



Towards a New Reality for Teacher Education for SEND

**How can we best prepare teachers
for working with children with special
educational needs and disabilities so that
they can achieve effective inclusion?**

DfE SEND in ITT Project Report and Roadmap

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Summary

The context for this project is founded in concern amongst UK policy makers, as well as by those involved in service delivery, that in initial teacher training in the UK there is not enough emphasis on special educational needs and disabilities (SEND). The project is funded as part of the DfE National Prospectus Grants Programme 2013-2015, which was designed specifically to create actions supporting workforce development to support the “SEND Reforms” associated with the Children and Families Act 2014. The key aim of the project was to investigate how we can best prepare the next generation of teachers for working effectively with students with SEND. Key centres at the UCL Institute of Education, including SENJIT, the Centre for Research in Autism and Education, and the Primary and Secondary ITE Programmes, in close collaboration with Swiss Cottage, worked together to formulate, pilot and evaluate a two year specialist route for preparing teachers for effective inclusion. This route did not represent a move towards a bifurcated model for SEND to be found in some other territories, where teacher education involves fully separate tracks for the training of teachers working with “special” and “mainstream”. From the outset we recognised the dangers of locating something which should be the responsibility of all teachers in the hands of “experts”, which concomitant risks of disengagement from the function of achieving effective inclusion by the “non-experts”. Thus, from the outset, the route was based on the principle that expertise is something to be shared to increase capacity across local and wider contexts, not something to be held by isolated individuals. At the same time, we recognised the significant pressures on ITT programmes in England, and the potential resource barriers that exist to providing SEND enrichment programmes to all ITT students. Thus the route proposed and piloted within the project was that of an “enhancement and dissemination” model, whereby a group of teachers followed a modified two year programme, with an emphasis, following to some extent to recommendations of the *Lamb Report* in 2009, on becoming “Champions” for SEND and disseminating their knowledge to other teachers.

Structure and Content of the Pilot

A cohort of 20 primary and 20 secondary initial teacher education students are followed a specialist two year route. A curriculum for this route was devised following

a detailed review of the literature on Inclusion, SEN and teacher education, as well as consultation with leading experts from the IOE and Swiss Cottage, as well as other stakeholders including representatives from Teaching Schools.

This resulted, for this group of students, in their PGCE/School Direct year, in a set of additional input on working with children with special educational needs and disabilities, in the form of additional face to face sessions on inclusive pedagogy, child development, language and literacy, autism, alternative communication approaches in the classroom and creative approaches to achieving inclusion. The students also spent an intensive week at Swiss Cottage School, where they observed good practice in the classroom as receiving additional specialist input from expert staff at Swiss Cottage. The programme was supported by a range of specialist resources provided on the institution intranet.

A Two Year Route

Given the pressures in terms of curriculum content on 10 month PGCE/School Direct programmes, there seemed considerable utility in continuing input on SEND in to the NQT Year. As such the route was designed as a two year programme, whereby in the NQT (newly qualified teacher) year, the students completed an accredited 30 credit masters level module on inclusion and SEND. This included input on making effective use of research evidence about diagnostic categories in SEND, as well as on beginning to develop a leadership role in disseminating best practice in achieving effective inclusion of children with SEND. In this regard, it is envisaged that graduates of the programme will go on to have an impact on the practice of other teachers in their own school or across clusters of schools. A two year route also gave scope for exploring the links between initial teacher training and continuing professional development for in service teachers.

Evaluation

A detailed evaluation of the experience of students and of their school mentors was undertaken. A series of pre and post questionnaires were completed both by the students on the pilot and by a matched “control” group of students undertaking the general PGCE/School Direct programme without the additional enhancement on

SEND. Semi-structured interviews were also completed by a sample of students and their school mentors.

As well, two dissemination seminars were held as part of the project in June 2014 and March 2015. These gave an opportunity both to share progress with stakeholders from schools, other ITT providers and government, but also to draw on their views on how effective approaches in preparing teachers for working with children with SEND could best be developed.

Conclusions

The evaluation of the route clearly indicated that enrichment input on SEND in ITT courses can have a significant effect on increasing the understanding of beginning teachers about how to achieve effective inclusion with children with SEND. In particular, the experience of being in a special school setting, even for a short period, had a significant influence on the practice of student teachers in mainstream settings, something that continued to have an effect in to the NQT year.

The Carter Review of Initial Teacher Education (DfE, 2015) highlighted better training for SEND as a priority. The results of this project support that recommendation, in fact going further in arguing, based on the evidence, that current arrangements for ITT are not structurally appropriate to allow for the increase in understanding by teachers about both general principles of inclusive pedagogy and key knowledge about specific diagnostic categories, that are needed to give the best chance to children with SEND in the classroom.

We believe that the review of the experience with this pilot, suggests two feasible options in England for addressing the adequacy of training for SEND in the context of both ITT and continuing professional development. These recommendations also have implications for other countries within the UK. These are:

1. **An enrichment and dissemination model** that offers a modified *route* within the standard PGCE/SD programme and is offered to around 5% of ITT trainees nationally. Crucially, such a route should have an associated

emphasis on leadership and dissemination, encouraging participants to share their understanding with colleagues both during their ITT and NQT years and beyond.

2. **A longer or extended PGCE/SD programme for all students** including additional enhancement on SEND for all students. Many of the issues relating to one year PGCE and the proper embedding of the enrichment model in all ITT could be resolved if the length of ITT programmes was increased. Such an increase would have potential benefits in terms of many other aspects of the crowded ITT curriculum, and would reflect the developments with lengthening ITT in other territories. In this way, all trainees could gain benefits in terms of impact on attitude, knowledge and understanding about effective inclusion of children with SEND.

These recommendations, as well as others on curriculum structure and design, as well as on the relationship between ITT and continuing professional development in relation to SEND, are further elucidated in the main document.

SEND and ITT: History and Context

Recent years have seen a focus on the training of teachers in the field of SEND within the UK. It should be noted that prior to 2008 there had been no route into SEND via ITT for the previous 15 years as all teacher training during this time had to focus on the national curriculum subjects. In 2007 a more coherent approach was introduced which followed a debate regarding whether or not there was any such thing as a 'special' pedagogy (Lewis 7 Norwich, 2005).

This critique has also seen a concept of inclusive teaching emerge in which traditional notions of what may have been considered as a prerequisite for teachers of SEND regarding knowledge of differing disabilities has been replaced by a pedagogy which reduces barriers and encourages a diversity of learning strategies tailored to individual needs.

Florian and Black-Hawkins (2010, p14) describe their conceptualisation of inclusive pedagogy:

Our conceptualisation of inclusive pedagogy focuses on how to extend what is ordinarily available in the community of the classroom as a way of reducing the need to mark some learners as different. This is underpinned by a shift in pedagogical thinking from an approach that works for most learners existing alongside something 'additional' or 'different' for those (some) who experience difficulties, towards one that involves providing rich learning opportunities that are sufficiently made available for everyone, so that all learners are able to participate in classroom life.

In 2007 the Training and Development Agency for Schools (TDA) introduced new standards for teachers in England, three of which related to SEND and remain in place. They were:

Q18 – understand how children and young people develop and that the progress and well-being of learners are affected by a range of developmental, social, religious, ethnic, cultural and linguistic influences

Q19 – know how to make effective personalised provision for those they teach including those for whom English is an additional language or who have special educational needs or disabilities, and how to take practical account of diversity and promote equality and inclusion in their teaching

Q20 – know and understand the role of colleagues with specific responsibility including those with responsibility for learners with SEN and disabilities and other individual learning needs (TDA 2007).

In the years following the introduction of these standards, a number of government and agency reviews pointed to limitations in ITT in relation to SEND.

An Ofsted review (Ofsted 2008) looked at the factors which contributed to good training for intending teachers in preparing them to meet the needs of pupils with SEND. The survey showed that there was a high reliance on school placements for providing this training and that fewer than half of the schools visited provided good induction on this aspect. There were also variations in the programmes provided by ITT providers with those providing PGCE courses particularly having difficulty in finding available time: *The most effective provision at all stages not only developed trainees' understanding of generic issues relating to learning difficulties and/or disabilities but extended this further through additional work specifically focusing on this area* (p.6).

As a result of their findings, Ofsted recommended that the TDA should clarify what should be included in a training programme and how the contents should link to the teaching standards. Providers should ensure that the programmes are monitored by someone with appropriate expertise and that programmes should ensure that teaching of pupils with SEND both permeates a course and includes specific sessions on effective practice.

A series of reviews/inquiries commissioned by the DCSF also highlighted the need for more training for teachers in various aspects of SEND. *The Bercow Report* (2008) into provision for pupils with speech, language and communication needs (SLCN), showed a variable picture of provision and indicated a need for increased

training for all in the workforce in relation to SLCN and concluded: *We further recommend that the standards for Qualified Teacher Status ensure that students develop a better understanding of children and young people's SLCN and of how to address those needs.* [Recommendation 22].

The Lamb Inquiry (2009) into parental confidence in SEND, having identified concerns about the teaching of pupils with SEND and the significant use of TAs to undertake this, stated: *We therefore need to build a better understanding of SEN and disability into every aspect of training* (2:42). At the same time there was optimism about the development of materials to support ITT: *The Inquiry recognises that there are significant developments under way in teacher training and that the full impact of these developments is not yet felt in schools. The SEN and disability resources for initial teacher training and the proposed resources for induction, build on Quality First Teaching and will significantly enhance the skills of new teachers at the start of their career. By the time there is a significant number of newly qualified teachers with this new training as part of their preparation, there will be a much greater awareness of SEN and disability and this will enhance the ability of schools to identify, assess and provide for children with SEN* (2:45).

The Salt Review (2009) into teachers for those with SLD/PMLD showed that NQTs who responded as part of the review did not feel adequately prepared to teach pupils with these needs, after their ITT. The review also pointed out that pressure of time on ITT courses, especially PGCE, meant that there was limited focus on these areas (p4). The review recommended that trainees should be encouraged to take up a place in specialist provision as part of their training (Recs 8 -11). There was also a need for more focus on child development with a widely reported comment from head teachers that: *Teachers coming through primary training routes are receiving an insufficiently strong grounding in early childhood development, and that this was seen as a crucial issue* (3:5).

NQT Surveys (TDA 2008-12) showed that, while there was an improvement in trainees' experiences of SEN training, there was still a significant number who felt that they were not well prepared to teach pupils with SEN.

Originally carried out by the TDA, in 2012, by the Teaching Agency (TA) and in 2013 and 2014 by the National College for Teaching and School Leadership, these surveys asked NQTs a series of questions about their experiences as trainees. In particular, trainees were asked to rate their preparation for work with pupils with SEN. Responses were divided between primary and secondary trainees.

Trainee perception of preparation to work with pupils with SEN

	Primary Good or very good	Secondary Good or very good
2008	47%	55%
2009	49%	56%
2010	49%	57%
2011	52%	59%
2012	59%	65%
2013	68%	73%
2014	64%	76%

Although there is a positive trend, the NQT Surveys do indicate that a significant number of trainees do not feel well enough prepared for dealing with children with SEN in the classroom. This concern is also reflected in research studies on student perceptions of training effectiveness in this area.

Research on training

Over the years there has been much debate about the best ways in which to prepare trainees to teach pupils with SEND. Most academic commentators acknowledge that there is often insufficient preparation either because of lack of time or over reliance on schools. For example, Mittler (2008) indicated that the special needs element in ITT is very difficult to deliver and depends largely on the time available to the SENCo of the school in which the trainee is placed. Hodkinson (2009) stated that training for SEND teachers has changed little since the 1970s and argued that there needs to be a coherent plan from government which enables HEI ITT to train students who are competent and confident in their abilities to work with children with SEND as programmes have developed in an ad hoc manner. It is seen as important that all trainees receive this training as part of their course and that it is not solely an elective element.

Florian and Rouse (2009) reported on a project in Scotland describing how the structure and content of an initial teacher education programme for primary and secondary teachers had been revised to ensure that social and educational inclusion is addressed within the core programme. This was underpinned by the understanding that inclusion and standards are not mutually exclusive but mutually beneficial.

Nash and Norwich (2010) reported on a national survey of programme directors and subject tutors of Post Graduate Certificate in Education programmes (PGCE) for primary and secondary teachers about initial training provision in this aspect of teaching. The main findings were about varied practices across placement schools, the commitment to the training partnership, coordination problems across the partnership and organising teaching experience of pupils with SEND.

Moran (2009) considered attitudes to inclusion and how these are developed through ITT in Northern Ireland. Many student teachers were quite unprepared for the many challenges they would meet and often: *Struggled to reconcile principles of*

individuality and diversity with inclusion and equal opportunities, which is exacerbated by the universal drive to improve standards (p57). It is clearly not possible to prepare fully trainees during ITT for the variety of contexts they will meet: *What is crucial in respect of teachers' early career learning is that a clear integrative model of teacher education, especially in relation to the development of professional values and inclusive practice, and includes a shared understanding of Inclusion (p58).* Florian and Linklater (2010) reported on the Inclusive Practice Project in Scotland, (University of Aberdeen) which aimed to change thinking about teaching and learning away moving away from the concept of what works for most learners and what is additional or differ for those with difficulties. They stated that *"teachers may feel uncertain about how to respond to particular difficulties...but this is not the same as lacking teaching abilities, knowledge of skills"* (p371).

Florian, Young and Rouse (2010) reported further on the above project, which ensured that additional support needs are part of the core curriculum for PGDE and not an option selected by few trainees. They, too, reflected on trainees' beliefs and stating *"there is a relationship between what teachers think about the nature of the ability to learn and the teachers' willingness to accept responsibility for teaching all students"* (p712). They need to be given pedagogical strategies which show them how it is possible for classroom teachers to support the learning of all pupils. Three key elements underpin developing inclusive practice – taking differences into account as an ordinary aspect of human development; convincing teachers they are qualified to teach all pupils; developing ways of working collaboratively with others.

Forlin and Chambers (2011) reported on a project in Australia which looked at the outcomes of an elective course on inclusion in terms of trainees' attitudes and concerns about inclusion. While previous training, experience in teaching pupils with disabilities or higher qualifications made no difference to attitudes and concerns, these, there was a strong link between perceived confidence and knowledge and those attitudes and concerns. The greater their knowledge their knowledge, the more positive they were. *"An unexpected outcome was a lack of gain in positive attitudes following engagement with people with disabilities during the applied experience"* (p28). They also suggest that contact with people with disabilities may make trainees

more realistic about the type of support needed to support these pupils in mainstream classes. This led to support for addressing concerns as much as possible in the ITT programme.

Jordan, Schwartz and McGhie-Richmond (2009) carried out a study in Toronto looking at pedagogy and SEND. Their research suggested that in elementary classrooms, effective teaching skills are effective for all students, both with and without special education needs. Effective inclusionary practices, and therefore overall effective teaching, depend in part on the beliefs of teachers about the nature of disability, and about their roles and responsibilities in working with students with special education needs. Elementary classroom teachers who believe students with special needs are their responsibility tend to be more effective overall with all of their students. They comment that little is known about how skills for effective inclusion are developed, but suggest that trainees need opportunities to reflect, not only on practice, but also on the beliefs that underpin their practice.

Some have suggested that the reduction of specific elements in some ITT courses may have a detrimental impact on trainees' ability to teach those with SEND. Thus Wedell (2008) stated that ITT does not generally prepare trainees for meeting the needs of those with SEN and concluded that emphasis on subject knowledge rather than on child development and the psychology of learning left trainees ill prepared. (p131)

Issues have arisen reflecting previous debates on teaching pupils with SEND – particularly those which discussed whether or not there was a specific pedagogy in relation to SEND (Lewis and Norwich, 2005). This linked into discussions about attitudes and the importance of these for trainees in accepting their responsibilities towards pupils with SEND and realising that they can teach these pupils. Thus Florian (2008) pointed to evidence suggesting that: *Teaching strategies used in mainstream education can be adapted to assist pupils with SEN. Effective strategies are as likely to be informed by what is being taught as much as by who is being taught* (p205). Teachers must move from the idea that they are not qualified to teach those with SEND. They must also learn new strategies for working with others, for

example, through collaborative teaching, in order to develop their skills in this area. Consideration has also been given as to whether it is better to treat SEND training as a separate element or whether it should be woven into the whole training programme. Sharma, Forlin and Loreman (2008) compared the effects of ITT on attitudes to inclusive education between differing programme approaches Australia, Canada, Hong Kong and Singapore. They considered two main approaches to this aspect of teacher training – completing a module in special education or introducing the knowledge throughout the ITT programme. They concluded that both models can be effective and that: *Pre-service teachers who come into direct and systematic contact with persons with disabilities designed to enhance an understanding of various disabling conditions, are aware of local policies and legislation supporting inclusion and complete assignments dealing directly with their concerns are more likely to feel positive about including students with disabilities in their classrooms compared with their counterparts who lack such an education (p783).*

Training materials/projects

Lindsay et al (2010) carried out an interim evaluation of initiatives designed to improve teachers' skills in relation to SEND. Among the elements considered were the TDA ITT materials developed by the Institute of Education, University of London (IoE). These had been well received by ITT undergraduate providers who were incorporating it into their programmes. The extended placements in specialist settings offered important benefits and were highly rated in terms of preparing trainees to teach pupils with SEND. The final evaluation (2011) supported these findings, showing that trainees rated the teaching on SEND as more effective and felt more prepared to teach pupils with SEND if their course had incorporated the materials. Similarly, those who had undertaken placement in a specialist setting felt better prepared to teach pupils with SEND than those who had not had a placement. On the basis of their findings they recommend that the materials should be maintained and updated as needed and that there should be more funding to support placements in specialist settings.

Norwich and Nash (2011) reported on the above project and conducted a trial of a practical teaching task for preparing primary and secondary teacher trainees to teach pupils with special educational needs. The findings in the first part of the project, which were based on interviews with programme directors in HEI, bore out those of Ofsted (2008).

These programme directors identified their priorities for improving their provision as: (1) more shared training across partnership schools; (2) more explicit reference and planning as regards SEN and (3) the involvement of schools' SENCOs.

Ofsted (2008) asked Higher Education providers about the effective elements of their provision. Most providers identified a dual approach with distinctive SEND elements alongside a broader consideration of the successful aspects of teaching and learning. *"Interest and commitment to SEN is more likely if what is special about teaching pupils with SEN can be seen to connect to general teaching principles and practices"* (p10). Subject tutors also identified elements such as experiences in special schools, working with teaching assistants, learning through examples, case studies, access to up-to-date resources and opportunities for reflective practice.

Nash and Norwich also suggest that there is not necessarily a distinct SEND pedagogy, but rather that teachers, particularly in mainstream, need an intensification of general teaching approaches, including/ together with personalisation. They developed a practical task which included:

- assessment and teaching of an individual pupil over a 6–8-hour period of time
- working with the school's SENCo or inclusion co-ordinator
- use of an individual educational plan (IEP) and a contribution to its development
- use of a web site with briefing about the activity (for trainees, SENCOs and subject tutors), linked resources, and an assessment and teaching guide.

While the trial identified a number of concerns which were addressed, most of the PGCE programme leaders indicated a wish to use the task in the future.

Alternative/specialist placements

As Lindsay et al. (2010)'s work indicates, one way of enhancing trainees' understanding of SEND has been by providing them with opportunities of placements in special schools or special resource provision. While some questions about this have arisen, particularly in the context of inclusion, there has been support from trainees, schools and ITT providers suggesting that it is, overall, very effective.

Hodkinson (2009) commented on the special school placement project which was part of work developed for the TDA by the Institute of Education. Although the LDC (2008) had reported on this positively, there was little information available as to numbers and effectiveness of such placements

Golder, Jones and Quinn (2009) reported on the use of the TDA programme with trainees placed for fifteen days in specialist provision. Trainees undertook a variety of activities, including observations, preparing resources and short periods of teaching. The feedback from both trainees and the schools in which they were placed was that the placement was beneficial to their professional development, helping to develop their awareness of strategies for inclusion and thus increasing their confidence. In particular, they identified communication strategies, classroom management and use of a variety of resources. Richards (2010) reported similar findings with trainees feeling more confident and skilled to meet the needs of SEND pupils.

Sangster and Green (2012) reported on an alternative placement run with Year 2 students on a three-year undergraduate initial teacher education degree programme (primary, 3–11). This enabled trainees to have a practical teaching experience in any setting outside the age phase they were training to teach and included specialist SEND placements. Data were collected through students' written reflections and their identification of the standards required for Qualified Teacher Status that they experienced. 38 trainees chose special school placements and 9 hospital schools placements. The research found that trainees felt that they had increased their knowledge and understanding of the setting and its pupils, working as part of a team, effective communication with parents and professionals, behaviour management,

personalised learning. The research also highlighted the importance of trainees being able to reflect on their experiences and practice.

Conclusions

Literature to date has critiqued the notion of 'specialism' and in particular queried the practice of defending segregation through the appropriation of inclusive language. (European Agency for the Development of Special Needs Education 2012). The whole notion of separate skills sets is also questioned. What is suggested is that teachers work to become better prepared to develop their own skills and reflective practice throughout their careers.

Much of the literature focuses on changing the attitudes of both teachers and teacher-educators and encompassing inclusive values with in both legislation and professional development frameworks, (European Agency 2012 page 22-23). Some programmes, such as those in Utah from 2009 onwards (cited European Agency 2012, p.20) clearly state they are modelling their programmes on the principles of *Universal Design for Learning* where as others seem to incorporate these three principles within their general approach to inclusion. The principles are to provide multiple means of:

- representation
- action and expression
- engagement (National Center on Universal Design For Learning USA 2013).

Recent theoretical development (e.g. Davis and Florian, 2004; Lewis and Norwich, 2005) suggests that much of what has traditionally been seen as pedagogy for pupils with SEND and/or disabilities consists of the approaches used in ordinary teaching, extended or emphasised for particular individuals or groups of pupils. This applies even when teaching approaches may look very different, for example, when teachers are working with pupils with complex needs. Teachers need to be convinced that they are capable of teaching pupils with special educational needs.

However, there have been some concerns noted as well in the literature that

notwithstanding the need to keep principles of inclusive pedagogy in mind, there is also a need for teachers to have knowledge about key aspects of particular diagnostic conditions and an understanding of key strategies in relation to these. For example, Osler and Osler (2002) presented data to indicate that particularly for some impairments, the level of understanding about those conditions and what implications they can have for teaching strategies makes a significant difference to the effectiveness of the teacher in meeting the needs of those children. Wedell (2008), drawing on government statistics on academic outcomes for children with SEND, argues that student teachers in England and Wales are generally unprepared for meeting the needs of those with SEND and concludes that emphasis in teacher education on subject knowledge rather than on child development and the psychology of learning meant that teachers were not well equipped for supporting children with SEND. Further, the UK House of Commons Education and Skills Select Committee (2006) which undertook an in-depth review of SEN provision in schools, and received representations from a range of stakeholders, including teachers, parents, other professionals and special interest groups, noted the need for teachers to receive significantly greater input on the psychology of child development both generally and in relation to particular diagnostic categories.

When considering the extent to which specific approaches or curricula to increasing the effectiveness of training for teachers around SEND have in fact been implemented in any consistent way in England, the only concrete example is the SEND ITT materials published by the TDA in 2008. These “Pillars of Inclusion” were determined by iterative processes with practitioners, academics and policy makers eight themes which could be helpful for new teachers to consider in their teaching:

- inclusive learning environment – sound and light issues, seating, resources, displays, low arousal areas, health and safety
- multi-sensory approaches, including ICT – when teaching, for pupil recording and to promote security and organisation
- working with additional adults – consulting pupils about support, planning support, evaluating support

- managing peer relationships – grouping pupils, managing group work and discussion, developing responsibility
- adult /pupil communication and language – teachers’ and pupils’ communication, pupil-teacher interaction
- formative assessment/ assessment for learning – understanding the aims of the lesson, focusing on how pupils learn, giving feedback, understanding assessment criteria, reviewing progress and helping pupils to improve, gathering assessment evidence
- motivation – understanding the structure of the lesson, relevant and motivating tasks, reward systems
- memory/ consolidation – recapping, reducing reliance on memory, consolidating learning, independent study/homework

As the initial evaluation of this framework was positive from both Teacher educators and trainees (DFE 2010 Lindsay et al) these could be considered for inclusion in any future ITT curriculum.

The SEND in ITT Project – Context, Structure and Overview

The core of the project is the piloting of a specialist two year route for ITT students involving a cohort of 20 primary and 23 secondary PGCE/School Direct students at the Institute of Education in the 13/14 and 14/15 academic years. Students were selected for the route competitively. Applicants, drawn from the pool of students already registered for the PGCE/School Direct course, were asked to write a 300 word statement indicating why they felt they were suitable for the specialist route. Approximately 120 applications were received for 43 available places. The aims of the project were, through the piloting and evaluation of this two year specialist route, to consider, in terms of national policy and practice on ITT:

- how much do teachers need to know about theory about SEND – e.g. Theory of Mind in Autism?
- what is the place of specific training routes for SEND in the overall policy framework?
- what future directions should be a) with ITT and b) with CPD in terms of preparing teachers for working with children with SEND?
- what is the place of special school experience in preparing teachers to work with children with SEND?

In tandem, the project also created a set of resources and materials on the curriculum for the pilot specialist route which are being disseminated to other ITT providers – see: <http://www.ioe.ac.uk/research/104436.html>.

A curriculum for this route was devised following a detailed review of the literature on inclusion, SEND and teacher education, as well as consultation with leading experts from the IoE and Swiss Cottage School Development and Research Centre, including the IoE's SENJIT and the Centre for Research in Autism Education. This resulted, for this group of students, in their current 13/14 PGCE/School Direct year, in a set of additional input on working with children with special educational needs and disabilities, in the form of additional face to face sessions on inclusive pedagogy, child development, language and literacy, autism, alternative communication approaches in the classroom and creative approaches to achieving inclusion. The

students also spent an intensive week at Swiss Cottage School, where they observed good practice in the classroom as receiving additional specialist input from expert staff at Swiss Cottage. The programme is supported by a range of specialist resources provided on the institution intranet.

This group of students then went on, in their 14/15 NQT year, working mostly in mainstream schools, to continue to receive additional input, in the form of an accredited 30 credit masters level module, on inclusion and SEND. They also received input on making effective use of research evidence about diagnostic categories in SEND, as well as on beginning to develop a leadership role in disseminating best practice in achieving effective inclusion of children with SEND. In this regard, it is envisaged that graduates of the programme will go on to have an impact on the practice of other teachers in their own school or across clusters of schools, building on the idea of the “SEND Champion” outlined in the Lamb Inquiry report.

The project also had a significant evaluation and dissemination component. A pre and post questionnaire was completed by the project students as well as by a ‘control’ group of students not receiving this additional input. The questionnaire had Likert Style questions, and a limited number of open ended textual responses, focusing on attitudes, beliefs, and knowledge about special needs. The initial questionnaire was completed at the start of the 13/14 academic year, and the post-test questionnaire was completed at the end of this year in June 2014. In addition, a sample of 8 project students, as well as the key teachers working with them in schools, participated in a semi-structured interview, further exploring the areas on the questionnaire. This took place in May/June 2014 with further evaluation in 14/15. Two dissemination seminars were also held, attended by a range of stakeholders, including school SENCOs and leaders, other ITT providers and third sector representatives. Views collected during these seminars are also used in the overall evaluation and in making recommendations for future strategy.

Note: The two year specialist route was internally badged as the “SEND Additional

Experience” and this term is used interchangeably with “Specialist Route” within the document.

Recommended principles we formulated and followed during the project

During project initiation, we formulated, based on discussion and the review of the literature, a number of core principles as follows, again based on detailed consultation with IoE, Swiss Cottage and wider IoE partnership school leaders, as follows:

Principles related to effective practice in working with children with SEND

- 1) An inclusive pedagogy approach, aligned with the approach of Florian and Black-Hawkins (2010) that effective inclusion requires a shift in teaching and learning from an approach that works for most learners existing alongside something ‘additional’ or ‘different’ for those (some) who experience difficulties, towards one that involves the development of a rich learning community characterised by learning opportunities that are sufficiently made available for everyone, so that all learners are able to participate in classroom life. Such an inclusive approach should be based on looking at the learning needs of all students, identifying strengths and barriers to learning, and personalising learning to meet needs and ensure that students achieve their potential
- 2) A recognition that having specialist knowledge about child development, and best practice approaches to working with children with particular categories of need or impairment, can lead to better inclusive practice in the classroom
- 3) A recognition that the specialist knowledge about best practice approaches to working with children with particular categories of need or impairment is often located in special schools (and resource units in mainstream schools), and that it may be that structured experiences in special schools (and resource units in mainstream schools) could increase the confidence and ability of trainees to work with children with identified special educational needs in the classroom
- 4) A recognition that trainees with additional input based on (1), (2) and (3) above may be in a position to disseminate effective inclusive practice in both their schools and clusters of schools. Thus the route is based on the principle that

expertise is something to be shared to increase capacity across local and wider contexts, not something to be held within the individual as a perceived “expert”

5) A recognition that the needs of the child and their potential for development go beyond the walls of the classroom, and that increasingly trainees need to be aware of how to work effectively both with parents, and other professionals across health and social care, particularly in relation to children with complex needs.

Principles related to effective practice in ITT for developing effective practice in working with children with SEND

6) A recognition that participants on the route are beginning teachers and that a) course input needs to be well matched to their stage of development, and b) needs to facilitate their reflection on how the specific input on the route relates to their experience on their wider PGCE/SD programmes

7) A recognition that for teachers to develop as professionals, particularly in relation to working effectively with children with SEND, they need to develop the facility to critically reflect on their practice and to be able to effectively integrate expert and theoretical knowledge with tacit and experiential knowledge gained from experience in the classroom. As such the route will be predicated on making constructive use of their experience in school as a platform for their developing thinking about inclusive pedagogy and working effectively with children with SEND

8) An understanding that given the significant curriculum requirements for ITE courses, the vast majority of which are 1 year PGCE/SD routes, it was not possible for students to gain the necessary skills and knowledge, from the perspective both of available curriculum time and in terms of their rate of development as practitioners, in that one year period alone

9) A recognition that resources developed for the route, can and should be made available to the wider PGCE/SD student community

10) A recognition that outcomes from the evaluation and dissemination phases can and should be applied to the development of the whole PGCE/SD programmes nationally.

The policy issues

The different positions implied by medical and social models of disability still penetrate in to ongoing conflicts between psychological and sociological approaches to special education (Barton, 1988; Burman, 2008). The potential benefits that arise from categorizing children in to different groupings that allow expertise to be focused on their particular needs, conflict with the negative consequences that also arise from seeing particular groups of children as different or special. As such, an inclusive approach might be seen as being in conflict with the very idea of “special” education. Debates about teacher knowledge and teacher practice in relation to inclusion and special educational needs (SEND) link to international debates about how teacher education in relation to SEND should be constructed and delivered. In much of Europe, the USA, and many parts of the developing world, there has historically been an established practice of specialist training for teachers of children with SEND, who would in the past go on to teach in specialist provisions for children with SEND, although there is an increasing trend for such teachers to start and continue their careers in mainstream settings as well (Hodkinson 2009; Hegarty 1998). For a variety of possible reasons, this has not been the case in the UK in recent decades (Hodkinson 2009, Garner 1996).

The context for this project is founded in concern amongst UK policy makers that in initial teacher training in the UK there is not enough emphasis on SEND. Evidence that increased specialist training for pre-service teachers in SEND will lead to more effective SEND practice includes: The Lamb Inquiry, DCSF 2009, Recommendation 7; Salt Review DCSF 2010, Recommendations 10,11; DfE Research Brief 115 2011; as well as some research evidence including Brown et al 2008 (USA); Frey et al 2012 (USA); Hausstätter and Takala 2008 (Finland). Similar concerns have also been raised in the 2015 Carter Review of initial teacher training (DfE, 2015). The current UK policy trend is thus towards greater emphasis on SEND specific training. It is worth noting that (although this is a gross generalization), this is in contrast to something of an opposite trend in the USA, where although there is a much more clearly embedded tradition of specialist training for special educators, since the passing of the Individuals with Difficulties Education Act (IDEA) in 1997, there has also been growing debate about mainstreaming (Kavale, 2002) and the extent to

which specialist knowledge, restricted to special education teachers, is the best way to achieve good outcomes across different groups of children (Brownell et al. 2005; Jones and West 2009). In Europe, the picture is also quite varied, although the broad trend is similar to that in the USA (European Agency, 2012). The essential question remains that posed by Lewis and Norwich (2005) as to whether there is a 'special pedagogy' in relation to SEND, as if there is not, the rationale for specialist training (as well as specialist provision) is much less clear.

Policy barriers/opportunities in terms of developing ITT programmes in this context?

Consultation with the wider IoE and Swiss Cottage partnership has indicated that a number of special schools, particularly in the context of School Direct, are keen to offer or be involved in the provision of ITT programmes that are "SEND" specific. This is mainly related to their perceived needs for an effective teaching workforce and associated concerns that current ITT routes are not providing them with teachers with the requisite knowledge and skills. However, there are clear structural impediments to this in terms of the current ITT regulations. There are two main elements to this: 1) Age phase requirements – in many special schools, curriculum does not match to age phase as it does in mainstream setting, so requiring students to spend time in a particular age phase, and indeed to have an age phase specific qualification as per the current regulations, is not seen as matching with the needs of special schools. It also introduces complications for special schools offering SD places, 2) Coverage of/meeting standards in terms of teaching the national curriculum; this is particularly relevant for Secondary in that many providers and special schools with SD places are concerned that offering courses such as 'English and SEND', particularly where there would be extended time in a special school would lead to serious concerns from the National College as to whether the student could meet the current requirements for meeting the Teaching Standards. There may be a need for further clarification on how such courses could be structured and still be sure of meeting the ITT regulations. This resonates with parallel concerns highlighted in the *Carter Review* about how support for subject specific pedagogy in the context of SEND can be supported in ITT.

In terms of the IoE SEND in ITT project, this second issue has been of significant concern in respect of achieving sustainability of a Secondary PGCE SEND option beyond the current pilot project.

A specialist SEND route?

The question as to whether we should have specialist SEND routes cannot be considered in isolation from the wider debates about inclusion and special education outlined above. The problem/requirement for an SEND route are clear from a long standing range of evidence indicating concern about the preparation of teachers in the UK in terms of SEND. This is backed up by responses to consultation with schools as part of the ITT in SEND project – both special and mainstream schools (including interviews with a range of mainstream school leaders) indicates that many do not feel that teachers are well enough prepared for working with children with SEND. Although the national SENCo awards have strengthened provision for those in a SENCo role, it remains the case that particularly in all but the smallest schools, it is not possible for SENCos to meet the demands of inclusive provision for children with SEND across the school by themselves, particularly where the role is expanded to include responsibility for safeguarding, EAL etc. (see Tissot 2013; Qureshi 2014). The problem is in a sense clear enough, but the answer is not. It is contextualized by the ongoing international debate about how to best conceptualize and approach special educational needs. It is also the case that the wider structural approach to provision needs to be considered in tandem with issues of teacher workforce development, i.e. if you are going to focus on specialist provision then you need a different model of teacher education than if you are going to move to a ‘mainstreaming’ position. However, the current SEND reforms in terms of the Children and Families Act and the revised Code of Practice do provide a reasonably clear policy direction, and indeed the SEND in ITT project sits within that broad policy thrust. This could be encapsulated as follows:

1. A Mixed Economy of Special and Mainstream provision where parental choice and family consultation are given primacy
2. A recognition of the importance of inclusive pedagogy but at the same time an understanding that detailed knowledge about specialist diagnostic categories and child development is important if the needs of children are to be met (see Mintz 2014).

However, even with this useful policy remit, a number of questions remain. In particular, with a mixed economy, it may be that special schools and mainstream schools have different training needs. Whether this is the case partly depends on the structural relationship between special and mainstream schools. Over the last decade the general policy thrust has been to see special schools as acting in an advisory role to mainstream schools, although the evidence for the effectiveness of this remains limited, and the funding and clarity of this role for special schools in the sector is not always well supported (although Swiss Cottage is a strong example of how this can work). It could be that what is needed is a strengthening of this role, perhaps along the lines of the Israeli system, where specialist resource centres are funded to provide an advisory role to mainstream schools, with a specific training route for SEND for teachers working in these centres.

There are, however, considerable concerns about a bifurcated system, with separate training routes for general and SEND teachers. These concerns are most clearly seen in the US system, where as noted above, the overall policy trend is away from specialist towards general training. The reason for this is that a specialist SEND teacher workforce has the danger of entrenching the idea that only some teachers can work with children with SEND, and that other teachers do not need to be concerned. A range of evidence (see for example Mintz 2007) suggests that teacher attitude and confidence is at least a significant element in achieving effective inclusion. In other words, unless we want to go back, to a fully bifurcated pre-Warnock provision, we need to be thinking at least to some extent about the training needs in relation to SEND and inclusion of all teachers.

At the same time, evidence also suggests that greater knowledge about child development and specialist diagnostic categories is important, and given the constraints on the ITE curriculum and funding for ITE provision, it is difficult to see how a significant increase in content for all trainee teachers in these areas could be achieved, without a significant and likely unsupportable increase in costs. That is why in the SEND in ITT project we adopted a 'cascade' approach whereby additional input to some trainee teachers, extending beyond just their ITE year, would facilitate them developing a role in disseminating good practice.

Some feedback from special school partners, garnered during the SEND in ITT project, also suggests that a period in mainstream school provision could be of benefit, for teachers who then go on to specialize.

Evaluation: Methodology

A mixed methods approach using both a pre and post-test comparison between Likert scale questionnaire items and in depth interviews with a sample of participants was employed.

Quantitative methods

A pre and post-questionnaire focusing on attitudes and knowledge towards inclusion and SEND was completed by 41 students on the specialist route ('intervention' group) and 58 other students who were following the general PGCE programme but not receiving the additional content in the SEND specialist route ('control' group). Most elements on the questionnaire consisted of Likert style questions (where the options were: 1) Strongly Agree, 2) Agree, 3) Tend to Agree, 4) Tend to Disagree, 5) Disagree, 6) Strongly Disagree). Some elements were open questions where participants entered free text responses. Pre intervention questionnaires were completed in December 2013 and post intervention questionnaires initially in July 2014.

Comparisons of characteristics were undertaken using a Chi squared test. Comparisons between baseline and follow up responses to questions for Likert style questions were undertaken using the Mann-Whitney test. This returns a critical value termed U for each comparison, which is used to calculate a p value.

Interviews were undertaken in May – June 2014 with a sample of 4 primary and 4 secondary students as well as 6 school mentors and 2 university tutors working directly with these students.

The student sample was selected via a stratified design based on a) an equal ration of PGCE and School Direct students and b) an equal ration of students who had scored a high score and a low score on the baseline question related to knowledge of SEND. This was intended to produce a representative sample from the whole intervention cohort.

Interviews were conducted via an interview guide which focused on:

- **For the students:** development in attitudes to and knowledge about SEND, the impact of the experience of the special school experience, recommendations for further development of the specialist route. Particular attention was paid to the factors influencing a change in attitude or knowledge
- **For the mentors/tutors:** their views on the experience and progress of the student, general views on the effectiveness of current preparation for working with children with SEND in ITT courses and in terms of general workforce development (i.e. for teachers in post).

Interviews were audio recorded and transcribed. A qualitative data analysis was undertaken. A coding structure was designed based on the key project questions and source references coded to relevant data nodes using the Nvivo analysis software. Certain nodes were also coded for orientation as negative/barriers or positive/facilitating. A series of matrix coding queries were undertaken, particularly to identify the factors influencing a change in attitude or knowledge (i.e. where a source reference indicated a discussion about change in attitude or knowledge, the matrix coding query identifies when this is associated, in the same source referenced, with an identification by the participant of their perception for the reason behind this change).

Questionnaire analysis January 2015

Students in the intervention group completed a further follow up questionnaire on their development in attitude, knowledge and understanding about working with children with SEND, in January 2015. This questionnaire was designed to capture the emergent learning from their experience of the Year 2 curriculum. Due to logistical issues a slightly smaller sample completed this follow up questionnaire and due to the complexities in dealing with missing data points in dependent sample Likert group data, a series of descriptive statistics are used to indicate the progression in attitude/knowledge across time points December 2013, July 2014 and January 2015 for the intervention group.

Quantitative evaluation results

The following tables indicate the overall characteristics of the intervention and control groups at baseline and follow up.

1. Characteristics of intervention and control groups

	Intervention		Control		Total		
	%	n	%	N	%	n	p-value
PGCE	81	33	90	89	87	122	.130
Primary	49	20	44	44	46	64	.639
Aged 20-30	85	35	86	84	86	119	.374
Female	83	34	72	71	76	105	.190
No prior experience of working in schools	28	11	26	26	27	37	.881
> 3 years prior work in schools	36	15	39	38	38	53	.318
No prior experience of working with children with SEND	34	14	41	41	39	55	.423
Friend/relative with SEND	42	17	39	37	40	54	.783
Has SEND	20	8	7	7	11	15	.034
Total	100	41	100	99	100	140	

Intervention sample were more likely to have SEND (p-value = .034), otherwise there is no significant difference in the characteristics of the two samples.

2. Baseline control sample – comparison between those who completed follow-up questionnaire and those who did not

There is no significance between those who completed the follow up questionnaire and those who did not, in terms of demographic characteristics or baseline attitudes/knowledge re SEND. (This is an important point as the attrition rate was (not unexpectedly) high for the control group).

a) Demographic characteristics

	Completed follow up		Did not complete follow up		Total		
	%	n	%	N	%	n	p-value
PGCE	91	53	88	36	90	89	.561
Primary	41	24	49	20	44	44	.465
Aged 20-30	83	48	90	36	86	84	.333
Female	68	39	78	32	72	71	.293
No prior experience of working in schools	26	15	27	11	26	26	.914
No prior experience of working with children with SEND	41	24	42	17	41	41	.993
Friend/relative with SEND	36	20	44	17	39	37	.439
Has SEND	7	4	8	3	7	7	.928
Total	100	58	100	41	100	99	

b) Attitudes/knowledge

	U	p-value
Special school provision works well for some children with special educational needs and disabilities	799	.381
Teachers in mainstream classrooms can make adaptations that will meet the needs of most children with special educational needs and disabilities	924	.914
I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom in a mainstream school	846	.428
I am concerned that I will be more stressed if I have students with significant special educational needs and disabilities in my class in	913	.840

a mainstream school		
If teachers have positive attitudes and understanding then children with special needs can be effectively included in mainstream classrooms	835	.544
I am concerned that I will have inadequate support/resources to enable me to teach inclusively	916	.860
I understand the ways in which special schools work to support children with special educational needs and disabilities	883	.755
I have the knowledge and skills to teach students with complex learning difficulties	891	.695
I have the knowledge and skills to teach students with moderate learning difficulties	906	.917
I have the knowledge and skills to teach students with mild learning difficulties	898	.735
I have the knowledge and skills to teach students with difficulties with reading and spelling	821	.307
I have the knowledge and skills to teach students with autism	808	.326
I understand how to work effectively with other adults in the classroom to achieve effective inclusion of children with special educational needs and disabilities	899	.733

3. Understanding of SEND at baseline

Attitudes about SEND

(N.B. The lower the mean score the higher the agreement with the statement)

The intervention group were significantly more likely to agree than controls were that: Teachers in mainstream classrooms can make adaptations that will meet the needs of most children with special educational needs and disabilities (U=1244; p-value=.005)

If teachers have positive attitudes and understanding then children with special needs can be effectively included in mainstream classrooms (U=1232; p-value=.006)

Table of comparisons

	Intervention		Control			
	N	Mean rank	N	Mean rank	U	P-value
Special school provision works well for some children with special educational needs and disabilities	39	64.28	86	62.42	1627	.775
Teachers in mainstream classrooms can make adaptations that will meet the needs of most children with special educational needs and disabilities	40	51.60	88	70.36	1244	.005
I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom in a mainstream school	40	62.65	88	65.34	1686	.691
I am concerned that I will be more stressed if I have students with significant special educational needs and disabilities in my class in a mainstream school	40	66.66	88	63.52	1674	.646
If teachers have positive attitudes and understanding then children with special needs can be effectively included in mainstream classrooms	40	51.30	86	69.17	1232	.006

I am concerned that I will have inadequate support/resources to enable me to teach inclusively	40	61.03	88	66.08	1621	.460
I understand the ways in which special schools work to support children with special educational needs and disabilities	40	67.19	87	62.53	1612	.494

Understanding of term 'inclusive pedagogy'

No difference was observed between intervention and control groups.

	Intervention		Control			
	N	Mean rank	N	Mean rank	U	P-value
I understand what the term 'inclusive pedagogy' means	38	66.97	88	62.00	1540	.439

Experience/understanding of working with children with SEND

The intervention group was significantly *less* likely to agree than controls that:

I have the knowledge and skills to teach students with moderate learning difficulties
(U=1293; p-value=.015)

I have the knowledge and skills to teach students with autism (U=1396; p-value=.065)

	Intervention		Control			
	N	Mean rank	N	Mean rank	U	P-value
I have the knowledge and skills to teach students with complex learning difficulties	40	70.23	88	61.90	1531	.221
I have the knowledge and skills to teach students with moderate learning difficulties	40	75.18	87	58.86	1293	.015
I have the knowledge and skills to teach students with mild learning difficulties	40	69.76	88	62.11	1549	.250
I have the knowledge and skills to teach students with difficulties with reading and spelling	40	69.04	88	62.44	1578	.327
I have the knowledge and skills to teach students with autism	40	72.60	87	60.05	1396	.065
I understand how to work effectively with other adults in the classroom to achieve effective inclusion of children with special educational needs and disabilities	39	71.53	88	60.66	1422	.102

The differences identified between the intervention and control groups are interesting. Given that to a significant degree the intervention group were a self-selecting sample, it is not surprising that they differed from the control group on some characteristics. It is worthy of note that they felt they were less likely to have

the required knowledge and skills to teach some groups of children with SEND.

4. Understanding of SEND at follow up

Attitudes about SEND

(N.B. The lower the mean score the higher the agreement with the statement)

The intervention group was significantly more likely to agree than controls were that:

- special school provision works well for some children with special educational needs and disabilities (U=685; p-value=.000)
- teachers in mainstream classrooms can make adaptations that will meet the needs of most children with special educational needs and disabilities (U=655; p-value=.000)
- if teachers have positive attitudes and understanding then children with special needs can be effectively included in mainstream classrooms (U=751; p-value=.003)
- I understand the ways in which special schools work to support children with special educational needs and disabilities (U=535; p-value=.000).

Table of Comparisons

	Intervention		Control			
	N	Mean rank	N	Mean rank	U	P-value
Special school provision works well for some children with special educational needs and disabilities	40	37.61	57	56.99	685	.000
Teachers in mainstream classrooms can make adaptations that will meet the needs of most children with special educational needs and disabilities	40	36.88	56	56.80	655	.000

I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom in a mainstream school	40	49.31	57	48.78	1127	.925
I am concerned that I will be more stressed if I have students with significant special educational needs and disabilities in my class in a mainstream school	39	53.95	57	44.77	899	.100
If teachers have positive attitudes and understanding then children with special needs can be effectively included in mainstream classrooms	39	39.24	57	54.83	751	.003
I am concerned that I will have inadequate support/resources to enable me to teach inclusively	39	51.03	58	47.64	1052	.548
I understand the ways in which special schools work to support children with special educational needs and disabilities	40	33.88	56	58.95	535	.000

Understanding of Term 'Inclusive Pedagogy'

No difference between intervention and control groups.

	Intervention		Control			
	N	Mean rank	N	Mean rank	U	P-value
I understand what the term 'inclusive pedagogy' means	40	47.23	56	49.41	1069	.678

Knowledge re working with children with SEND

Intervention group were significantly *more* likely to agree than controls were that:

I have the knowledge and skills to teach students with moderate learning difficulties (U=857; p-value=.019)

I have the knowledge and skills to teach students with mild learning difficulties (U=893; p-value=.033)

I understand how to work effectively with other adults in the classroom to achieve effective inclusion of children with special educational needs and disabilities (U=892; p-value=.026)

Table of comparisons of knowledge at follow up by arm

(1 = strongly agree with each statement through to 6 = strongly disagree)

	Intervention		Control			
	N	Mean rank	N	Mean rank	U	P-value
I have the knowledge and skills to teach students with complex learning difficulties	40	44.15	58	53.19	946	.112
I have the knowledge and skills to teach students with moderate learning difficulties	41	41.90	57	54.96	857	.019
I have the knowledge and skills to teach students with mild learning difficulties	41	42.78	57	54.33	893	.033

I have the knowledge and skills to teach students with difficulties with reading and spelling	41	44.62	58	53.80	969	.090
I have the knowledge and skills to teach students with autism	40	44.68	58	52.83	967	.140
I understand how to work effectively with other adults in the classroom to achieve effective inclusion of children with special educational needs and disabilities	41	42.74	58	53.13	892	.026

Change in attitudes and understanding of SEND between baseline and follow up – comparison between arms

An independent-samples t-test was conducted to compare the mean differences in change of attitudes and understanding in the intervention and control arms between baseline and follow up.

Change in attitudes about SEND

There was a significant difference between the intervention and control arms in the mean change between baseline and follow-up in the level of agreement with the statements: *“Special school provision works well for some children with special educational needs and disabilities”* ($p=.054$); and *“I understand the ways in which special schools work to support children with special educational needs and disabilities”* ($p=.000$). Differences between intervention and control arms for other changes in attitudes between baseline and follow up were not significant (see table). These results suggest that the SEND Experience had an effect on certain attitudes about SEND. Specifically, our results suggest that ITT students who participated in the SEND Experience showed a greater change than those who did not in agreeing that special school provision works well for some children with special educational needs and disabilities; and in agreeing that they understood the ways in which special schools work to support children with special educational needs and disabilities. It would seem likely that the experience spent at a special school

provision (Swiss Cottage) is responsible for this effect, and this is supported by triangulation to the qualitative interview discussed later in the report.

Table of comparisons between arms of mean change in attitudes about SEND between baseline and follow-up

(1 = strongly agree with each statement through to 6 = strongly disagree, so a change reflecting stronger agreement with a statement is represented by a minus figure)

	Arm	Mean change (SD)	t- test (df)	P value
Special school provision works well for some children with special educational needs and disabilities	Intervention	-.6053 (1.17495)	-1.953 (87)	.054
	Control	-.1569 (.98737)		
Teachers in mainstream classrooms can make adaptations that will meet the needs of most children with special educational needs and disabilities	Intervention	-.1282 (1.03057)	-.389 (87)	.698
	Control	-.0200 (1.47759)		
I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom in a mainstream school	Intervention	.0769 (1.42135)	-.257 (88)	.797
	Control	.1569 (1.48825)		
I am concerned that I will be more stressed if I have students with significant special educational needs and disabilities in my class in a mainstream school	Intervention	.2632 (1.51896)	1.065 (87)	.290
	Control	-.0980 (1.62794)		
If teachers have positive	Intervention	.0526 (.92845)	-.285	.776*

attitudes and understanding then children with special needs can be effectively included in mainstream classrooms	Control	.1200 (1.28793)	(85.8)*	
I am concerned that I will have inadequate support/resources to enable me to teach inclusively	Intervention	.3684 (1.36404)	1.075 (88)	.285
	Control	.0192 (1.62686)		
I understand the ways in which special schools work to support children with special educational needs and disabilities	Intervention	-1.7692 (1.18013)	-3.709 (85.5)*	.000*
	Control	-.6200 (1.73664)		

*Equal variance not assumed (Levene's Test for equality of variances)

Change in understanding of term 'inclusive pedagogy'

No difference between intervention and control groups was detected.

Table of comparisons between arms of mean change in understanding of term 'inclusive pedagogy' between baseline and follow-up

(1 = strongly agree with each statement through to 6 = strongly disagree, so a change reflecting stronger agreement with a statement is represented by a minus figure)

	Arm	Mean change (SD)	T test (df)	P value
I understand what the term 'inclusive pedagogy' means	Intervention	-.5405 (1.06965)	-.221 (85)	.826
	Control	-.4800 (1.38858)		

Change in knowledge/skills of working with children with SEND

Table of comparisons between arms of mean change of knowledge/skills between baseline and follow-up

(1 = strongly agree with each statement through to 6 = strongly disagree, so a change reflecting stronger agreement with a statement is represented by a minus figure)

	Arm	Mean change (SD)	T test (df)	P value
I have the knowledge and skills to teach students with complex learning difficulties	Intervention	-1.1538 (1.34826)	-2.037 (89)	.045
	Control	-.5577 (1.40606)		
I have the knowledge and skills to teach students with moderate learning difficulties	Intervention	-1.5750 (1.03497)	-2.986 (89)	.004
	Control	-.764 (1.45035)		
I have the knowledge and skills to teach students with mild learning difficulties	Intervention	-1.1750 (.87376)	-1.787 (89)	.077
	Control	-.745 (1.30909)		
I have the knowledge and skills to teach students with difficulties with reading and spelling	Intervention	-1.0000 (1.08604)	-1.237 (90)	.219
	Control	-.7115 (1.12610)		
I have the knowledge and skills to teach students with autism	Intervention	-1.5641 (1.27310)	-1.545 (89)	.126
	Control	-1.0385 (1.81455)		
I understand how to work effectively with other adults in the classroom to achieve effective inclusion of children with SEND	Intervention	-1.3846 (1.01607)	-2.528 (89)	.013
	Control	-.7500 (1.29668)		

There was a significant difference between the intervention and control arms in the mean change between baseline and follow-up in the level of agreement with the statements: *"I have the knowledge and skills to teach students with complex*

learning difficulties”(p=.045); *“I have the knowledge and skills to teach students with moderate learning difficulties”* (p=.004); and *“I understand how to work effectively with other adults in the classroom to achieve effective inclusion of children with special educational needs and disabilities”* (p=.013). Mean change in level of agreement with the statement, *“I have the knowledge and skills to teach students with mild learning difficulties”* was of borderline significance (p=.077). Differences between intervention and control arms for other changes in knowledge/skills between baseline and follow up were not significant (i.e. teaching students with difficulties with reading and spelling and teaching students with autism. (See table.)

These results suggest that the SEND Experience had an effect on knowledge and skills in teaching children with SEND. Specifically, our results suggest that ITT students who participated in the SEND Experience showed a greater change than those who did not in agreeing that they had the knowledge and skills to teach students with complex, moderate and mild learning difficulties, and work effectively with other adults in the classroom to achieve effective inclusion of children with special educational needs and disabilities. It seems likely that this is due either to the special school experience at Swiss Cottage and/or to the other direct specialist input on SEND delivered as part of the programme. There is again some support from the qualitative data in respect of this which will be discussed later in the report.

Additional Questionnaire Data

The follow up questionnaire for the intervention group included some specific questions to their experience in the pilot programme as follows:

Q8: In what ways, if any, has the SEND experience helped you develop your practice with children with SEND? If possible give examples.

39 responses.

Practical tips and strategies, in general: 4

Approaches re multi-sensory learning, in particular: 8

Collaboration with colleagues: 7

Knowledge in relation to range of SENDs: 6
Importance of individual/ starting with the child: 6
Developed differentiation skills, including re SEND: 6
Being inclusive: 5
Confidence in general: 4
Communicating/consulting with children: 4
Confidence in working with children (with SEND): 3
Swiss Cottage a vital experiential opportunity/ theory into outstanding practice: 3
Good practice for SEND and mainstream: 2
To question and reflect on SEND: 1
Political nature of disabilities: 1
Generally raised awareness: 1
Importance of links with parents: 1

This data can be compared to the individual session evaluations. When asked what the key areas of learning were that they had gained in the sessions, the most frequent student responses were;

From the IOE taught sessions:

- understanding how to use alternative methods of recording
- understanding when to change learning objectives to meet the needs of different children
- how to ensure effective communication with the SENCo
- using P scales as a method of assessment
- how to monitor if a particular intervention is making a difference
- effective approaches to using teacher assistants
- use of multisensory approaches.

From the week at Swiss Cottage School:

- increased confidence in working with students with PMLD and severe learning difficulties
- increased understanding of effective behaviour management strategies with children with social and emotional difficulties
- strategies for effective communication including non-verbal communication;

understanding of working with children with autism

- understanding of working with the team around the child, including teaching assistants (TAs), speech and language therapists, occupational therapists and child and mental health service teams.

Q9a: Degree of agreement with the statement (in reference to the week at Swiss cottage): The experience of working in a special school influenced what I have done in a mainstream setting

	Frequency	Percentage
Strongly agree	18	43.9
Agree	17	41.5
Tend to agree	5	12.2
Tend to disagree	1	2.4
Total	41	100.0

This data suggests that the special school experience had a considerable effect on the work done in mainstream settings, which most of the students subsequently went on to in terms of mainstream teaching placements and NQT posts. This can be triangulated with the qualitative data discussed later in the report.

Q9b. Degree of agreement with the statement (in reference to the week at Swiss cottage): The experience of working in a special school influenced what I have done in a mainstream setting - comparison by student phase (no significant difference – p-value is .293)

	Student Phase		Total
	Primary	Secondary	
Strongly agree	11	7	18
	55.0%	33.3%	43.9
Agree	8	9	17
	40.0%	42.9%	41.5%
Tend to agree	1	4	5
	5%	19.0%	12.2%
Tend to disagree	0	1	1
	0%	4.8%	2.4%
Total	20	21	41
	100%	100%	100%

Q9. Ways in which the experience of working in a special school (i.e. Swiss Cottage) influenced work in a mainstream setting

This is a thematic analysis of this open question on the questionnaire.

36 responses.

Starting with/focussing on the individual child: 18

More collaborative work with colleagues: 10

Using more visual/sensory techniques to aid inclusion: 6

Using observation of behaviour techniques: 2

Seeing behaviour management more constructively: 2

Valuing all progress not just academic: 2

Clarity: 1

Use of positive vocabulary: 1
 Breaking learning into steps: 1
 Everything: 1
 Focus on communication: 1

Q10. Degree of agreement with the statement: I was able to make links between the SEND Experience and the wider PGCE programme

	Frequency	Percentage
Strongly agree	18	43.9
Agree	16	39.0
Tend to agree	7	17.1
Tend to disagree	0	0.0
Total	41	100.0

Q11: Examples of links made between SEND Experience and the wider PGCE programme

This is a thematic analysis of this open question on the questionnaire.

26 responses.

Stimulated thought/changed mind-set re: planning/delivering inclusive lessons: 12
 Individual-based learning/differentiation: 3
 Behaviour management: 3
 Awareness about SEND: 3
 Child protection: 1
 Made links to other modules/sessions within the PGCE: 3
 Importance of relationships with colleagues: 4
 Importance of relationships with parents: 2
 Applied knowledge to other placements: 2

Qualitative Evaluation Results

Research participants involved in interviews are identified in this document by a code as follows:

P1 to P4 Primary Student Participants 1 to 4

S1 to S4 Secondary Student Participants 1 to 4

Key Identified Themes

Data items in the tables below refer to counts of source references, i.e. the number of instances in the text data that a source reference was coded to that category.

Did the course make a positive difference to the thinking of students around inclusion and SEND?

Factors influencing a change in attitude or knowledge by orientation

	A: Negative; barriers	B: Positive; facilitators
1 : Mainstream placement	0	3
2 : SEND Experience generally	0	12
3 : Swiss Cottage	4	20
4 : Taught sessions at IOE	1	16
5 : Unspecified derivation of change	0	0
6 : Wider PGCE course	0	1

Factors influencing a change in attitude or knowledge by orientation by research participant

	P1	P2	P3	P4	S1	S2	S3	S4
1 Mainstream placement	0	0	1	1	0	1	4	1
2 : SEND Experience generally	3	2	3	2	0	3	5	0
3 : Swiss Cottage	2	2	5	9	3	4	8	10
4 : Taught sessions at IoE	1	6	3	5	0	5	2	5
5 : Unspecified derivation of change	0	0	0	1	0	0	0	1
6 : Wider PGCE course	1	0	0	0	1	0	0	0

The data in these two tables indicates that in the vast majority of cases, where a change in attitude or knowledge can be identified as being related to the specialist route input, this can be categorized as positive change.

Example source references:

Swiss Cottage Negative:

Student S1:

You see a lot of the rest of the SEND cohort, I could see, you know, took a great deal away from the week at Swiss Cottage, for example, because they hadn't had any particular experience working with special needs children before, whereas I'd had a fair amount more experience. While I wouldn't say I didn't gain anything from it I think there was less for me to take away, there was less that was new that I hadn't

seen before. In terms of being a classroom teacher I would say there isn't an awful lot, because, you know, as a student teacher you are given so many points to focus on all at once, and so it is very difficult to, you know, bring the focus back to an individual child

Taught Sessions at IOE Positive

Student P4:

I was really pleased in a recent lecture or workshop when someone said, I can't remember who it was, someone said you can actually group children together, so you are still planning for the individuals, but then you are thinking oh that child's quite similar, that child has similar needs, so you are still planning for those individuals, but you are doing it in a more manageable way for a whole class really, so I'm so pleased someone said that, I thought oh, it is possible. Because when you go and see a class in Swiss Cottage, or College Park, and they are doing all these wonderful things, each individual, I was really pleased that someone said that, that made me realise it is possible, you can plan for individuals and take them into account, and yeah, that was one thing that made me really, really pleased. I just think as well it's not thinking about oh they've got this particular statement or medical need so we are going to do that for them, because obviously that doesn't work for every child with that particular need or...and every child is so different that you can't...

What difference did the course make to student teacher attitudes to inclusion?

Changes in attitude to Inclusion by factor influencing change (where such a factor is identified)

	A: Ability grouping	B: General attitudes to inclusion	C: Social v. medical	D: Starting with the child
1 : Mainstream placement	0	2	0	0
2: SEND Experience generally	1	2	0	3
3: Swiss Cottage	0	1	0	4
4: Taught sessions at IOE	1	0	1	1
5: Unspecified derivation of change	0	0	0	0
6 : Wider PGCE course	1	0	0	1

Source references were drawn from only four students P1, P3, S2 and S3. When considered in relation to the quantitative data on attitude change, which indicates a significant change in attitude for a number of questionnaire items, it should be noted here that the data here relates to identifying factors responsible for a change in attitude. Although this was explicitly explored in the interviews, as the data table reflects, some students found it more difficult to specifically identify such factors. This

may suggest that students may be aware of an overall change in attitude, but that these are not always conceptually aligned to particular events or course elements.

Example source references:

Starting with the Child: Swiss Cottage School

Student S2:

Yeah, I think the week at Swiss Cottage was, I came away from that being very conscious of kind of pupil led learning. So kind of the idea of focusing on the pupil.

S3: So just being aware of this idea of being pupil led, and maybe not necessarily taking specific things away and going right I've done that there I'm going to do this here, but more like just a general attitude towards...a sense of patience, you know, a sense of remembering the hard work that's going on for some of those pupils.

Starting with the Child: Taught Sessions

Student P1:

But yes, going back to the SEND course I think the biggest conceptual idea from the course was from the first J.... lecture, where it was the idea of where do you locate the special educational need? I think I had a very set medical interpretation of that, it was an identified need, you know, as something wrong with the child, how can we help them, how can we support them in this problem? And the idea that it could be conceptually something that's external for the child, that they have, they just have needs like everyone else but we don't provide for them in an adequate way. But yeah, I think the thing that's most is the idea of starting with what the child can do, the kind of proper child centric learning is the one that has influenced my practice the most, but it's very difficult to put into practice a lot of the time I think, because it is true that that's how you should plan for everyone in the classroom, but then it is very clearly set against the national curriculum which says this child should be, and even if they've got special educational needs, you know, the school still expects two sublevels of progress a year as a minimum, so kind of, I don't know, if they are still

stuck on something do you just try and move them on to get them working on the next thing? It's really difficult to plan in a way that shows that everyone is making progress, and to plan for what the child needs, I think...

The second extract reflects some of the tensions that students experienced between what they understood in the specialist course content about working with the individual child's needs and particular structures in schools and more widely that might make that more difficult. This can be seen in a range of source references as is explored further later in the report.

What difference did the course make to student teacher knowledge re inclusion and SEND?

	A: Diagnostic Knowledge	B: Effective differentiation planning for the individual	C: General understanding about inclusive pedagogy
1: Mainstream placement	1	2	0
2: SEND Experience generally	1	1	1
3: Swiss Cottage	2	4	2
4: Taught sessions at IOE	1	4	1
5: Unspecified derivation of change	0	1	0
6: Wider PGCE course	0	0	0

Diagnostic Knowledge refers to knowledge about particular diagnostic categories, such as autism.

Source references were drawn from six students P1, P2, P3, P4, S2 and S3. As indicated, it should be noted here that the data here relates to identifying factors responsible for a change in knowledge. Although this was explicitly explored in the interviews, as the data table reflects, two students found it more difficult to specifically identify such factors. One student, S1, explicitly stated that he did not feel there had been a change in his knowledge as he felt that he knew much of the

material already – this was in contrast to the rest of the sample. The quantitative data indicates that intervention group students did have significantly greater confidence in their knowledge about some aspects of inclusion and SEND (complex learning difficulties, moderate learning difficulties, mild learning difficulties and working with other adults). The qualitative data did indicate, in the case of 6 students in sample, that a change in knowledge could be identified and linked to the specialist course. However, although there were references to working with children with particular characteristics, these were not frequent enough in the interview data to allow differentiation to any degree between complex/moderate or mild learning difficulties.

Example Source References:

Diagnostic Knowledge (Taught Sessions at IOE)

Student S2:

Yes, I think what the kind of, the lectures and everything, coming into the IOE, I think what that's been helpful for is giving me an overview and a sense of confidence in understanding different processes. I've not been so aware of maybe using specifics from those sessions. I guess in terms of the autism session though it's made me think very carefully about this boy in my year eight class, and be more prepared to know how to help him. Whereas before I was kind of aware of some of the behaviours that may manifest in an autistic child, and I would have maybe been more cautious of going oh I don't want to do things that trigger that child, and all that kind of stuff. Whereas actually now it's more of a proactive thing, being like OK, I need specific instructions, I need, you know, not to confuse things, being aware that he may take things literally, and also aware of watching for signs of anxiety. And so I think whereas before I may be kind of aware of it and cautious about it and maybe not wanting to step in I feel I've got a bit more confidence to step in and go...I'm not just going to ignore the problem and leave him to it because I don't want to upset him, I'm going to try and include him in the lessons.

Diagnostic Knowledge (SEND Experience Generally)

Student S3:

The course has just opened my eyes to, there are needs, there are very complex needs, but again, not qualified for severe difficulties or anything, but I suppose yeah, there are a lot of needs, but I think recognising them, it's not so much recognising the need I suppose either, it's the strengths of that student and the weaknesses of the student, so I think recognition, and I feel I've been able to recognise in this placement, I might not always have been accurate but it definitely has made me much more aware of just things I don't think I would've, you know, thought about before, like even just comprehending instructions, you know, basic things I suppose that you just don't think that kids would have a problem with, and actually like, you know, expressive language can just be very difficult. So I think I'm a bit sharper now at identifying some of those, and I feel like in my daily classes just very, I just, I try and, you know, I talk about, I don't know, I don't think I use the term inclusive with my students but I'm very much like this is everybody's equal space, you know, and yeah, just creating that equality, I want to give, I want them to feel that this is my English class and I'll express my voice as much as anyone else I suppose, so I feel like hopefully I've had an impact on a few students. I've seen myself like confidence from when I started teaching them from when I ended, I actually have seen like confidence levels grow, so that's been really rewarding, hopefully that will keep up, you know, particularly that year seven boy who has Asperger's.

In both these extracts, as is typical with other source references coded to this data node, the students express a developing or emerging understanding of the relevance of knowing about a particular diagnostic category, as well as, and taking tentative first steps in applying this knowledge. This does indicate the importance of developmental stage for student teachers in terms of making knowledge available in the right way and at the right time as well as having realistic expectations for what can usefully be assimilated at a particular stage.

What difference did the course make to student teacher practice re: inclusion and SEND?

	A: Application of inclusive pedagogy	B: Strategies re diagnostic categories
1: Mainstream placement	3	1
2: SEND Experience generally	0	1
3: Swiss Cottage	8	5
4: Taught sessions at IOE	5	1
5: Unspecified derivation of change	1	0
6 : Wider PGCE course	1	0

Source references from all 8 participants are represented in this data table. This may indicate, in contrast to the previous tables, that thinking about practical application in the classroom, as opposed to the more abstract concepts of attitude or knowledge, may have been easier for students to respond to in interview.

Example Source References:

Application of Inclusive Pedagogy (Swiss Cottage)

Student S3:

I mean that boy you were saying, at Swiss Cottage, if you'd had that boy in your class how do you think you'd have been able to deal with him in the mainstream setting, after what you've learnt?

S3: Yeah...I think if that happened to me in this school, you know, again, it really is terrible how we are so quick to put them in...oh he's got background problems, or this, that, you know, and I think it's natural, it's not a teacher thing but I think people do that almost instinctively when, as I say, like behind that is much more complex. But how would I deal with him if I was faced with him say this September? I mean talking to him, I think, you know, is a big thing, trying to see where they are coming from, where the problem, parents, family, I think the communication is essential there. Because the more you know, that's why I'm quite eager to work, to talk with

TAs, even informally, because the more people you have in the classroom or looking, or studying, or working with this child, the more insight because she might see something that I'd never see, that I've never seen.

HA: You are saying this is what they did at Swiss Cottage.

S3: Yeah, definitely, when planning, the teacher might have well, we'll do this, but then the TA will say such a child actually can't, they all input, and it's very personalised then because you just, you are getting a lot of people's views on different students. So yeah, communication with his parents, or family, you know, guardians, other teachers definitely, what have they seen, what strategies did they deploy. And then I think in terms of the classroom, you are probably hearing this all the time but I just think pictures, images, are invaluable, their use is endless I suppose, not just for like EAL learners, all learners, you know, I think everyone has learning needs. Yeah, I think pictures is a good place to start in terms of, again if it's like a communication problem, you know, just having things very, very clear, I think is a big thing, and, you know, consistency as well with them, and getting down to their level I think is a big thing, and, you know, physically just trying to...mentally rather, just trying to see where it is they are going wrong. Even as I'm saying that it's like well I need to have time to actually sit down (24.44) that, which unfortunately in the hour's lesson is very hard to do, so again that's why communication is so important because you are kind of getting a load of patterns together.

HA: Yes, yes. So sharing, give that input.

S3: Yeah.

HA: So don't all do it individually.

S3: Exactly, yeah, that's it, and yeah, I think talking to them, but that doesn't necessarily work either because I've just seen, with any student, with teenagers sometimes the silent treatment, they just won't talk, they won't communicate. But if at all the child is willing to speak about it or whatever I think that's definitely the first port of call, because, you know, you go from there.

HA: And these kind of strategies, where have you learnt those from, do you think?

S3: Um...mainly from Swiss Cottage. In my first school I didn't see any TAs. I met the SENCo, I spoke with her one day, but again I kind of felt a sense of like there's a detachment, even though she had been an English teacher herself, and moved into

SEND, but I feel, a little bit similar to here, it's almost like, it's almost like they...how do I say?

A range of what might be considered inclusive pedagogical strategies are present in this extract and the factor influencing change is clearly identified, as in many other cases throughout the interviews overall, as being related to the special school experience.

Application of Inclusive Pedagogy (Swiss Cottage and IOE Taught Sessions)

Student S4

JM: OK, thank you, so leading on from what you were just saying then about what you've seen could you tell me about what you've learned in terms of strategies and ideas for working with children with SEN from Swiss Cottage maybe, and also the face to face sessions you had on the SEND Experience, if you have.

S4: Yeah, I think one thing I've learnt and I thought I knew it before, but I didn't, is like removing the label and seeing the individual. Because one thing you do as a teacher is you look at a piece of data and you say oh SEN, OK, they've got that. I haven't done that here. I know that one of my children has got a statement, I know that he's got this, but I don't really know any other labels and I don't really care for them. And one of the things I've done is I've got to know my pupils as individuals rather than as on a piece of paper, and that's how I try and do my groups, and that's one of the main things I've learnt from the sessions, that's, I think that's the main thing I've learnt.

JM: Was that one of the boys you were talking about before?

S4: Yeah, definitely. Both of them. And especially in my year eight classes, you know, I know I've got the token naughty boy, but how am I best going to suit him, and what can he do. As opposed to what he can't, what can he do, what does he know, and how can I kind of incorporate that into my lessons to kind of make it so that it's relatable? So for example I did a poetry class and there was a bit of it that was about plantain, and it's like a Caribbean vegetable, and you know, it's really exotic, and I wanted, I incorporated that into my lesson so he could feel a part of it, he could feel like, and he could be an expert in that area because he knows about

the vegetable, and trying to, just trying to tailor my lessons a little bit, even if it's just a little thing, they really appreciate it, pupils who need it really appreciate it. Yeah, that's the main thing I've learnt, even for the Gifted and Talented pupils as well. I think I still struggle more with Gifted and Talented though.

JM: And would you say you saw that from J... 's session and from Swiss Cottage?

S4: Yeah, definitely, definitely, with the visual elements as well. Quite a lot of us learnt about visual learning there as well. Sometimes I have a starter activity that's just a picture, and asking pupils to describe it, because it just helps, it really helps, and not everybody's an audio learner. Being quite expressive as well. My kids are always like miss you are always moving your hands. I did it a lot before, but now I'm extra, extra handy. LAUGHS. That's it really, I'm still learning, so just the little changes for the moment.

Strategies re Diagnostic Categories (Swiss Cottage)

Student P3:

P3 ...um...well I suppose definitely from working in Swiss Cottage there's certain strategies that will work really well, but I wouldn't go as far as saying use this strategy for an autistic learner, for example. It's...

JM: Can you give me an example of something you are thinking about?

P3: So at Swiss Cottage they do a lot of this thing called Attention Autism, it's got lots of different stages, the first stage is really just getting the children to focus on the activity, so you open up a bucket and there's something quite stimulating in there, and it's really watching their reactions, and the next step is them asking to see more of it, or it to stop, so it's really getting the children to realise they have a choice in where this activity goes. And then it kind of builds on that so gradually the children start participating more with the activity. Something like that worked really well for some of the autistic learners, and some of them it really didn't, it's not something that they were engaging in or that I was seeing any kind of progression, particularly. So there are, there's definitely certain strategies that will work really well, but it just really comes down to individuals and whether that's gonna work for them. And even in terms of all the symbols they use at Swiss Cottage, that's really gonna work for some children, it's not gonna work with all of them. So it's knowing that these strategies

exist and drawing on how other...I guess how I picked them up was just watching other people, and how they use them, so really looking at how other people use them and then it's a bit of kind of trial and error I guess, in lots of ways, trying them out and seeing how well the children respond to them. I'm trying to think here if there are any particular strategies we use in this classroom.

Here what works really well as a whole class I think is our displays and how we use that. It's falling down at the moment but the literacy and the numeracy are both working walls, so the work that we are doing currently is up there and it does change. There's always visuals at the front of the class to support the work, so if we are doing literacy I try and put the words up at the side as well, so kind of building independence into the learning as well, I guess, allowing the children to access it in different ways.

Strategies re Diagnostic Categories (Swiss Cottage and Taught Sessions at IOE)

Student P4:

Thinking about the individual, thinking about what they can do, taking in things that they, of course things that they find difficult, but then finding ways around that, so not being like oh that's not possible. I think being incredibly positive. And speaking to additional adults, so maybe of course the SENCo but then the physiotherapist or OTs that come in, that's really important to do. In terms of strategies that I'm applying I guess it would be to make things more multi-sensory, much more active for the children, I find in some ways that's the lessons they enjoy more.

HA: Really?

P4: Yeah. I guess they feel more involved in some ways.

HA: Yes, yes, that's interesting.

P4: And then also they were saying about how many a child with speech and language issues, maybe a child with EAL, sort of learning EAL, they might not always be grouped together but for a certain activity they might have similar needs so they might work together or they might be, perhaps, partnered up, or I could plan for those children, like you know, for that group rather than all the individuals, thirty three. LAUGHS

HA: Thirty three.

P4: Yes. Yeah.

HA: And that came both from Swiss Cottage and from the course.

P4: Yeah, yes.

These extracts indicate a willingness to apply developing knowledge about particular diagnostic groupings, but at the same time an understanding that these need to be applied in the context of the particular individual needs and profile of the child.

How did students conceptualize the relationship between knowledge about diagnostic categories or broad principles of inclusive pedagogy and practice?

Student teachers knowledge and practice: Derivation of change

	C: Relationship between broad understanding and practice	D: Relationship between diagnostics and practice
1: Mainstream placement	0	1
2: SEND experience generally	2	4
3 : Swiss Cottage	0	2
4: Taught sessions at IOE	4	3
5: Unspecified derivation of change	1	0
6: Wider PGCE course	0	1

Source references from all eight participants are represented in this data table.

Example Source References:

Relationship Between Broad Understanding of Inclusive Pedagogy and Practice
(Taught Sessions at IOE)

if I had to choose between the two I would say perhaps practice, because ultimately teachers are educational practitioners, and while the idea was, you know, you want to get a good balance between theory and practice if you have to choose just one then ultimately teachers don't necessarily need to understand the theory behind it so much. It's still going to be important, because, you know, those commonly used strategies may not work with your pupil, but like I say by being presented with a few more of the commonly used strategies, as it were, it gives student teachers a starting point, and, you know, if they implement those strategies and then find they are not helpful they may then have more confidence to then go on and try something else based on the theory that they've hopefully also learnt from the programme, whereas being given a blank canvas to start with is intimidating for most people, you know, not least student teachers who are, yeah, are normally very aware that they know very little to start with, and so perhaps don't feel confident enough to draw up grand, over-arching programmes and say right, this is what we are going to do with this pupil, especially if they haven't observed the actual teacher of the class doing something similar

In this extract, this student, in common with a number of others in the sample, indicates that diagnostic categories are not the key element that they consider when working with a child, and in fact note that in some ways diagnostic categories can get in the way of seeing what a child's actual needs are.

Relationship Between Broad Understanding of Inclusive Pedagogy and Practice
(Unspecified Derivation of Change)

Student S4:

Have you got any times with children, might be with those children, or other children, where it's kind of actually been difficult, and you think well I'm not quite sure what to do?

S4: *Yeah, definitely with him, because sometimes it will work sometimes it won't. With my previous, when I was working at the school last year, working with the young girl with epilepsy was incredibly difficult because she was still on the P level when we left, and we had a statement review and we were wondering whether we were going to put her into a special school, because we didn't see the benefits of anything we were doing with her. She had I think it was thirteen hours a week of intervention, and then she had after school reading, she could just about spell, you know, CVCC words, she was really struggling. So there's been times when I've been working with pupils and I really don't know what to do. Not so much here, and not so much at my first placement either, but definitely in my job last year, or with another girl, she was really keen, she was really, really keen, and every task you gave her she wanted to do it, but she would write things down, she would write so fast, she would read it again and she'd made so many mistakes in there and she just couldn't figure out what it was. And we said, again she got the label dyslexic, and we gave her all the different coloured paper, we tried so many things with her within the department, but we just found that she wasn't making progress, whatever we did, so I would like to know what they are doing now..*

In this extract, we see an explicit avowal of uncertainty, i.e. not being sure what to do, particularly when one or a series of strategies has not been effective. Again, this is common to a number of other responses in the interviews. On one level, this can again be linked to expectations for the developmental stage of the student, but on another it also reflects what might be a productive approach to thinking about the use of knowledge related to diagnostic categories, i.e. it needs to be used tentatively and be assessed in its effectiveness in relation to the individual needs of the child.

Relationship between diagnostic information and practice (SEND Experience Generally)

Student P2:

...and have you, this is slightly related, have your views on the relationship between theoretical and practical knowledge, changed at all since December, do you think?

P2: Yes, and I think that's partially to do with the child as an individual as well. You look at the theory and you can get some, you know, a fantastic, you know, ideas and you can get some fantastic research on disorders or...

HA: Yes.

P2 ...SEN, and you then walk into the classroom and it works for some children, it doesn't work for other children. Yeah. So...I think so, I think you kind of think if someone's done all this research and people have poured this money into this research then I think it's probably a sure fire, you know, this is a really, you know, sturdy way of dealing with a child that has autism, and then you go in and have a child with autism and it's just not that way. So I think it's just you've still, you know, theory, obviously theory's important, you need to understand where all these ideas are coming from and why people need to research in order to get into them, and come up with these ideas, but then you also need to realise that it might not necessarily work. And I think that's quite a big one, just realising that it might not be relevant, but it's still worth knowing. Because if you've tried it and you realise that it's not relevant then OK, you know that that's not worth doing but you can't try something if you've never looked at it in the first place.

HA: So the thing that seems to have stuck out for you is this thing about treating each child as individual.

P2: I think yeah, definitely.

Relationship between diagnostic information and practice (SEND Experience Generally)

Student P3

JM: OK, thank you. So during the SEND Experience we asked you to make links between what you were doing on that and the wider PGCE programme, or try to encourage you to do it, would you say you were able to do that?

P3: Well I suppose it's definitely...um...yeah, definitely what I've learnt in some of the sessions has popped up in some of the other sessions, some of the professional study sessions, definitely, the working with other adults or the one which was about the home and school kind of exchange, it will either...yeah, things that I've learnt in the sessions or from being at Swiss Cottage would definitely come up in discussion

with that, and kind of even just talking to other people on the course as well, and kind of sharing what I've seen and what I've learnt.

JM: Thank you. OK, so next question, and we have talked about this in some ways before, how important do you think that knowing the child is in working with children with SEND?

P3: I think it's probably the most important thing you could do. I know, like at Swiss Cottage you really get an impression of building, starting with the child and building outwards from there. Even the way you see their, they show their, they've got personal learning intention maps, their kind of targets, so even the way that's displayed, they start with a picture of the child and kind of the targets are around there, it's that real sense that the child is at the centre and you build out from that. So I think getting to know the child is probably the most important thing rather than getting to know their condition, for example.

JM: And does that have a place, kind of knowing about autism, or knowing about dyslexia or..?

P3: Yeah, definitely, I think that you need that knowledge as well, and that can kind of help to underpin your understanding of the child, but especially with something like autism, I mean the class I was placed in in Swiss Cottage for my SE1C placement, eight children, five out of those eight were autistic, quite severely autistic, but so different. I gained an understanding but also definitely my understanding deepened, but the strongest thing that came across was how different the learners are, even though they had the same condition. So I'm not sure, I think it really is just getting to know the child rather than the condition.

In common with some but by no means all of the sample, the students in the previous two extracts indicates that knowledge in relation to diagnostic categories has been or can be useful in their practice, again noting that it needs to be used tentatively. Again, the theme common throughout the interviews, that knowing the child and making use of diagnostic knowledge in relation to that is important, is again present in these extracts.

Conceptual Elements re Theory and Practice

Several conceptual elements can be identified in responses:

- theory on inclusion: understanding of principles of inclusive pedagogy
- theory on specific diagnostic categories: understanding about psychological, developmental or cognitive principles related to specific diagnostic categories and understanding of “typical” child development in context
- practical strategies: related either to general inclusive pedagogy or to specific diagnostic categories
- experience of working with children in particular groups or of observing practice by experienced teachers working with children
- understanding the needs of the child/starting with the child.

The identification of these concepts is partly a priority and partly arises from the engagement with the data from the interviews. Although interviewers attempted to probe for differentiation of these concepts in the interviews, in a number of cases, as can be seen from the extracts above, such concepts were not always clearly differentiated in the minds of students. This is not a criticism and is to a significant extent to be expected, particularly in terms of making a strong conceptual delimitation between theory and practice in the classroom. Nevertheless, identifying these areas as conceptually distinct is helpful for our analysis at the same time as recognising that these concepts are not necessarily delimited in the minds of teachers and student teachers.

What was the impact of the Special School Experience on practice in mainstream placements?

Special school impact on mainstream by research participant

	P1	P2	P3	P4	S1	S2	S3	S4
1: +ve Impact of special on mainstream	1	1	1	4	0	2	4	1
2: Tensions/ issues using ideas from special in mainstream	3	0	4	1	3	3	4	1

All students apart from S1 indicated, when asked directly in interviews, that the special school experience had had a positive impact on their practice in mainstream. At the same time, all of the students apart from P2 indicated that there were tensions when applying ideas and strategies from the special school setting observed in mainstream.

Impact of Special on Mainstream (+ve)

Student S3:

S3: None other that are, you know, listed I suppose, but I have a particular year nine boy that I had an interesting journey with this placement, but anyway came to a happy ending, thankfully, but yeah, I was just saying to my mentor earlier perhaps there's something...this boy is very, you know, he's very disruptive, but again ability's there, and that's how the relationship turned, thankfully, I just kept praising him, and we got there, but you know, really just really, really disruptive to the point where, you know, just having no respect. But I suppose what I'm trying to get at is (6.15) the big thing I learnt at Swiss Cottage was yes, there's crazy behaviour going on here, but what's really, really behind it? Is he a bad kid? Probably not. But I think in that intense environment though, when you are trying to deal with twenty-odd, and to me

he's just being a really disrespectful student, but like actually maybe there's something more there. Maybe, you know, I don't know what maybe, but maybe there's something that behaviour issues that has gone unnoticed or something. Because, you know, I don't think he's, like he was quite horrendous to me, and he was quite hurtful and things in things he was saying, but I think deep down he does want to learn, and the last few weeks have proven that, like he's really come on. He wants to impress me now, which has been a huge jump. But, yeah, he sticks out in my mind just as one that, you know, it's kind of will he go through school now with this really bad name that he's a disruptive student when actually there may be something else underneath that.

HA: So that Swiss Cottage experience gave you that sort of perspective where you can stand back a bit, and not see it personally.

S3: Definitely, yeah, I mean not, you know, I suppose not all the time, in the sense that it's very intense in the classroom...

HA: Yes, I'm sure.

S3 ...when you are dealing with it. But it definitely helped me see perspective, definitely.

Impact of Special on Mainstream (+ve)

Student P1:

So it kind of feels like, I mean I still do the thing that we talked about at Swiss Cottage, looking at what they can do and planning for them to do the next, so the questions that they will be targeted on, so we've done quite a lot actually before the final screening check, which we are doing next week, our assessment.

Tensions/Issues using ideas from special in mainstream

Student P:

Proper child centric learning is the one that has influenced my practice the most, but it's very difficult to put into practice a lot of the time I think, because it is true that that's how you should plan for everyone in the classroom, but then it is very clearly set against the national curriculum which says this child should be, and even if they've got special educational needs, you know, the school still expects two

sublevels of progress a year as a minimum, so kind of, I don't know, if they are still stuck on something do you just try and move them on to get them working on the next thing? It's really difficult to plan in a way that shows that everyone is making progress, and to plan for what the child needs, I think.

And....

Yes, I do feel that I learnt a lot very quickly on that placement, ideas that I think are really good practice and as much as possible I would like to put into practice. I think one thing that all schools could do that would be a huge benefit based on the Swiss Cottage model is just having, well-paying TAs from earlier, because just to have the time to sit for an hour extra on a Monday morning, sit down and talk about what happened last week and what you could do to improve on it this week, would be fantastic, because at the moment you get fifteen minutes, well ten minutes before you have to collect the kids, give them the daily plan, say hello, do a bit of resourcing, the final bits, and then you start the day and there's no real time to sit down and talk about the children. I think that would be a good thing for all schools.

Tensions/Issues using ideas from special in mainstream

Student S1:

And the student teacher, unfortunately my interaction with special needs pupils has been far less in-depth because of course I'm working with classes of twenty, thirty children, rather than individual pupils within a classroom environment.

And...

HA: So what influence on your thinking, since December, about how to best provide for children with special educational needs and disabilities has the SEND Experience had, would you say?

S1: That is an interesting question. You see a lot of the rest of the SEND cohort, I could see, you know, took a great deal away from the week at Swiss Cottage, for example, because they hadn't had any particular experience working with special needs children before, whereas I'd had a fair amount more experience. While I wouldn't say I didn't gain anything from it I think there was less for me to take away, there was less that was new that I hadn't seen before. In terms of being a classroom teacher I would say there isn't an awful lot, because, you know, as a student teacher you are given so many points to focus on all at once, and so it is very difficult to, you

know, bring the focus back to an individual child within the classroom when you know you've got other lessons to plan, and you've got to think about assessment for learning in this lesson. You know, there's a deluge of issues and strategies that you have to fit into every lesson, it's very difficult to focus on any one pupil, or any one aspect of that class.

HA: Yes. So you are saying specifically the week at Swiss Cottage probably, was it similar to..?

S1: I very much enjoyed the week at Swiss Cottage, and I observed lots of techniques that I thought were interesting and useful but perhaps not in the setting I am currently in.

HA: Right, what sort of things are you thinking of?

S1: For example I observed lots of things that I think would be useful to me if I was a learning support assistant or a teaching assistant, but less that could be deployed at a classroom teacher level, because the teaching I saw was so tailored to the pupils in the class. They knew the pupils in the class so well, and of course they were a smaller class, so the teacher was able to focus much more on individual pupils. And indeed in the sessions at Swiss Cottage they mentioned their emphasis on personalised learning, which is much, much harder to achieve in the mainstream school environment with the numbers.

These responses are typical of the other source references for this data node, focusing on the differences in classroom structure and working practices (especially in relation to teaching assistants) between special and mainstream settings.

What was the student and tutor evaluation of the SEND Experience?

Evaluation of the specialist route by orientation

	A: Negative; barriers	B: Positive; facilitators
1 : General Evaluation	0	13
2 : Staff views on impact	0	3

General Evaluation

Student P4:

And influence on your thinking, the more, things you've done at the Institute of Education in terms of the course itself there, any way that's particularly influenced your thinking, or your attitudes to SEND?

P4: Um...I don't feel like I would feel prepared enough if I hadn't had the SEND Experience.

HA: Really?

P4: Yeah, I don't think I would've.

HA: Is there anything in particular that stands out?

P4: Just the whole ethos of being like good practice and start with the individual, and we did, someone did the presentations to the whole cohort I don't think it showed maybe enough of what we were doing, all the really great things. And I think it would be really good in some ways if people had access to the Moodle, to the Moodle board, because I think...

Student S4:

So, like, (49.37) so far, I think the Swiss Cottage experience is really valuable. I think if we'd done that for a bit longer it would have been great.

Student S1:

I very much enjoyed the week at Swiss Cottage. I enjoyed the lectures from I think it was J..., something like that? Uh, they were very interesting, it's been very interesting, especially as he took time to emphasise the importance of the fact that when supporting SEN pupils you shouldn't be trying to design a programme where that support is always in place, you should be looking at trying to gradually withdraw support with pupils and promote their independence, and I think that's something that's forgotten quite a lot of the time, both with teachers and teaching assistants in schools, especially with teaching assistants who have an inherent bias that they are being paid to work with that pupil, and if they are not working with that pupil, you know, if they are trying to encourage that pupil's independence they are working themselves out of a job. So he has very much emphasised the fact that you are trying to get the pupils to a stage where they can work independently and you do that by initially providing a large amount of support and then gradually withdrawing it as the pupil becomes more able to work without some of that structure in place.

Staff views on impact on students

IOE Tutor to Student S4:

JM: Do you have any sense that what she's done this year, in terms of the SEND Experience has had any impact on her practice or her thinking?

Tutor to S4: I know that when she talked about it in the seminar everybody was interested, so I really like that model, is it London Met whose students came to Swiss Cottage and then a group of them were..? Not London Met.

JM: Last year?

Tutor to S4: Uhuh.

JM: Yes, they had done this model, they'd been developing it a little while, last year, I think it was Middlesex.

Tutor to S4: I would like to have done something like that, have a group of PGCE students really committed, take part in that, and then present it with the rest of the group. So in a way S was doing that. She said something very telling, her phrase

was something like they could teach us a thing or two about special needs, and about differentiation, that was something she was struck by, that in one of the presentations at Swiss Cottage that day there was that sense of every single child needs thinking about. But so do our kids, S's point was. So that's as much as I can directly answer your question about the...

JM: When you say they?

Tutor to S4: The tutor group.

JM: You said that they could teach us, was that the teachers at Swiss Cottage?

Tutor to S4: The teachers at Swiss Cottage, the presenters of the programme, just the people working so closely, so intimately with children with special needs struck her, struck me.

PCM to Student S2

PCM to S2: No, I think it's great, I think it's such a great opportunity, and you know, I know H is very enthusiastic and has really learnt a lot, and I think that will make her a much stronger and more effective teacher, you know, so I think we will learn a lot from her in the NQT sessions, I think, you know, she will be able to really feedback and stimulate, and stimulate, and you know, that's how we try and do it, so if people are doing things like this then what can we learn? So even if she just poses challenging questions for us I think it would be very useful, because people get in ruts, and having that fresh look, going out, seeing, is very exciting.

Staff views on assimilation by stage

A data node "Ease of Assimilation by Stage" had three source references coded to it from 3 tutors and mentors. These source references all expressed views about the necessity of introducing concepts about inclusion and special needs in a way that can be assimilated by the student based on their developmental stage. For example:

Tutor to Student S1:

They don't believe me when I tell them you will find a point where you'll have a mug of tea and will be standing in your classroom and you'll have some spare time on your hands, because the lesson's been planned, the kids won't misbehave, and that is where your understanding, deeper understanding assessment and special needs,

then starts coming into play because you've got a bit of headspace to deploy it. So I suppose it's a bit of a career thing as well.

This resonated with a comment by Student S1 in his interview:

It's just been very difficult to translate into my practice at the minute, and as we observed earlier that might simply be because as a student teacher I am merely trying to survive the year and get a piece of paper out of it. Later on I would then, perhaps, be looking at improving my practice as it were.

Student teacher views on how the specialist route could be improved

On the questionnaire, students were asked to identify ways in which the follow up questionnaire could be improved. 34 responses were completed by the intervention group.

Key themes in the responses were:

- students noting that all PGCE students should have this opportunity for additional input (9 responses)
- 2 weeks in a special school placement not one (6 responses)
- a practical workshop looking closer at disability (1 response)
- greater emphasis on practical rather than theoretical material (4 responses) with linked comments on how this may be difficult for secondary students teaching different subjects
- concerns about fitting in the additional input with other pressures (3 responses).

A linked question was also included in the interviews about their perceptions of the course and ideas for improvement and students also referred to these areas at other points in interviews. These source references were coded to data nodes, including the node "Best Mix of Theory and Practice" relating to what balance felt there should be between theory and practice. 10 source references from 6 respondents were coded to this node. Of these source references, 3 indicated that the balance in the

course was about right, 3 that more experience in special school would have helped with focusing on effective practice, and 4 that more emphasis on practical strategies would have been helpful, although 3 of those noted that this should still be in the context of understanding theory. For example:

Student S2:

Yeah, I think a little bit more on the specific strategies to, you know, kind of take the theoretical knowledge and then, you know, have a go with some specific strategies a bit more I think would be quite helpful.

Again, as in Conceptual Elements re Theory and Practice on page 71, conceptual differentiation between theory and concepts, even when probed for in interviews, as not always clearly delimited in these responses.

Nevertheless, taking the questionnaire and interview data together, a general theme emerges that a number of students would find both more practical experience working with children with SEND and more suggestions for specific strategies useful, at the same time as finding general theory on both inclusive pedagogy and on, for example, developmental patterns in autism, still useful as background knowledge.

Other comments in the interviews about improvements to the programme were coded to a General Comments node. Analysis of the themes expressed in this node, which included 11 source references from 8 students, indicated:

10 of these were coded as orientation positive and most sources presented general praise about the specialist route rather than substantive suggestions for development, as in:

Student P4:

P4: Um...I don't feel like I would feel prepared enough if I hadn't had the SEND Experience.

HA: Really?

P4: Yeah, I don't think I would've.

HA: *Is there anything in particular that stands out?*

P4: *Just the whole ethos of being like good practice and start with the individual, and we did, someone did the presentations to the whole cohort I don't think it showed maybe enough of what we were doing, all the really great things.*

Several responses were more specific in terms of ideas for development, including:

Student S4:

So, like, so far, I think the Swiss Cottage experience is really valuable. I think if we'd done that for a bit longer it would have been great.

Student S2:

In one of our lectures we really looked at how, looking at the brain and looking at environments and how it all influences. So I suppose it would be interesting to see, basically, the Key Stage Two story of the child.

It is relevant to note that the questionnaire responses on improvements were more substantive and critical in nature than the interview responses, which likely reflects interviewer bias in the process.

How did tutors assess the current provision of SEND preparation by student teachers based on their general experience?

In interviews with mentors and tutors, participants were asked directly about their views on how well student teachers in general (NOT in relation to the IoE specialist route trainees) were prepared for working with children with SEND. 20 source references by 8 tutors and teachers indicated that in general trainees are not well prepared enough:

PCM to Student P3:

And NQTs one thing they find particularly difficult is the differentiation at the beginning but also the management of TAs where there's statemented children. And...

So when, I think NQTs, if they haven't had that experience, especially if they've had six week block placements, suddenly you are accountable for that child's progress but that means engaging with an adult and managing their input, and identifying the training needs. And that, sometimes, is a skillset they don't yet have.

SENCo Student P4:

We've just found over the years that students don't really know, or seem to have much teaching about special needs.

And...

I don't think the teacher training programmes seem to address SEN at all really. I haven't seen the syllabus but from what students have said over the years, coming, and my experience of working with the students, you know, that's just a sort of, quite an eye opener for them really.

And...

...but I think that they just, there seems to be no time given for how you would work with a SEN child. You know, just covering the whole range of disabilities that there could be for SEN. It's a huge subject isn't it? It just doesn't seem to be given any time at all, and I think that's a shame really.

SENCo and School Mentor for Student S1:

I don't think very well prepared. I think, I mean I don't know how different it is if you are doing a BEd, but I certainly think within PGCE the amount of other things that you are having to learn within a year means that I don't see how you almost could, you know, in terms of the time.

School Mentor Student P2:

HA: So can you tell me your views on how well teachers are prepared for working with children with special educational needs and disabilities?

Mentor to P2: Newly qualified teachers?

HA: Yes.

Mentor to P2: Not at all.

HA: Well both, both. Yes, newly qualified teachers.

Mentor to P2: Other teachers that I've worked with, I think from experience teachers that I've worked with over the time gradually improve, I think with newly qualified teachers there's not enough information, there's not enough experience to working with special needs, and there's not enough understanding about the different kinds of needs and how things can be adapted. You know, sometimes it's not a whole new lesson just for this child.

University Tutor to Student S1:

From incredibly experienced and skilled to very little. It often depends on their previous experience, many come from special needs support backgrounds, teaching assistants, not that that necessarily gives them an insight into the needs of children. It often gives them insight into the needs of the school and procedures, but often I think the needs of pupils is, the characteristics of pupils, is a bit opaque, to be honest, many of them come in from that previous experience thinking of it as a procedure, as a set of procedures to be followed. Some of them go into schools where it's a significant feature of their training. I do have students saying that there are pupils with no special needs in their school, which is difficult to believe. So just massively varied.

They imagine special needs to be that they, they've all heard of, interestingly they've all heard the term but never really have thought about what it is it actually means. Often they think it's a kind of global designation that's attributable to the individual as opposed to a contextual one

Mentor to Student S2:

I mean there was a lot of work about how to kind of make children feel like they were involved, which I think is really important, and that's something S2 does do, but I think actual techniques and strategies, I think it's problematic.

Overall, the comments broadly suggest that mentors and tutors felt that although there was some limitation to the level of knowledge and skills that students could gain at this developmental stage, nevertheless there was an expectation that

teachers arriving in schools as NQTs could potentially have more in-depth knowledge, particularly in relation to practical strategies.

Mentor Views on in service workforce development needs on SEND

School mentors were asked for their views on how well in-service teachers (as opposed to students coming directly from ITT), both in their own school and more widely, were prepared for working with children with SEND. Six mentors gave responses, coded to eight source references. 3 references indicated that they felt that training and preparation were effective in their school but not in others, as in:

Mentor/SENCo to Student P3:

When we get an NQT it will be looking at what are their areas of development, if they haven't worked with children with special educational needs then that would be our job then to then put in that training. But quite often thinking about a child who comes in, I'm just thinking of a child who's starting in our nursery, I'm the SENCo and I've never worked with a child with that need but we've already put in training before they've started to make sure that's happening. But I don't think that's common in all schools.

4 references overall indicated that training and preparation were effective in their school and 2 references indicated that training and preparation were not effective enough, as in:

Mentor to Student P1:

The problem is I think that you can send a teacher out for a day, and they can use, they can use what they learn from that day, but kind of getting that consistency across the school, and having the time to do that, I think that that's where it's difficult, because as a school you've got five inset days throughout the year, which, you've got a hundred and...you know, you want to kind of cover curriculum and all the rest of it, and then you've got twilights every week, but those really are only about an hour, perhaps an hour and a half, and those are only for teaching staff.

Three tutors made substantive comments on how they thought workforce development for working with children with SEND could be improved:

Mentor Student P3:

Thinking of the DISS report, when it's looking at TAs, I found that hugely, you know, strategies that should be used instead of Velcroing the TA, and have brought that back into school, so running training sessions for TAs when doing monitoring and observations giving other strategies and things, definitely, I think it's really useful.

Mentor (and Deputy Headteacher) Student P1:

I think I've realised that it's, what's quite important is to try and get training for whole school staff on areas of special needs, but kind of target sort of an area at a time, so have a whole school training on autism, but even then, you know, even if that's a morning, or an afternoon, I'd say that's relatively limited... if I was making government policy I would say that, you know, I would try and look at teachers having regular professional development every week, a bit like NQTs do in their first year, a bit like ongoing. And I think that that might be the way that you would then, if your year five and six teacher had an afternoon every week where they went and did training, and then you would cover it, I think that would be a more effective way,

Mentor (and Deputy Headteacher) to Student S2:

Well, what I would think about is this, you know, people, the research into things like autism and Asperger's and research into dyslexia and dyspraxia, what people are finding out about it, because one of the problems for us is that most of us that's not what we...well, how can I phrase it? Most teachers who are working fulltime don't spend a lot of time reading research papers unless it's very pertinent to what they do. So what we try and do in the way we do our training is to have facilitated sessions, where if we can find a piece of writing that is provocative, or challenging, or thought provoking, to encourage a discussion around something or around assumptions that we might have, or challenges, then what does that make us think, how does that, does that reflect on how we are actually working when we have, who do we have in our class who has that? So that's what I'm talking about. So it's much easier when they're say at the Institute and to know that they are having a day on

SEN, or a lecture, they will get that kind of thing, whereas for us it's more difficult. So I always sort of, you know, feel it's an area where we could grow and I've talked to people at the, you know, at the Institute at Roehampton about access to the library, and access to documentation and research, because it's hard to get in and get stuff. Who you look for, and try and buy books. So that would be better to build those links up I think. Does that make sense?....But I do know that teachers, because we've been trying sort of, we do quite a lot of that around our joint practice groups that we run in the school, and we've actually now rolled out across the alliance, so that is a way that, you know, quite a lot of schools now, in our Teaching School Alliance, it's a way that teachers are working, so that's been a big shift this year, but...Well what we did was we agreed on, we've got small steering groups, and we agreed on a group of topics and then we set up sort of what we call joint practice development groups, and then we trained the people who were to facilitate the groups, so we then trained the facilitators to run the groups, and the way the groups started off was that they all started off with think pieces taken from research around whatever the topic was which then engendered discussion over a few sessions, which then turned into reflection on their practice, which then turned into things that they wanted to try out and then sort of auction researched in a mini way...

[It should be noted that the steering groups noted here focused on a range of topics and not on SEND]

There is a theme running across all of these source references that although schools are running input for in service teachers, there is nevertheless a level of dissatisfaction with the impact of this professional development. Both mentors to students S2 and P1 suggest that a more intensive level of input is needed, and in the case of the mentor to student S2 that greater emphasis on making use of research evidence is required.

Evaluation of follow up Questionnaires with Intervention Group January 2015

As indicated, students in the intervention group completed a further follow up questionnaire on their development in attitude, knowledge and understanding about working with children with SEND, in January 2015. This questionnaire was designed

to capture the emergent learning from their experience of the Year 2 curriculum as NQTs. Responses to the questionnaire are set out below. Note that the Likert item options were 1: Strongly Agree, 2: Agree, 3: Tend to Agree 4: Tend to Disagree, 5: Disagree, 6: Strongly Disagree.

Q4.1: Degree of agreement with the statement: Special school provision works well for some children with special educational needs and disabilities

Baseline November 2013:

Mean: 2.0

Standard Deviation: 0.82

End of Year July 2014:

Mean: 1.39

Standard Deviation: 0.79

January 2015

	Frequency	Percentage
Strongly agree	14	56
Agree	9	36
Tend to agree	1	4
Tend to disagree	1	4
Total	25	100

Mean: 1.56

Standard Deviation: 0.75

Q4.2: Degree of agreement with the statement: Teachers in mainstream classrooms can make adaptations that will meet the needs of most children with special educational needs and disabilities

Baseline November 2013:

Mean: 2.28

Standard Deviation: 0.60

End of Year 1 July 2014:

Mean: 1.93

Standard Deviation: 0.78

January 2015

	Frequency	Percentage
Strongly agree	2	8
Agree	15	56
Tend to agree	8	32
Total	25	100

Mean: 2.18

Standard Deviation: 1.39

Respondents largely agreed that special school provision was successful for some children with SEND and all agreed that most children with SEND could have their needs met in mainstream classrooms with appropriate adaptations. In both cases, descriptive statistics suggest that the level of agreement increased over the test period.

They also all accepted (Q4.5 below) that positive attitudes and understanding can make for inclusion in mainstream classrooms.

Q4.3: Degree of agreement with the statement: I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom in a mainstream school

Baseline November 2013:

Mean: 2.71

Standard Deviation: 1.41

End of Year 1 July 2014:

Mean: 2.65

Standard Deviation: 1.28

January 2015

	Frequency	Percentage
Strongly agree	10	40
Agree	7	28
Tend to agree	7	28
Tend to disagree	1	4
Total	25	100

Mean: 1.96

Standard Deviation: 0.92

Q4.4: Degree of agreement with the statement: I am concerned that I will be more stressed if I have students with significant special educational needs and disabilities in my class in a mainstream school

Baseline November 2013:

Mean: 3.59

Standard Deviation: 1.36

End of Year 1 July 2014:

Mean: 3.79

Standard Deviation: 1.25

January 2015

	Frequency	Percentage
Strongly agree	2	8
Agree	9	36
Tend to agree	4	16
Tend to disagree	7	28
Disagree	3	12
Total	25	100

Mean: 3.0

Standard Deviation: 1.2

Q4.5: Degree of agreement with the statement: If teachers have positive attitudes and understanding then children with special needs can be effectively included in mainstream classrooms

Baseline November 13:

Mean: 1.95

Standard Deviation: 1.35

End of Year 1 July 2014:

Mean: 1.83

Standard Deviation: 1.35

January 2015

	Frequency	Percentage
Strongly agree	8	32
Agree	8	32
Tend to agree	9	36
Total	25	100

Mean: 2.04

Standard Deviation: 0.82

Q4.6: Degree of agreement with the statement: I am concerned that I will have inadequate support/resources to enable me to teach inclusively

Baseline November 13:

Mean: 3.10

Standard Deviation: 1.46

End of Year 1 July 2014:

Mean: 3.37

Standard Deviation: 1.05

January 2015

	Frequency	Percentage
Strongly agree	3	12
Agree	10	40
Tend to agree	7	28
Tend to disagree	5	20
Total	25	100

Mean: 2.56

Standard Deviation: 0.94

Questions 4.4 and 4.6 found some participants expressing anxiety about the possibility of stress when working with students with significant SEN (60% confident) and support and resourcing (80% concerned).

Q4.7: Degree of agreement with the statement: I understand the ways in which special schools work to support children with special educational needs and disabilities

Baseline November 13:

Mean: 3.36

Standard Deviation: 1.50

End of Year 1 July 14:

Mean: 1.66

Standard Deviation: 0.68

January 2015

	Frequency	Percentage
Strongly agree	2	8
Agree	18	72
Tend to agree	5	20
Total	25	100

Mean: 2.12

Standard Deviation: 0.52

Q6.1: Degree of agreement with the statement: I have the knowledge and skills to teach students with complex learning difficulties

Baseline November 13:

Mean: 4.79

Standard Deviation: 1.09

End of Year 1 July 14:

Mean: 3.61

Standard Deviation: 1.32

January 2015

	Frequency	Percentage
Strongly agree	1	4
Agree	3	12
Tend to agree	3	12
Tend to disagree	10	40
Disagree	6	24
Strongly disagree	2	8
	25	100

Mean: 3.60

Standard Deviation: 1.16

Q6.2: Degree of agreement with the statement: I have the knowledge and skills to teach students with moderate learning difficulties

Baseline November 13:

Mean: 3.90

Standard Deviation: 1.06

End of Year 1 July 14:

Mean: 2.39

Standard Deviation: 0.82

January 2015

	Frequency	Percentage
Strongly agree	2	8
Agree	5	20
Tend to agree	13	52
Tend to disagree	5	20
Total	25	100

Mean: 2.84

Standard Deviation: 0.83

Q6.3: Degree of agreement with the statement: I have the knowledge and skills to teach students with mild learning difficulties

Baseline November 13:

Mean: 2.82

Standard Deviation: 0.84

End of Year 1 July 14:

Mean: 1.63

Standard Deviation: 0.62

January 2015

	Frequency	Percentage
Strongly agree	7	28
Agree	13	52
Tend to agree	5	20
Total	25	100

Mean: 1.92

Standard Deviation: 0.67

Q6.4: Degree of agreement with the statement: I have the knowledge and skills to teach students with difficulties with reading and spelling

Baseline November 13:

Mean: 2.90

Standard Deviation: 0.98

End of Year 1 July 14:

Mean: 1.90

Standard Deviation: 0.91

January 2015

	Frequency	Percentage
Strongly agree	5	20
Agree	11	44
Tend to agree	6	24
Tend to disagree	3	12
Total	25	100

Mean: 2.28

Standard Deviation: 0.92

Q6.5: Degree of agreement with the statement: I have the knowledge and skills to teach students with autism

Baseline November 13:

Mean: 3.85

Standard Deviation: 1.23

End of Year 1 July 14:

Mean: 2.20

Standard Deviation: 0.70

January 2015

	Frequency	Percentage
Strongly agree	4	16
Agree	9	36
Tend to agree	9	36
Tend to disagree	2	8
Disagree	1	4
	25	100

Mean: 2.48

Standard Deviation: 0.98

Q6.6: Degree of agreement with the statement: I understand how to work effectively with other adults in the classroom to achieve effective inclusion of children with special educational needs and disabilities

Baseline November 13:

Mean: 3.21

Standard Deviation: 0.94

End of Year 1 July 14:

Mean: 1.85

Standard Deviation: 0.72

January 2015

	Frequency	Percentage
Strongly agree	3	12
Agree	15	60
Tend to agree	4	16
Tend to disagree	3	12
Total	25	100

Mean: 2.28

Standard Deviation: 0.82

Question 6 explored the participants' confidence in working with SEND. While a majority of NQT participants did not feel they understood how to teach students with complex learning difficulties (though over a quarter did), the picture was different for responses on learning difficulties categorised as moderate (80% confident) and mild (100% confident). Confidence was also high in relation difficulties relating to reading and spelling, autism and working with other adults (72% of respondents confident).

Overall, the January 15 data clearly indicates an interesting trend across most of the questions on attitude and understanding, some of the "gains" over the ITT year are dissipated in the initial experience in the NQT year. Although we only, as discussed, present descriptive statistics, it is highly reasonable to draw this conclusion from the data, although missing data should give some cause for caution in this interpretation. For example, we can consider the three questions on understanding which on comparison between baseline and follow up at July 2014 were statistically different to the control group:

I have the knowledge and skills to teach students with complex learning difficulties.

I have the knowledge and skills to teach students with moderate learning difficulties.

I understand how to work effectively with other adults in the classroom to achieve effective inclusion of children with special educational needs and disabilities.

For the latter two of these questions, although students were still more confident in their understanding at January 2015 than they had been at baseline in 2013, they were less confident than they had been at July 2014. This is perhaps not wholly surprising when we consider other studies such as Avramadis and Kalyva (2007) and Wilson and Demetriou (2007) which have consistently identified a “trailing off” in the development of positive attitudes and disposition towards inclusion when student teachers enter their NQT year and are faced both with the constraints of existing processes and structures within schools, their relative powerlessness as an NQT entering a new school, and the significant pressures placed on NQTs in their first year of teaching. Other anecdotal evidence from discussion board postings, and discussions in sessions, also indicated despite structures put in place as part of the project, including potential payments to schools, to encourage participation in the programme, a number of students had not had a strong enough level of support from their school in facilitating engagement with the programme. Taken together, and also given the very positive free text responses in terms of the impact of the SEND Experience on the NQT year (See Q7-10 below), these factors could provide a plausible explanation as to why there is some tail off in gains in both attitude and understanding in the NQT year and points towards the importance of properly structured ongoing CPD on inclusion and SEND, which is properly embedded within a curriculum for development within the first five years of teaching.

The January 2015 follow-up questionnaire for the intervention group included similar specific questions relating to their experience in the pilot programme to those asked in the first follow-up questionnaire.

Q7: In what ways, if any, has Year 1 of the SEND Additional Experience influenced my practice with children with SEN in my NQT year so far?

35 responses.

Becoming a more reflective practitioner: 13

Improving assessment and planning of pedagogy for pupils with SEND: 14

Learning to collaborate with other professionals: 2

Picked up many small ideas: 1

Learning patience: 1

Better understanding of the context around inclusion: 1

Better understanding of severe SEND: 1

Broadened general knowledge of SEND: 1

Changing my pedagogy: 1

Q8: Degree of agreement with the statement: (In reference to the week at Swiss Cottage in Year 1), the experience of working in a special school influenced my practice with children with SEN in my NQT year so far?

	Frequency	Percentage
Strongly agree	8	32
Agree	12	48
Tend to agree	4	16
Tend to disagree	1	4
Total	25	100

Mean: 1.88

Standard Deviation: 0.71

Respondents were asked to give, if appropriate, an example in the ways in which the special school experience influenced them.

13 responses

Observing effective communication between adults: 5

Learning about 'person-centred' planning: 4

Clarity on progression: 1

Made working with SEND less daunting: 1

Observing a highly positive working environment: 1

Learning how to sequence activities: 1

Q9: The DPES SEND module this year has influenced my practice with children with SEN in my NQT year so far

	Frequency	Percentage
Strongly agree	2	8
Agree	18	72
Tend to agree	5	20
Total	25	100

The module overall was seen as highly influential on respondents' NQT SEND practice. Question 10 asked respondents to give an example of the module's influence on their practice.

Responses 15

Improved confidence (one respondent noted that the module had given the confidence to have herself filmed while teaching): 7

Valuable online discussion: 4

The quality of the readings studied: 3

The sessions on autism and dyslexia: 1

Again, the overall impression from Questions 7-10 is that the SEND Experience had had a positive impact on their thinking in relation to working with children with SEND, which reinforces the hypothesis that it could be structural and process factors related to the NQT year which account for the "tail off" in Likert scale responses related to attitude and understanding.

Recommendations: A Roadmap for SEND in ITT and Beyond

Key Overall Points:

The SEND specialist route

The project objectives

The key objective is to develop a scalable pilot of an in-depth ITT route, which will produce teachers who are knowledgeable about the cognitive, developmental, health and care needs of children with SEND, and understand best practice interventions available, as well as having a good understanding of inclusive pedagogy.

The evidence above suggests that the programme has established a model of a scalable in-depth ITT route for SEND. Responses to the series of evaluation questionnaires, from pre-intervention through to the January 2015 exploration of the group's feelings tell the story of newly qualified teachers who:

- were originally less certain than the control group about their capacity to teach pupils with SEND
- felt they had gained appropriate knowledge about the needs of children with SEND, including that about such areas as autism and dyslexia
- understood and felt able to apply many best practice interventions as a result of their programme, such as effective collaboration with other professionals
- moved well beyond the literal demands of this objective in bringing the latest thinking about inclusive pedagogy to bear on their planning, assessment and teaching for all pupils, including those with SEND, through to their work as an NQT
- have changed attitudes
- by the end of their PGCE year, their ratings of their confidence in their capacity to teach pupils with SEND were higher than those of the control group (who originally rated themselves more highly on this item)
- have committed themselves to critical thinking and reflection about the needs of individuals rather than an approach too overly based on 'labels'

- at the same time, understood the potential role of knowledge about child development, common patterns of development and impairment associated with particular diagnostic categories, and understanding of particular strategies associated with such categories, in developing effective inclusion of children with SEND in the classroom; at the same time as understanding that any such knowledge was highly context sensitive and needed to be “re-interpreted” to meet the needs of individual children:

So...I think so, I think you kind of think if someone's done all this research and people have poured this money into this research then I think it's probably a sure fire, you know, this is a really, you know, sturdy way of dealing with a child that has autism, and then you go in and have a child with autism and it's just not that way. So I think it's just you've still, you know, theory, obviously theory's important, you need to understand where all these ideas are coming from and why people need to research in order to get into them, and come up with these ideas, but then you also need to realise that it might not necessarily work. And I think that's quite a big one, just realising that it might not be relevant, but it's still worth knowing. Because if you've tried it and you realise that it's not relevant then OK, you know that that's not worth doing but you can't try something if you've never looked at it in the first place

The evidence further suggests that the combination of Institute-led and special school experience has achieved these changes. As in the TDA 2005-2010 programme (see above) special school experience was highly valued, as was the theoretical and collaborative learning within the sessions and online learning provided through the Institute. By comparison with that of some providers on the TDA programme, the special school experience was short in time: one preliminary visit, then a working week of classroom activity. This tightly organised schedule allowed students to observe in action many of the conceptual and practical ideas the IoE programme was presenting, such as focused thinking about individual needs, high quality teamwork between adults and a commitment to trying new approaches if others were failing. It reflected the expertise and experience of the Swiss Cottage school team in making the best of the time available. Nevertheless, the evidence suggests that many students would find a longer period of time in a special school beneficial.

At the same time, although it needs to be interpreted cautiously, the January 2015 questionnaire data did indicate some trailing off in terms of gains in attitude and understanding, which it seems highly possible can be attributed to common difficulties of maintaining developments during the ITT year when confronted by the challenges of the NQT year.

Views from the March 2015 dissemination seminar

In the dissemination seminar on 15th March, organised as part of the project, a significant number of delegates, drawn from a range of stakeholders including school leaders and teacher educators, called for such experiences to be available to all in ITT. These calls sit in the context of the Carter Review's recommendation 10 that 'wherever possible, all ITT partnerships should build in structured and assessed partnerships for trainees in special schools or mainstream schools with specialist resourced provision' (DfE, 2015).

‘Wherever possible’ is the important phrase. For example, the UCL Institute of Education trains 2,000 students in its PGCE/SD programme every year. Finding such PGCE/SD special school placements would be virtually impossible in terms of spaces available and resources of money and time. Given the already overcrowded curriculum on one year postgraduate teacher training routes, finding the time for additional theoretical input for all students would also be challenging. In a theoretically lively field with new evidence emerging all the time, the quality of what is available to students would need to be tightly overseen by leaders of the partnerships. Nevertheless, as was captured in the March 15 and June 14 seminars, other teacher training providers across the UK are making attempts to square this circle. For example, one English University training partnership provides three two weeks placements for all PGCE students, each focusing on one of English, mathematics and SEND.

Nevertheless, the experience with this pilot, and with most ITT providers, as again was highlighted in discussions in both seminars, suggests the current ITT framework would find it hard to offer quality special school/provision experience and/or additional theoretical input for all PGCE students. A model similar to that piloted in this programme is likely to be appropriate for most partnerships.

Leadership of SEND

A key objective of the pilot was the development of programme graduates who can work closely with other professionals and families, and potentially have a rapid cascade effect on inclusive practice across clusters of schools.

It has always been envisaged that graduates of the programme will go on to have an impact on the practice of other teachers in their own school or across clusters of schools, building on the idea of the ‘SEND Champion’ outlined in the Lamb Inquiry report. The programme has built-in elements, such as a session at Swiss Cottage School, on becoming leaders in SEND.

Since all participants are only now midway through their NQT year, they are not fully-formed SEND champions or advisers. However, the signs of positive development are encouraging both from the confidence the NQTs are showing in using approaches which advance the practice of the schools in which they are working, and also in terms of the way they see themselves in future, often as SENCOs but also as resources valued by their peers;

They do ask me about it [the course], are interested. And certainly one of the other girls as well has asked me to help because she's going to work in an autistic school next year, and she was like, where shall I go for resources? Because she just didn't know. I was like oh I know, you know, I'll have a look on the Moodle site and find out, and forward you some things that might help you.'

At the same time, the analysis of the January 2015 questionnaires, as well as emerging evidence about potential gaps in support from some schools where NQTs were based, suggests that further consideration needs to be given to this element of continuing professional development in terms of developing not just attitude, knowledge but also potential leadership in SEND. In particular, recognition, in the light of recent changes to Local Authority provision for NQT support with the resultant development of a more fluid arrangement for NQT professional development (which was also evidenced by the tutor interviews in this project), may present barriers to the effective engagement of students interested in developing leadership in this area. Thus planning for school support and engagement will be a crucial area for future developments.

The adequacy of ITT to prepare students for working with children with SEND

The Carter Review (DfE 2015, para XXVII) found that many organisations 'have raised concerns' about the adequacy of ITT in preparing new teachers to address SEND. Things are not optimum at present, but the Review's concerns require a careful response if the lessons of this programme and much other work based on an 'inclusive pedagogy' approach are not to be neglected.

Any decision about changes to the current system for SEND in ITT should take into account the wider theoretical and structural issues around provision for SEND, including ensuring that adequate time is available within the crowded ITT schedules (see ‘A two year model’ below).

Towards a new reality for teacher education for SEND

We believe that the review of the experience with this pilot, suggests two feasible options in England for addressing the adequacy of training for SEND in the context of both ITT and continuing professional development. These recommendations also have implications for countries within the UK.

An enrichment and dissemination model

1. Careful consideration should be given to the dangers of introducing a starkly bifurcated training model for SEND vs mainstream for both primary and secondary training. As indicated in the initial literature review, the dangers of a bifurcated workforce such as that more commonly found in the USA, where teachers train as special teachers who take on the primary role of working with children with SEND in both special and mainstream settings, need to be borne in mind. In particular, the associated risk that other teachers see SEND and inclusion as something which is not their job, cannot be understated, and we have been keenly aware of these dangers throughout this project. The model of an inclusive framework is as valid at the HEI phase as in schools and should be the fundamental of any proposals. In this context, the pilot programme developed is not a wholly separate SEND element of the IoE’s offer, but an enrichment package that offers a modified *route* within the standard PGCE/SD programme and that has an associated emphasis on leadership and dissemination, encouraging participants to share their understanding with colleagues both during their ITT and NQT years and beyond.

2. A well thought out effective plan for teacher workforce development for SEND embedding an SEND route could have a significant impact on workforce development.
3. Consideration should be given to specific funding and allocation for SEND enrichment routes which provide additional input on SEND, including structured special school experience similar to that on the SEND in ITT project (which comes at a cost for schools), at both primary and secondary level, for limited groups of students, with the view that these students would graduate to a role in disseminating good practice in SEND.
4. There should however be consideration given to relaxing somewhat the ITE regulations, particularly with regards to age phase requirement, as well as to giving clearer direction on what structure joint awards at secondary level, such as 'English and SEND', would be expected to have in order to meet the requirements for students to meet the standards.
5. A key element identified from the data was that students needed to be at the right developmental stage in order to be able to properly assimilate knowledge about inclusive pedagogy and SEND. The strong indication of this in the data was also reinforced by a number of contributions in the seminars also suggesting that a graded approach to assimilating knowledge could be beneficial. Thus careful consideration should be given, as part of such enrichment and dissemination models, to a structured curriculum which could potentially traverse not just the NQT year but several years post initial qualification. Thus students might, after initial input on inclusion and SEND during their ITT year, then spend some time in school first, giving them a chance to build up a greater base of experience with children and then return either in one block or at intervals for further continuing professional development on SEND linked to their initial ITT year enrichment. Clearly for such a model to embed, clearer systems for close liaison with schools, local authorities, teaching schools and other networks, in conjunction with ITT providers, would need to be in place to allow for such staged continuing professional development systems, linked to an initial enrichment programme in ITT, would need to be developed.

A longer programme or extended for all students

1. Many of the issues relating to one year PGCE and the proper embedding of the enrichment model in all ITT could be resolved if the length of ITT programmes was increased.
2. It is clearly the case that fitting in the additional course content encapsulated in the pilot programme in to a 10 month PGCE course is typically unfeasible.
3. Such an increase would have potential benefits in terms of many other aspects of the crowded ITT curriculum, and would reflect the developments with lengthening ITT in other territories. It is the case, as was voiced very strongly at the March 2015 seminar, as well as in much of the data from students and tutors, that it would be eminently preferable for all beginning teachers to have the input entailed in the pilot, which the data indicates had a significant impact on attitude, knowledge and understanding about effective inclusion of children with SEND.
4. We do not make specific recommendations here on what the ideal programme length would be to facilitate this, and we recognise the significant cost implications for government. Nevertheless, the results of this pilot evaluation seem inescapably to point towards the need for beginning teachers to have more input on SEND and effective inclusion.

Other Specific Issues and Recommendations

Do Special Schools have different requirements for ITT?

- In the seminars, a number of stakeholders from special schools flagged that in their view it may be the case that special schools have specific training needs that are not being met, and that a specific route may be of benefit to such schools. It is not clear, however, that this should be a route which is SEND only, and it is likely that a general route with an SEND specialism, such as that of the programme model, for both primary and secondary, will better serve the workforce and children in providing expertise that can be established across the profession and not end up with a situation where only a few specialists are seen as holding the 'knowledge', with all the concomitant risks for effective inclusion across the system that this entails.
- It is also the case that our consultation with special school leaders as part of the SEND in ITT project also indicates that some are concerned about a bifurcated training system which may actually reinforce the division between the special and mainstream teacher workforce (we know anecdotally that when teachers enter special education, it is fairly rare for them to go back to mainstream, especially for secondary). These consultations also indicate that there could be a benefit for teachers spending some time in mainstream settings before going to teach in special schools. This might suggest a training model which included a period of mainstream teaching before additional qualification.
- None of the interviews with the students has shown interest in such a trammelled route. The interviewees suggest overwhelmingly that what they have been through on the course will prepare them for all sorts of work with SEND, though of course they may require some specific learning on a particular area if they move into specialist provision.

The curriculum: Theory, practical strategies and experience

Across the data, there was a fairly strong emergent theme that a number of students would find both more practical experience working with children with SEND and more suggestions for specific strategies useful, at the same time as finding general theory on both inclusive pedagogy and on, for example, developmental patterns in autism, still useful as background knowledge.

Thus a curriculum for SEND, whichever overall model is adopted should include a balance of:

- theory on specific diagnostic conditions
- theory on inclusive pedagogy
- practical experience in working with children with SEND (and special school experience can be identified as particularly valuable route to this)
- input on specific strategies, which, as the developing experience with the Year 2 curriculum indicates, may well be effectively structured around both exemplar case studies and cases drawn from direct classroom experience.

There is clearly a synergy between this finding and the recommendation on ensuring that content is delivered at the right time for students. Thus extended patterns of continuing professional development, which allow students the time to draw on experience in the classroom, before receiving additional input on SEND, could be particularly effective in achieving this. *What is clear is that the current 10 month ITT route itself is not fit for purpose in facilitating such development in understanding.*

The curriculum: Tensions engendered by special school experience

As indicated in the qualitative results, in a significant number of cases students identified tensions between what they experienced on special school placement and applying this experience on mainstream placement, for example around effective use of teaching assistants. In many cases this tension was productive in that it prompted students to reflect more closely on the relevant issues. Nevertheless, for a small

minority of students such tensions had a negative aspect, fostering doubts about the relevance of special school experience for their practice.

We recommend, therefore, that a curriculum based on this project would include greater attention to preparing students for considering how structural differences between special and mainstream schools may be relevant and greater opportunities for more structured reflection on the relevance of these differences.

The curriculum: Structural issues in the transition between ITT and the NQT year and beyond

The January 2015 follow up questionnaire data, as well as feedback from students on their experience during their NQT year, strongly suggests that in some cases: a) support from schools for engagement with continuing professional development around SEND could have been strengthened, and b) some students found significant dissonance due to the contrast between the “ideal” presented in their enrichment programme in their ITT year and the reality of life at the chalk-face in their NQT year. We recommend, therefore, that in further developments with preparation for working with children with SEND which crossover in to the NQT year and beyond, greater consideration needs to be given to ensuring closer integration of programme design and delivery with schools. This could and should involve Teaching Schools, other networks and Local Authorities.

In addition, we also recommend that the curriculum for enrichment programmes within the ITT year also have greater emphasis on preparing trainees to integrate their enrichment experiences in to their practice in their NQT year. This should take the form of reflective exercises designed to promote critical analysis of the tensions between ideas from theory related to effective SEND practice and the realities of structural constraints within schools.

The curriculum: Subject specific pedagogy

The *Carter Review* identifies subject specific pedagogy as a key area for development in ITT, and this is particularly relevant in relation to SEND. As discussed above, current structural constraints on ITT in relation to Secondary

subject specific training in particular, make the effective development of specialist routes for Secondary problematic. Although there was not a strong focus on the evaluation of subject specific training for Secondary in relation to SEND within the project, there were several curriculum initiatives in this regard. For example, a specific session on SEND for Art and Design was planned and implemented, and this was very well received (as evidenced by evaluation data) by students studying Art and Design at Secondary level, as well as by Primary level students. We would also argue that such subject specific training is highly relevant for Primary phase students.

Moving towards a solution for effective enrichment in SEND will clearly involve effective consideration of how subject specific pedagogy related to SEND can be incorporated in to the curriculum, which will be more challenging for Secondary phase students. Any developments should involve effective use, with necessary modifications, of the TDA subject specific curriculum materials.

Can we Deliver High Quality, Effective ITT which Supports Pupils with SEND within the Current System?

The *Carter Review* has found that the focus and structure of the current ITT system does not meet the needs of schools on SEND. The findings in this project support those conclusions. Changes as indicated above should be considered to introduce greater flexibility. A simple solution of a starkly bifurcated SEND only route is not, in itself, likely to lead to optimum provision for pupils. Two main options for development can be considered:

- development of a **longer** universal ITT curriculum to incorporate understanding of inclusive pedagogy and, in particular, building the findings of this project as well as other studies including those on the TDA and similarly well evaluated programmes into such core content to extend the capacity to address SEND issues
- a **SEND enrichment and dissemination programme** such as that modelled in this project should be in place in every partnership so that a proportion of students

become teachers who will be resources for schools, families and clusters. A target figure of 5% of ITT students is proposed.

It could also be the case that both approaches could effectively be combined in to a *twin track* approach that would lead to potentially even greater developments in the ability of teachers to work effectively with children with SEND.

References

Avramadis, E., and Kalyva, E. (2007) The influence of teaching experience and professional development on Greek teachers' attitudes towards inclusion. *European Journal of Special Needs Education*, 22:4, 367-389.

Barton, L. (1988) *The Politics of Special Educational Needs*. London: Routledge.

Brown, K. S., Welsh, L. A., Hill, K. H., and Cipko, J. P. (2008) The efficacy of embedding special education instruction in teacher preparation programs in the United States. *Teaching and Teacher Education*, 24:8, 2087-2094.

Brownell, M.T., Ross, D.D., Colón, E.P. and McCallum, C.L. (2005) Critical features of special education teacher preparation: a comparison with general teacher education. *The Journal of Special Education*, 38:4, 242–252.

Burman, E. (2008) *Deconstructing Developmental Psychology*. London: Psychology Press.

DCSF (2008) *The Bercow Report: A review of services for children and young people (0–19) with speech, language and communication needs*.

DCSF (2009) *Lamb Inquiry: Special educational needs and parental confidence*.

DCSF (2010) *Salt Review: Independent review of teacher supply for pupils with severe, profound and multiple learning difficulties (SLD and PMLD)*.

DfE (2010) Lindsay, G., Cullen, M.A., Cullen, S., Dockrell, J., Goodlad, S. and Arweck, A. *Evaluation of the impact of the DFE investment in initiatives designed to improve teacher workforce skills in relation to SEN and disabilities - 1st interim report* RR DFE-RR058.

DfE (2011) Lindsay, G., Cullen M.A., Cullen, S., Dockrell, J., Strand, S., Arweck, E.,

Hegarty, S. and Goodlad, S. *Evaluation of impact of DfE investment in initiatives designed to improve teacher workforce skills in relation to SEN and disabilities* DfE RB115.

DfE (2015) Carter, A. *Carter Review of initial teacher training*. Available at <https://www.gov.uk/government/publications/carter-review-of-initial-teacher-training>

European Agency for Development in Special Needs Education (2012) *Teacher education for inclusion/sources of evidence*.

Florian, L. and Black-Hawkins, K. (2011) Exploring inclusive pedagogy. *British Educational Research Journal*, 37:5, 813-828.

Florian, L. and Linklater, H. (2010) Preparing teachers for inclusive education: Increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education*, 39:1, 17-32.

Florian, L. (2008) *Special or inclusive education: Future trends*. *British Journal of Special Education*, 35:4, 202-208.

Florian, L., Young, K. and Rouse, M. (2010) Preparing teachers for inclusive and diverse educational environments: Studying curricular reform in an initial teacher education course. *International Journal of Inclusive Education*, 14:7, 709-722.

Florian, L. and Rouse, M. (2009) The inclusive practice project in Scotland: Teacher education for inclusive education. *Teaching and Teacher Education*, 25, 594–601.

Forlin, C. and Chambers, D. (2011) Teacher preparation for inclusive education: using inclusive pedagogy to enhance teaching and learning for all. *Cambridge Journal of Education*, 40:4, 369-386.

Frey, T. J., Andres, D. K., McKeeman, L. A., and Lane, J. J. (2012) Collaboration by design: Integrating core pedagogical content and special education methods courses in a preservice secondary education program. *The Teacher Educator*, 47:1, 45-66.

Garner, P. (1996) Students' views on special educational needs courses in initial teacher education. *British Journal of Special Education*, 23:4, 176–179.

Golder, G., Jones, N. and Quinn, E. (2009) Strengthening the special educational needs element of initial teacher training and education. *British Journal of Special Education*, 36:4, 183-190.

Hausstätter, R. S., and Takala, M. (2008) The core of special teacher education: A comparison of Finland and Norway. *European Journal of Special Needs Education*, 23:2, 121-134.

Hegarty, S. (1998) Challenges to inclusive education: A European perspective, in S. J. Vitello and D. E. Mithaug (eds.) *Inclusive schooling: National and international perspectives*. London: Routledge, pp. 151-165.

Hodkinson, A. (2009) Pre- service teacher training and special educational needs in England 1970–2008: Is government learning the lessons of the past or is it experiencing a groundhog day? *European Journal of Special Needs Education*, 24:3, 277-289.

House of Commons Education and Skills Select Committee (2006) *Special Educational Needs: Third Report of Session 2005-2006*. London: UK Parliament.

Jones, P. and West, E. (2009) Teacher education: Reflections upon teacher education in severe difficulties in the USA: Shared concerns about quantity and quality. *British Journal of Special Education*, 36:2, 69–75.

Jordan, A., Schwartz, E. and McGhie-Richmond (2009) Preparing teachers for inclusive classrooms. *Teaching and Teacher Education*, 25, 535-542.

Kavale, K. A. (2002) Mainstreaming to full inclusion: From orthogenesis to pathogenesis of an idea. *International Journal of Disability, Development and*

Education, 49:2, 201–214.

Lewis, A. and Norwich, B. (2005) *Special Teaching for Special Children? Pedagogies for Inclusion*. Open University Press.

LDC (2008) *Strengthening SEN and Disability in Teacher training*.

Mintz, J. (2007). Attitudes of primary initial teacher training students to special educational needs and inclusion. *Support for Learning*, 22, 3-8.

Mintz, J. (2014) *Professional Uncertainty, Knowledge and Relationship in the Classroom: A Psychosocial Perspective*. London: Routledge.

Mittler, P. (2008) Planning for the 2040s: Everybody's business. *British Journal of Special Education*, 35:1, 3-10.

Moran, A. (2009) Can a competence or standards model facilitate an inclusive approach to teacher education? *International Journal of Inclusive Education*, 13:1, 45-61.

Nash, T. and Norwich, B. (2010) The initial training of teachers to teach children with special educational needs: A national survey of English Post Graduate Certificate of Education programme. *Teaching and Teacher Education*, 26, 1471-1480.

National College for Teaching and Leadership (2014) *Newly Qualified Teachers: Annual Survey 2014* DfE RR393

National College for Teaching and Leadership (2013) *Newly Qualified Teachers: Annual Survey 2013 Sector Level Summary* DfE RR306

Norwich, B. and Nash, T. (2011) Preparing teachers to teach children with special educational needs and disabilities: The significance of a national PGCE development

and evaluation project for inclusive teacher education. *Journal of Research in Special Needs*, 11:1, 2-11.

OFSTED (2008) *How well new teachers are prepared to teach pupils with learning difficulties and disabilities*.

Osler, A. and Osler, C. (2002) Inclusion, exclusion and children's rights: |A case study of a student with Asperger syndrome. *Emotional and Behavioural Difficulties*, 7:1, 35–54.

Qureshi, S. (2014) Herding cats or getting heard: The SENCo–teacher dynamic and its impact on teachers' classroom practice. *Support for Learning*, 29: 217–229.

Richards, G. (2010) Managing current developments in SEN and inclusion: Developing confidence in new teachers. *Management in Education*, 24:3, 107-110.

Sangster, M. and Green, M. (2012) An evaluation of an alternative placement experience for students undertaking primary initial teacher training. *Journal of Education for Teaching: International research and pedagogy*, 38:4, 469-482.

Sharma, U., Forlin, C. and Loreman, T. (2008) *Impact of training on pre- service teachers' attitudes and concerns about inclusive education and sentiments about persons with disabilities*. *Disability & Society*, 23:7, 773-785.

TDA (2008) *Results of the newly qualified teacher survey 2008*.

TDA (2009) *Results of the newly qualified teacher survey 2009*.

TDA (2010) *Results of the newly qualified teacher survey 2010*.

TDA (2011) *Results of the newly qualified teacher survey 2011*.

TDA (2007) Qualified teacher status standards.

<http://www.tda.gov.uk/partners/ittstandards>

Teaching Agency (2012) *Annual survey of newly qualified teachers 2012*.

Tissot, C. (2013) The role of SENCOs as leaders. *British Journal of Special Education*, 40, 33-40.

Wedell, K. (2008) Confusion about inclusion: Patching up or system change? *British Journal of Special Education*, 35:3, 3, 127-135.

Wilson, E. and Demetriou, H. (2007) New teacher learning: Substantive knowledge and contextual factors. *Curriculum Journal*, 18:3, 213-229.



Find out more

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If you would like to see the curriculum materials from the
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