‘But how do I teach them?’: Autism & Initial Teacher Education (ITE)

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Background:

International studies suggest that the prevalence rate for autism in Europe, America and Asia now stands at between 1- 2% (CDC 2016), though rates vary depending on the methodology adopted. In the U.K., the rate is widely accepted to be 1% (Brugha et al. 2011) and, on the basis of this, U.K. census figures (UK census 2011) estimate that around 700,000 people (adults and children) out of a total population of 63 million are on the autism spectrum. Of these, 148,000 are under 18 and 138,000 are of school age (4-16). It is important to note, however, that these statistics are likely to be conservative as they do not include the many adults in the U.K. who are currently undiagnosed or have been misdiagnosed (Brugha et al. 2009) or the numbers of girls who are currently under-diagnosed (Gould and Ashton-Smith 2011).

As a result of world-wide educational inclusion policies (UNESCO 2009), many more children with autism are now educated in mainstream schools, particularly in Europe and America. In Scotland, where the study under consideration took place, 88% of children with autism are currently educated in mainstream schools and 4% are educated partly in mainstream and partly in special schools (Scottish Government 2016). This means that teachers will meet learners with autism in many classrooms, in most schools, across Scotland. These learners have a very different way of experiencing and perceiving the world compared to neurotypical learners. This is the result of difficulties in communication and social understanding, flexibility of thought and sensory processing which impact on all aspects of learning both within school and in life in general (Ravet 2015). These features combine in complex ways at varying levels of severity, and therefore manifest differently from one individual with autism to the next. In mainstream schools, learners with autism often have a diagnosis of High Functioning Autism or Asperger’s
Syndrome where the presentation of autism can be subtle and more difficult to identify (ibid). However, this subtlety does not necessarily mean that the condition is mild and that the learner can cope without support. Indeed, the very ‘invisibility’ of the condition amongst this group can be highly problematic, for it means that teachers may overlook their needs and fail to recognise the challenges they face.

Teachers therefore require a knowledge and understanding of autism in order to penetrate below the surface of the everyday behaviour and responses of children on the autism spectrum to the complex issues that lie underneath (ibid). This, in turn, enables them to make appropriate adaptations to teaching, the curriculum and the learning environment to facilitate effective inclusion and participation. Without such adaptations, pupils with autism can feel adrift in classrooms that seem unpredictable and chaotic, and can become confused by learning inputs that lack meaning to them. Indeed, much of the ‘behaviour that challenges’ amongst this group of learners can be attributed to the stress and anxiety they experience in poorly adapted environments (Ravet 2015). Teachers and student teachers have a duty to reduce such stress and to transform negative experiences of school. But are they adequately trained to undertake the adaptations required?

In the U.K, awareness of autism has been growing steadily since the 1990s when prevalence rates first began to increase rapidly. Since then, opportunities for training in autism amongst educationalists have expanded (MacKay and Dunlop 2004). However, whilst this has led to some improvement in the general picture (Humphrey and Syme 2011), knowledge and understanding of autism amongst teachers is still patchy. Autism training remains a high priority amongst policy makers across U.K. devolved governments (National Assembly for Wales 2009; DoH 2010; Scottish Government 2011; APPGA 2012).
The literature indicates that many teachers in mainstream schools continue to lack basic training in autism and are ill-equipped to support this group of learners (Policy Exchange 2010; Scottish Government 2011). Teachers themselves confirm this (Emam and Farrell 2009; Humphrey and Symes 2011), as do parents (Osborne and Reid 2011; Price 2012) and pupils (Reid and Batten 2007; Humphreys and Lewis 2008; Wainscot et al. 2008; Gilchrist 2012). There is growing awareness amongst education policy-makers and service managers of the autism training gap and the need for a more pro-active approach to autism training across the education sector (Ravet 2015).

However, surprisingly little attention has been paid to whether, how, and how effectively, student teachers are prepared to address the learning needs of children and young people with autism during Initial Teacher Education (ITE). ITE is where student teachers are introduced to the values and beliefs, knowledge and understandings, and skills and attitudes that will enable them to become effective educators for all. It is where they are inducted into the wider policy framework within which U.K. schools must operate. Inclusion is a key feature of U.K. policy, and specifies that all teachers have a duty to teach inclusively to ensure that all children and young people, including those with additional support needs, have their needs met and are enabled to actively participate in school life and in decisions that affect them (Barrett et al. 2015). Since this must include children and young people with autism one would assume that preparation for teaching this group is a key consideration during initial teacher training. Whether there is evidence of this is a key question.

In order to explore this, a search of the international literature was undertaken. It yielded only a handful of research papers that specifically explore autism education within the HE sector. Most of them are European or American studies that focus on graduate programmes for practicing teachers, and/or undergraduate programmes for student teachers (e.g. Lerman et al 2004; McCabe 2008; Loiacono and Allen 2008; Rosenzweig 2009; Loiacono and Valenti
A common narrative emerges from this literature emphasising poor preparation for inclusive practice amongst student teachers linked to poor awareness of the features of autism and a weak understanding of autism-specific, evidence-based teaching strategies. It is also reported that student teachers frequently fail to learn how to support pupils with autism from practicing teachers on school placement since classroom teachers, in turn, lack the requisite expertise. There is the added problem of limited access to in-school training and to autism specialists.

Busby et al. (2012) make the important point that where a lack of knowledge and understanding persists, it can undermine motivation and self-efficacy in teachers and student teachers, making them less likely to accept responsibility for this group of learners. This can have a significant negative impact on pupil outcomes (Siu & Ho 2010). Negative attitudes towards autism amongst student teachers can also influence expectations of learners (Park et al 2010). Further, Morrier et al. (2011) note that approaches to autism in schools tend to be eclectic and highly individualised. This makes autism education demanding and the inclusion of children with autism complex.

Research recommendations suggest that teachers need more information about autism and inclusion, more access to the literature and research on evidence-based practices in autism, more access to best practice models and to experience of teaching these children in different contexts (Busby et al 2012). More opportunities for partnership working with parents and other professionals around learners with autism is also required (ibid).

Arguably, these American and European findings resonate with the U.K. context and make intuitive sense. However, it is not clear whether they are directly transferrable, given that socio-cultural, policy, and institutional contexts differ, and that notions of inclusion, disability and special education diverge from country to country. It is also far from clear whether findings
relating to graduate students tell us anything about undergraduate students. There is therefore a clear need for more research into student teacher perceptions of autism in the U.K. There is also a need for deeper consideration of what we mean by ‘autism education’ in an ITE context, where it should be included in the ITE curriculum and how this might be justified.

In order to address this gap, a longitudinal, qualitative research study is currently underway to explore student and tutor perceptions of autism education on a four year teacher education programme within a U.K. ITE establishment. A further aim is to evaluate the implementation of a range of pedagogical inputs, developed collaboratively with students and tutors, to be embedded across the programme. It is hoped that this study will generate a clearer picture of what autism education for undergraduate student teachers currently looks like, how it is evaluated by students and tutors, and how it might be improved to meet the needs of student teachers, schools and learners with autism. It is hoped that this research will clarify the barriers to autism education at HE level and stimulate debate about provision for student teachers.

The research rationale, methodology, sampling details and ethics are set out in the next section. A discussion of the findings of phase one of the study then follows.

**Context and Rationale:**

This research is currently being conducted in an ITE department within a university setting. Inclusion theory, focusing on teaching and learning ‘for all’, is embedded in the four year ITE programme in this establishment. In practice, this means that students are exposed to a spiral curriculum (Bruner 1960) of inclusion lectures and workshops across the programme which enable student teachers to visit and re-visit the historical, theoretical and policy issues, plus the complex pedagogical and practice matters that inclusion raises. Students are taught that inclusive pedagogy should focus on ‘everybody’ rather than ‘most’ learners or ‘some’ learners with additional support needs like autism (Florian and Black-Hawkins 2011). They are
encouraged to question deterministic beliefs about ability and disability, and to actively avoid simplistic approaches to differentiation that can create stigma and isolate learners (ibid). Students are asked, instead, to carefully plan learning opportunities using teaching strategies that are appropriate for all and, importantly, to view ‘…difficulties in learning as professional challenges for teachers, rather than deficits in learners, that encourage the development of new ways of working’ (ibid 819).

It is argued that this approach ‘offers an important alternative to studies of students with ‘additional needs’ and the search to articulate the ‘specialist’ knowledge and skills required to teach them’ (ibid 813). As a corollary, there is little specific input on the ITE programme that enables student teachers to discuss the wide range of additional support needs that teachers will actually meet in our classrooms and schools. For example, in the context under investigation, students only receive specific input on autism spectrum condition and its implications for learning and classroom practice in the final semester of the final year (year 4), during a one hour lecture followed by a one and a half hour workshop. Arguably, this is too little, too late. It is also highly problematic within the terms of the inclusion framework set out above, for it means that students on school visits and teaching practice who encounter difficulties in learning associated with autism will be faced with a ‘professional challenge’ for which they are singularly ill-equipped. Indeed, they will find it difficult to foster ‘new ways of working’ unless they are fully guided and supported by their class teachers. As the literature review has indicated, the quality of such support is likely to be vary considerably from school to school depending on the autism awareness within the school context and the level of training in autism amongst individual teachers (Humphrey and Symes 2011).

Thus, though the ITE programme undoubtedly provides students with a broad understanding of inclusion and inclusive pedagogy, they clearly have no sound theoretical or research basis for adapting teaching and learning in order to maximise inclusion and participation amongst
learners with autism, and little basis for challenging the low expectations, attainment and achievement strongly associated with this group (Ravet 2012). As a result, student teacher understanding of inclusive practice is likely to be compromised and may not be fully supportive of learners with autism and their families (ibid). Arguably, this is a situation that bears closer analysis and raises questions about the lack of autism education at ITE level and its impact.

Research Question and Aims

This study seeks to answer the following question:

What are student and tutor perceptions of autism education on a 4 year ITE programme, and what is the impact of developments in provision based on their feedback?

The key aims of the study are as follows:

- To explore knowledge, understanding and experience of autism amongst students and their tutors on the current 4 year ITE programme;
- To consult students and tutors in the development of a sequence of autism inputs to be embedded across the four year programme within the existing framework;
- To implement and then evaluate the autism inputs in participation with students and tutors.

In order to achieve this, the research was designed in two phases:

Phase 1:

- Explore student and tutor knowledge and understanding of the distinctive features of education for pupils with autism
- Explore their experiences of supporting these learners in school
- Explore their perceptions of autism education on the ITE programme
- Explore their perceptions of the changes required to make the ITE programme more inclusive of the needs of learners with autism

Phase 2:

- Draw on feedback to collaboratively develop inputs to be embedded across all 4 years of the ITE programme
• Undertake relevant tutor training
• Implement the planned additions to the programme
• Evaluate the new inputs with students and tutors

This paper reports on phase one of the study which has now been completed. The study was designed and implemented by two researchers including the author as principal investigator (PI).

Methodology and Methods (Phase 1):

The research was designed as a qualitative study focusing on the perceptions of autism education amongst students and tutors (2014/2018 cohort) on a 4 year ITE programme at a U.K. university. Both phases of the study draw on qualitative methods (Silverman 2010). Phase 1 made use of on-line questionnaires followed by focus group interviews. The questionnaire included open-ended questions to generate insights into participant perceptions of their experiences of autism education and to facilitate sharing of ideas for improvements to autism provision on the ITE programme (see Student Questionnaire: Appendix 1). It also included yes/no questions to generate basic numerical data used to substantiate claims. However, no statistical analysis was undertaken. The questionnaire was piloted by three students and three tutors and, after amendments, the final version was considered accessible and easy to use.

Ethics, Sample, Procedures and Timing

The ethical protocols employed throughout this study are based on the ‘Ethical Guidelines for Educational Research’ (BERA 2011). The protocols have been approved by the University of Aberdeen College of Arts and Social Sciences Research Ethics and Governance Committee. All students and tutors who participated in the study attended a presentation and question and
answer session during which the research purpose was explained and the research methods were discussed. Consent, anonymity, confidentiality and the right to withdraw were explicitly addressed.

**Student/Tutor Online Questionnaire:**

All students in years two to four of the 2014/15 undergraduate ITE cohort (total 316) and their tutors (total 36) were invited to take part in phase 1 of the research. (The first year group were excluded as they were new to the university when the study commenced, had not been into schools, and were not in a position to address the research questions.). The study was therefore triangulated using two different sources of data based on a volunteer sample.

On-line questionnaires were distributed via email to all students and tutors who were asked to indicate their participation by completing them and emailing them back to the lead researcher. Those who did not wish to participate could simply delete them. To protect anonymity and confidentiality, no names were required on the questionnaire, and all responses were coded on arrival and placed in a data-base so that their origins could not be traced. Emails were deleted. This data-base was password protected and accessible to the lead researcher only. Sixteen out of 36 tutors responded to the questionnaire. Seventy three out of 316 students responded including second, third and fourth year students. The research cohort was therefore unusually large for a qualitative study.

It is important to note that the questionnaires were distributed and returned before the autism lecture and workshop for fourth year students in their final semester. This ensured that the data captured any teaching and learning about autism across all courses, but eliminated potential distortion arising from the influence of the autism input on fourth year student participants.
Student/Tutor Focus Groups:

An invitation to follow-up focus groups was administered to all students and tutors via email. Five students and five tutors volunteered and attended separate one hour group meetings. The purpose of the focus groups (Krueger and Casey 2015) was to share and reflect upon the findings of the questionnaire, debate key themes and, importantly, discuss what pedagogical inputs might be useful to students in the light of the findings. A further meeting for all ITE tutors was called to discuss possible adaptations to the undergraduate programme in preparation for phase 2 of the study (which started in January 2016). Six additional tutors attended. These tutors agreed to constitute a ‘Steering Group’ which will oversee phase 2 of the study and to whom the PI will report. Data from this steering group discussion was also recorded and is included in the data set where relevant. However, it should be noted that participation in the focus groups and steering group was entirely voluntary and self-selected. As a result, it is impossible to know whether the views of the groups were representative or not. Self-selection bias is, potentially, a limitation of the study.

Data Analysis

The data analysis was handled by the PI and Co-PI. The data set was randomly halved and each researcher undertook an independent analysis of their data. All yes/no student and tutor responses to closed questions on the questionnaires were counted to provide numerical data. All responses to open-ended questions were coded thematically to identify patterns and were also compared across the student and tutor cohorts to establish commonalities and disparities.

Data was then swapped to allow for triangulation. Codes were independently checked and then jointly amalgamated, refined and reduced in line with standard approaches to applied thematic analysis (Guest et al. 2012). Participant comments made during the one hour staff/student focus
group interviews and the steering group meeting were written up by the PI and sent to all participants to be member checked, ensuring respondent validation (Creswell 2007). All participants were reminded that comments might be used anonymously as direct quotes in future papers for publication. All member checks were positive. Data from these sources were analysed using thematic analysis as outlined above.

Findings

Four key themes arising from the data are discussed below. These themes are drawn from the entire range of data collected and are linked to the data sources as follows:

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Direct quotes arising from student / tutor focus groups and the steering group meeting are integrated into the discussion, where relevant, to illustrate subjective perceptions.

Discussion of Key Themes

1. Autism Awareness

All student teachers and tutors in the research cohort agreed, unequivocally, that teachers need a knowledge and understanding of autism in order to make sense of learner behaviour and
responses and to meet learner needs. This reflects the current consensus in the autism literature (Charman et al 2011). Many students explained the need for autism awareness with reference to the high numbers of pupils with autism in schools. Several tutors stressed the importance of autism awareness as an aspect of the inclusion agenda and emphasised that knowledge and understanding of autism can benefit all learners. It is likely that the broader inclusion focus of tutors reflects their understanding of the wider policy and research context, and also concern that autism and inclusion should not be viewed separately (Florian & Black-Hawkins 2011). It is understandable that the students are less aware of this link.

Around half of students (44 of 72) and most tutors (13 of 16) claimed to know some of the key features of autism. Students and tutors agreed that difficulties understanding social situations, and challenges around language and communication, making friends and relating to others are characteristic of the condition. Issues with eye-contact, reading feelings and fixed interests were also noted by a number of students, and sensory issues were mentioned by a few participants in both cohorts. These are, indeed, common features of autism (Ravet 2015). However, it is noteworthy that participants generally knew only one or two of the key features of autism. Only one participant directly mentioned the ‘Triad of Impairments’ (difficulties with social communication, social interaction and flexibility of thought). This is the medical term for the three dimensions of autism recognised under the International Classification of Diseases (ICD -10) currently used to diagnose autism in the U.K. (WHO 1993). This could suggest that most participants are not acquainted with the formal criteria for the condition and have gained information about autism from informal personal and professional sources and from the media (Murray 2008).

This is confirmed by some of the data. For example, 10 out of 72 students, and 1 out of 16 tutors confirmed that they have a family member with autism. These family connections may account for their autism awareness. Some students (20 of 72) mentioned that they were aware
of peers with autism whilst they were pupils themselves, and over half the students (43 of 72) encountered pupils with autism on school placements. They are likely to have drawn on these experiences in their responses to the questionnaire.

Most tutors (11 of 16) indicated that they had encountered pupils with autism during their teaching careers. This professional experience may have been a key source of knowledge and understanding. By contrast, only a small number of students (6 of 72 [8%]) and under half of tutors (6 of 16 [37%]) had received any specific training in autism – largely short, school-based inputs from an Educational Psychologist. This is also likely to have informed their knowledge and understanding of the condition and their responses to the open-ended questions.

According to Murray (2008) there is now widespread general awareness of autism amongst the public, thanks largely to a media who have become fascinated with the condition and keen to report on the latest autism research and newsworthy stories of the plight of individuals with a diagnosis. The accurate, albeit rather vague, representation of autism arising from participant responses probably reflects this wider cultural influence and is in line with expectations.

Nonetheless, it is worth noting that 28 students within the research cohort reported that they did not know the key features of autism at all. This indicates that general autism awareness cannot be taken for granted and also suggests that there may well be pockets of ignorance about the condition amongst those in the wider student body who did not take part in the study. This is a matter of concern since these students will certainly come across this group of learners on school visits and teaching practice.

Three tutors in the cohort also lack basic awareness of autism. It therefore follows logically that discussions about autism and education will not be possible in their classes. Further, they will not be able to address student questions about autism should they arise on teaching practice.
Overall, it seems that students and tutors on the ITE programme have varying degrees of autism awareness, but some students and a minority of tutors have no autism awareness at all. All students and tutors agree that there is a need for more autism education within the ITE programme, with particular attention to the key characteristics of the condition, in order to enhance autism awareness and prepare students for teaching. Several researchers report similar findings (Rosenzweig 2009, Morrier et al. 2011). This has clear implications for professional development amongst HE education tutors (Yasar and Cronin 2014).

2. Autism Teaching Strategies

Whilst most students and tutors had a basic awareness of the nature of autism, the picture changed significantly in relation to perceptions of appropriate teaching strategies. Far fewer participants (16 of 72 students; 7 of 16 tutors) knew the key teaching strategies that can be used to support learners with autism. Those that did mentioned use of routines, clear communication and visual supports. Students mentioned the importance of creating a ‘safe haven’ for those who find the classroom overwhelming, and making sure that learners are warned of change. Tutors also mentioned the importance of a low arousal environment. Again, these are all features of good autism practice (Charman et al. 2011). Some students mentioned that they had drawn on these strategies when supporting learners with autism on school placement. Some tutors stated they had drawn on them when they had worked in schools.

However, it is notable that most tutors and students in the cohort were completely unaware of them and the many other teaching strategies associated with good autism practice e.g. structuring (Mills and Marchant 2011), person-centred active support (Beadle-Brown et al. 2012), and positive behaviour support (Horner 2000). This means that these tutors will not be in a position to provide initial teacher education in autism strategies, address student knowledge gaps or compensate for a lack of practitioner role models in schools. Yasar and Cronin (2014) reported similar findings amongst teacher educators in their Turkish study. Logically, this gap
in provision will mean that students are not supported to specifically plan for learners with autism, adapt their teaching, and meet learner needs unless their school-based teacher mentors guide them.

Two students in the focus group illustrated this problem when they expressed serious concerns about the prospect of meeting and teaching pupils with autism on school placements. They commented:

‘To be honest I’m not comfortable (with children with autism). I’m a little bit scared to approach them.’

‘But how do I teach them? I don’t know about different needs. It’s terrifying.’

Students also commented that some teachers in placement schools did not appear to have much autism awareness themselves, and had little time to address the challenges learners with autism face;

‘Teachers don’t know what they are doing with these children.’

‘Teachers just don’t have the time – it’s easier to stick them on the computer.’

‘They use the word ‘inclusive’, but it’s not really inclusive.’

‘They’re shoved into schools with teachers who are not really prepared for it.’

Nonetheless, the students stressed that most teachers ‘do their best’. They recognised that, though poor resources, training and support were a problem, teachers generally try to ‘make the most of what they have’.

One student commented:
‘Teachers need more support for paperwork and planning. They need to collaborate with other adults.’

It is, of course, likely that individual students have rather diverse experiences of working with learners with autism depending on what school, classroom and teacher they are allocated. Inevitably, much depends on how ‘autism friendly’ the school is, and how well their teacher mentors are trained. Overall, these student observations very much tally with the wider literature highlighting the widespread lack of teacher knowledge and understanding of autism strategies (Humphrey and Symes 2011; Ravet 2011, Ravet 2012).

3. Barriers to Autism Education

Lack of expertise:

When asked about provision for autism education on the ITE programme, the findings were stark; only ten out of the seventy two students within the research cohort mentioned having any discussion of autism during their studies. They reported that any discussions that did arise were largely initiated by students, rather than tutors, during tutorial sessions. Focus group students commented upon this:

‘Us not having training in autism is almost anti-inclusive.’

‘We need a more pro-active stance towards autism.’

‘I think it would be very easy to embed this – there are lots of missed opportunities.’

‘Tutors need to be fully on-board’

Similarly, only nine tutors claimed to have discussed autism during their classes. When they did, the inputs were largely coincidental rather than planned. Thus there is agreement that formal autism education is conspicuous by its absence on this ITE programme (except for the
one hour lecture and one and a half hour workshop in 4th year). American and European studies of HE autism provision at undergraduate level report similar findings (Rosenzweig 2009; Donnely 2011; Barnhill et al. 2014). This highlights the dearth of opportunities for student teachers to critically analyse how theory related to inclusion, inclusive practice and inclusive pedagogy can be applied to learners with autism and other additional support needs in mainstream classrooms. Rosenzweig (2009) concludes that pre-teacher education is failing to ‘keep up with real changes that are currently being made in our education system’ (15) and emphasises that students are not being adequately prepared for inclusive teaching.

The data arising from phase one of this study indicates that this gap in ITE provision may be attributed, at least in part, to the declared lack of knowledge and understanding of autism and autism teaching strategies amongst some of the tutors on the programme.

Participants in the tutor focus group directly acknowledged this and considered the implications. One tutor expressed concern that a lack of autism education means that students might adopt normative approaches to teaching and learning in the classroom:

‘A lot of them come in and think, I remember how it was for me (at school) and think all children will just fit into that.’

Other tutors acknowledged that students occasionally raise and discuss autism issues in class. Tutors commented:

‘It tends to come from their own experience.’

‘…they must read about it and do their own research.’

However, one tutor felt that, though student learning based on experience and self-study is laudable, it can be problematic and lead to misinformation that is not being corrected by tutors:
I’d worry if students were doing random reading, as sources on autism must be numerous but
are not always credible – I’m thinking about the web and even the inaccurate use of phrases
like ‘slightly autistic’.

One tutor concluded:

‘We need to think about how to draw attention to autism. The way students respond to these
children is really important.’

These comments suggest that the tutors in the focus group were aware that a lack of
professional expertise and guidance has implications not only for student teachers, but for the
learners they may be responsible for during their training and beyond. Clearly, this suggests a
need for tutor professional development and programme development.

In a synthesis of European research, Donelly (2011) rallies a range of evidence suggesting that
many teacher educators have insufficient experience of the realities of inclusive practice and
are unable to deal with ‘contentious issues’ raised by students. She argues that teacher
educators need more support in this area. This raises questions about what form such support
should take, the degree of autism expertise that can reasonably be expected of ‘generalist’
teacher educators, and the role of autism ‘specialists’ in addressing the issue.

Tutors in the steering group convened at the end of Phase 1 of the study expressed a range of
responses to the idea of tutor professional development in autism. One tutor stated:

‘You may have to sell it to people…some will not come, there’s nothing you can do about it.
You can’t make it compulsory’

However, another tutor stated: ‘You shouldn’t have to sell the training...’ and went on to list
institutional, legislative and policy imperatives that support the case for tutor professional
development. There was therefore some ambivalence around the subject of tutor training in
autism. Whilst, on the one hand, there was agreement that it was needed, on the other hand
there was a general consensus that it should not be made compulsory. How this dilemma might be resolved requires deeper consideration.

**Curriculum Overload:**

Some tutors in the focus group expressed understandable caution about adding any further autism inputs to an already over-crowded ITE curriculum. They commented on the current ‘overkill’ across all courses and the impact this is having on students as future teachers:

‘*Students are with us for four years but major curriculum areas are barely covered e.g. arts, RE – it’s totally inadequate.*’

‘*We need to figure out what teachers should be asked to do. Too much is being expected of Primary teachers today...*’

‘*We are caught in an ‘information /action deficit – there’s too much going on.*’

Comments like these suggest that there are questions to be asked about the breadth of the current ITE curriculum and how decisions are made about what knowledge, understandings and skills should be prioritised and addressed. For a small minority of tutors in the research cohort, autism education is not a high priority; indeed, they specifically questioned why it should be given primacy over other additional support needs.

However, it is worth highlighting that autism is currently prioritised at educational policy level in the U.K., via the Autism Acts in England and Ireland, and the national strategies for autism in Scotland and Wales. All of these government-led initiatives prioritise autism training across all services, including Education. There is therefore a clear directive on the matter, at policy level at least. It is difficult to see how this policy can be enacted by student teachers and new teachers entering the profession if they do not have some autism awareness. The barriers to the enactment of policy at ITE level therefore requires further investigation.
**Labelling:**

During the student focus group discussion, it became clear that some students were concerned about what they perceived as an ‘anti-labelling’ stance amongst some tutors. The term ‘anti-labelling’ seemed to be used by the students to refer to tutor reluctance to make use of the term ‘autism’ to describe a particular set of learners who experience the difficulties associated with an autism diagnosis. This was, in turn, associated with a reluctance to discuss autism:

‘It’s quite anti-labelling in this department’

‘I don’t see what’s wrong with labelling. There’s a much greater perception of the risk than what is actually happening.’

‘We don’t give them a label, you are told they have it (in schools) – you are just handed the label.’

‘If you are taught about autism, the label will be less negative in its consequences.’

Arguably, student perceptions of the problem around labelling may have been indirectly confirmed by tutors. For example, three tutors questioned whether it was necessary to add autism inputs to the ITE programme as they considered it to be covered within the inclusion agenda already embedded in the ITE programme. Four tutors were concerned that autism was being ‘favoured’ for emphasis over other additional support needs, and questioned why it should be a priority. All of these responses seem to reflect tutor concerns about the legitimacy of directly discussing autism and educating ITE students about it. This may be linked to the wider debate within the inclusion literature about ‘dilemmas of difference’:

‘The basic dilemma is whether to recognise or not to recognise differences, as either way there are some negative implications or risks associated with stigma, devaluation, rejection or denial of relevant opportunities.’ (Norwich 2006, 1).
Labelling is an important aspect of the ongoing debate about ‘difference’ and inclusion. On the one hand, medical labels, like autism, are useful as they provide valuable information about a learner condition and its potential impact on learning. This information can help educators to minimise the impact of autism. On the other hand, there are legitimate concerns about the influence of medical categories on pupil identity and esteem, and the negative expectations and deterministic beliefs it may engender amongst teachers. (For a full discussion please see Ravet 2011.)

The findings suggest that this debate is still ‘live’ within the department at some level and may be contributing to tensions about the legitimacy of discussions about autism with students. However, the data suggests that only a minority of tutors are signalling such doubts. This is possibly because tutors adopt a range of positions on the subject of inclusion, inclusive practice and inclusive pedagogy, as there is little consensus as to the meaning and implications of these terms, both within the institution and beyond (Florian and Black-Hawkins 2011).

Tutors in the steering group confirmed that differing views on inclusion within the department can be problematic and may have influenced the responses of some tutors to the idea of autism education. Tutors commented:

‘I get the issues about autism being part of inclusion. Why shouldn’t we be having lectures on Dyslexia, etc.? But to me the students are saying clearly what they want. We are not meeting their needs. Personally, I do think autism is an important aspect.’

‘Teaching for diversity has been a problem for years’

‘There are dangers with labelling, but teachers need to know who they are teaching...these children (with autism) are so different.’

‘We are talking about difference far too theoretically.’

‘We need to look closely at the role theory plays in underpinning what students know and understand. How do you make things relevant and real to them?’
These comments suggest that a lack of a shared understanding of inclusion within the ITE department may be problematic, and may underpin antipathy to autism education. This is not wholly surprising, as questions about the links between autism and inclusion have been raised in the literature over many years (Norwich 2006; Ravet 2011). A few tutors in the steering group clearly feel this matter should be more closely questioned, and that there is a case to be made for autism education at ITE level. It would be useful to determine the significance of this debate in other U.K. ITE contexts.

4. Future Directions

More than half of the students who responded to the questionnaire indicated a desire for inputs on the characteristics of autism and on relevant teaching strategies. Tutors largely agreed. Several participants also requested input on the autism learning style. One focus group student stated that more inputs were required on a wide variety of additional support needs, not just autism. She commented:

‘We need more on all the learning challenges and differences; autism is the big one so it deserves its own place on the course, but we need them all.’

It is impossible to know how widely this sentiment is held across student body, but the comment points to the possibility that students may feel they lack sufficient inputs on other conditions affecting learner academic and social inclusion in schools. This would be a valuable focus for a follow-up study.

When students and tutors were asked, in their focus groups, what specific autism inputs might be of value to them, their proposals were similar and included the following;

- References to autism resources, readings and research to be added to lectures across all relevant courses.
- Use of videos to bring the reality of autism to life
- Joint student/tutor training in the key features of autism.
• Discussions of autism theory.
• Use of autism case studies to stimulate thinking and learning
• Autism training for tutors
• Autism electives for students

All participants clearly see a need to integrate autism into current courses as well as the need for additional inputs on autism theory, the nature of autism and how it impacts on learning. It was important to students, in particular, that the subject is debated with real life examples and personal testimonies. Electives on autism would enable students with a particular interest in the subject to extend and deepen their knowledge and understanding. However, these proposals will inevitably conflict with the views of the small minority of tutors who seek to avoid medical labelling, privileging autism or making additions to an already overcrowded curriculum. This must be addressed in phase 2 of the study.

Conclusions

This research study has provided a unique insight into gaps in current autism provision for student teachers in one HE establishment. Though statistical generalisability is not the aim of qualitative research (Creswell 2007), it is reasonable to speculate that the findings of this study have analytic generalisability (Yin 2003) and therefore have transferrable meaning for student teachers and tutors in similar ITE contexts.

The key findings are that most student teachers and tutors involved in the ITE programme lack adequate awareness of the key characteristics of autism, as well as secure knowledge and understanding of evidence-based autism teaching strategies. The data indicated that there are no planned autism inputs across the ITE programme (except in year 4), and few unplanned discussions of autism and learning except where these are initiated by students. This is related,
at least in part, to a lack of expertise amongst ITE tutors, concerns about curriculum overkill, and tensions around labelling and inclusion theory. There was broad agreement that this lack of autism education will have a deleterious impact on learners with autism for whom student teachers are responsible during their teacher training and beyond, as it could seriously impede the co-constructive processes that lie at the heart of effective teaching and learning (Murris 2016). Students and tutors proposed that more autism education was required across all four years of the ITE programme, and suggestions were provided as to how to address this. These will be followed up and evaluated in phase 2 of the study.

Though literature in the area of autism and ITE is limited, the findings summarised above confirm many of the outcomes emerging from the European and American literature referred to throughout this paper. However, the study also raised some additional issues that reflect the U.K. cultural and institutional context. Here, I refer to the intersectionalities between autism education at HE level and three key areas:

- ITE tutor expertise/professional development
- ITE curriculum priorities;
- ITE tutor perceptions of inclusion and labelling

Replication of this study would be advantageous to establish whether the study outcomes have any stability across ITE contexts. It would also be valuable to explore whether the intersectionalities above have wider relevance and whether they predictably influence autism education at HE level. These issues deserve far wider research and debate in order to clarify the role of autism education at HE level and to ensure that future generations of teachers can fully include learners with autism.