Kirandeep, Jennifer, Lily, Lisa, Jenny)</p>
<ul style="list-style-type: none"> • Moving to a more positive view of own professional adequacy for SEND 	<p>Experienced teachers (All)</p> <p>Student teachers (All with the exception of Christine)</p>
<p>Prevalence across the corpus data</p> <p>28 single occurrences across 6 research events among 18 participants inclusive of some whole group discussions</p>	

Findings 2: Contradictory discourses: inclusion and SEND	
Themes arising in the data	Participants
DISPARITY DISCOURSES	
<ul style="list-style-type: none"> • SEND operating alongside deficit discourses • SEND operating alongside medical discourses • SEND operating alongside normative discourses 	All experienced teachers and students.
DIVERSITY DISCOURSES	
<ul style="list-style-type: none"> • Inclusion operating alongside capacity discourses • Inclusion operating alongside participative discourses • Inclusion operating alongside the celebration of uniqueness and the richness of diversity. 	All participants
<p>Prevalence across the corpus data</p>	

Disparity discourses: 28 single occurrences across 4 research events among 18 participants (all activated when the concept 'SEND' was being operated).
Diversity discourses: 47 single occurrences across 8 research events among 18 participants inclusive of some whole group discussion (all activated when the concept 'inclusion' was being operated).

Findings 3: Learning about the importance of teamwork and collaboration in securing inclusive outcomes for learners and professional development

Themes arising in the data	Participants
<p>Students developed:</p> <ul style="list-style-type: none"> • Confidence in team-working skills • Understanding of the value of teamwork as a means of securing inclusion and continuity for children • Understanding that the support of colleagues is essential for meeting children's needs • A sense of professional accomplishment and contribution as a result of being part of a support network where their suggestions were valued. This was a confidence boost. • <i>The IAR brought opportunities for collaborative enquiry that supported mutual development for all participants.</i> 	<p>All students reported on the positive impact of team working and team membership.</p> <p>All participants reported on the value of collaboration in supporting their learning and development.</p>

Prevalence across the corpus data
 108 single occurrences across 8 research events among all participants.

Findings 4: The value of involving teaching assistants in supporting the practicum

Themes arising in the data	Participants
<ul style="list-style-type: none"> • The workshop, delivered to students by teaching assistants, brought valuable new insights about how to meet individual needs. • Students reporting that teaching assistants' knowledge of individual children was a valuable resource to draw on. • Students reporting that the less formal relationship that they could 	<p>All students reported on the positive impact of working with TAs on their confidence and capability to teach inclusively.</p>

<p>establish with teaching assistants meant that they brought opportunities for supportive interaction that they might not have otherwise have.</p> <ul style="list-style-type: none"> • Students reporting that they had a positive working relationship with teaching assistants that involved advice and feedback from which they benefited • Students noting that they had learned to respect the expertise and contribution that teaching assistants could make to inclusive practice 	
<p>Prevalence across the corpus data 85 single occurrences across 7 research events among 11 participants.</p>	

5. Recommendations: Practices and principles underpinning effective inclusive teacher education

Though there are ambiguities, complexities and challenges to workability needing further research, evidence from this study combined with that in the wider literature provide important insights about the principles and practices that underpin effective teacher education. The following is a summary of key recommendations for teacher educators.

Firstly, it is clear that teacher education needs to embed a *career long research orientation* into its design and enactment. Synchronous critical enquiry among collaborating school staff, university tutors and pre-service teachers can create the forum for effective PD and improved inclusive practices. Engagement *in* and *with* research offers a sound pedagogic framework for effective inclusive teacher education, and the model of research oriented critical enquiry (ROCE) offered by Burns and Mutton (2013) is very promising, particularly when it is operated

collaboratively by pre-service and serving teachers within the context of their classrooms as is borne out by a range of other studies (Argyropoulos & Nikolarazi, 2009; Gudjonsdottir et al, 2007). Teacher education should usefully operate a reflexive model of professional learning given that the transformations to practice required for inclusion cannot arise from compliance with what is routine or assumed. Further, a critical theoretical dimension in teacher education situates practice within the wider social, historical and political context and can reveal new ways forward whilst enabling more positive professional identities for SEN and inclusion. This was strongly demonstrated by the evidence in this study.

Ultimately, there is no grand theory that can answer the question 'How can we practice inclusively?' Rather there are myriad choices and options that can only be selected through intelligent engagement with the *here* and *now*. Inclusive practice is inherently dilemmatic and mutable. It demands compromise and dexterity in highly localised contexts where bespoke approaches are required in response to very specific challenges. This study has demonstrated that partnership between school based and university staff can create effective spaces for PD among all collaborators including student teachers. More importantly, it unfolded within the complex social space of authentic practice exposing the relationship between these spaces and wider social structures (such as policy). However, questions remain about how workable such arrangements are in the context of busy working lives where there are so many jobs to be done.

The evidence from this study combined with wider evidence (Argyropoulos & Nikolarazi, 2009; Macbeath, 2012) suggests that effective models of inclusive teacher education will be likely to adopt a *collaborative approach to professional*

learning and development. Despite the neo-liberal discourses of individualised competence and accountability, inclusion cannot be achieved by a 'lone perfectionist.' Inclusive outcomes depend on shared responsibility, collaborative enquiry and solution finding. On this point, teaching assistants (and paraprofessionals) can make an important contribution to the school based learning of pre-service teachers in terms of their wellbeing, efficacy, collaborative skills and PD. Teaching assistants should not be overlooked in this sense nor marginalised from the research and enquiry community of a partnership. Providers of teacher education will need to expand their understanding of who is relevant to teacher development and professional preparation across a partnership. They will also need to review the impact of an individualised approach to professional development and assessment.

In learning to teach inclusively, it is clear from the evidence that *field experiences* are the most significant sites for development but their impact depends on careful attention to their structure, location and evaluation (Conderman, Morin & Stephens, 2005; Stoddard, 2006; Vickerman, 2007). Pedagogic design for the practicum should expose student teachers to the significant challenges involved in responding to diverse learners at the same time as scaffolding their journey towards mastery and accomplishment. Such processes require careful and complex pedagogic design and partnership.

Further, in the context of partnership using a practice into theory approach and resisting a theory into practice model offers scope for teacher educators and collaborating communities to centre their development on improvements to instructional techniques and outcomes for learners whilst sustaining opportunities for drawing on wider theory as a means of countering insider bias. This evidence

strongly justifies a *values and beliefs* dimension in teacher education as an important and significant means of preparing students to teach inclusively. Field experiences alone are not sufficient to enable this. Pedagogic frameworks for inclusive teacher education must be underpinned with support for intellectual engagement and critical thought.

Seeking inclusive outcomes for learners is an ethical pursuit which can be sustained by particular belief systems and a willingness to understand the impact of one's own biography and social context. On this theme, dominant discourses (such as the medical model, expertism, deficit discourses and disparity discourses) and the belief systems they both represent and promote can be disruptive to PD and need to be exposed and deconstructed as part of an effective programme.

6. Conclusion

Inclusive teacher education must adopt a *complex, multi-modal, collective, critical theoretical, socially situated, research-oriented and partnership-oriented pedagogic model* if it is to advance. If reforms to teacher education result in a culture of 'on the job' training that demotes research informed critical enquiry and reflexive work (as current policy seems to promote in England) in favour of compliance and centralised power, practitioners may be neglected as they struggle to understand and resolve the dilemmas that arise in securing inclusive education for all. The result of this may be professional disengagement from the battle for a fairer system and a sustaining failure to serve the rights of those learners most vulnerable to exclusion. Teacher educators are asked to consider the recommendations made in this paper as a basis for evaluating their current pedagogic models and to pursue workable ways to adopt

these in pedagogic design. This will call on attention to the wider context through which inclusive practice is helped or hindered and demands for teachers and teacher educators, a position of agency in wider policy reform and acknowledgement of the way in which external cultures may influence their work.

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