

**Making reasonable adjustments for pupils with special educational needs and disabilities: pre-service teachers' perceptions of an online support resource**

MORLEY, David <<http://orcid.org/0000-0002-4389-8573>>, MAHER, Anthony, WALSH, Barbara, DINNING, Track, LLOYD, Diane and PRATT, Andrea

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This document is the Accepted Version [AM]

**Citation:**

MORLEY, David, MAHER, Anthony, WALSH, Barbara, DINNING, Track, LLOYD, Diane and PRATT, Andrea (2017). Making reasonable adjustments for pupils with special educational needs and disabilities: pre-service teachers' perceptions of an online support resource. British Journal of Special Education, 44 (2), 203-219. [Article]

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## 1    **Introduction**

2    Whilst different countries around the world established educational support for children with  
3    learning difficulties and disabilities (see, for example, EADSNE, 2003; US Department of  
4    Education, 2004), the UK's Children and Families Bill (DfE/DfBIS, 2013) endeavored to meet  
5    the social, educational, and health needs of all children through accessibility and entitlement to  
6    services such as education. The onus, here, was on schools to make 'reasonable adjustments'  
7    through the formulation and implementation of strategies to improve 'access' to the taught  
8    curriculum (Porter et al., 2013). The Bill was influenced by the Equality Act (Stationery Office,  
9    2010), which called on British schools to 'avoid as far as possible by reasonable means, the  
10    disadvantage which a disabled pupil experiences because of their disability' (EHRC, 2015).  
11    Teachers of all subjects need to be creative and flexible in order to develop and deliver  
12    differentiated lessons that optimize the capabilities of all pupils, even more so for children with  
13    special educational needs and disabilities (SEND) (Lovey, 2002).

14        Within educational institutions, teachers' competence and confidence affect their ability  
15    to make reasonable adjustments for pupils with SEND, and this highlights the crucial role of  
16    appropriate pre-service training. Studies carried out in the USA (Van Reusen et al., 2000),  
17    Australia (Center & Ward, 1987), and the UK (Avramidis & Norwich, 2002) suggest that  
18    training and qualifications acquired during pre-service training, aimed specifically at supporting  
19    children with SEND, resulted in positive attitudes towards inclusion and more inclusive  
20    pedagogies amongst teachers.

21        The importance of teacher training for developing positive attitudes to inclusion and  
22    increasing competence and confidence when teaching pupils with SEND is further emphasized  
23    within UNESCO's policy guidelines on inclusion in education (2009), the world report on

disability (WHO, 2011), and a more recent publication of the European Agency for Development in Special Needs Education (2012). Whilst the upskilling of teacher trainees in teaching children with SEND has formed part of the training of mainstream primary and secondary school teachers for some time now in the UK, the coverage has been found to be varied, inconsistent, and in some instances, limited (Salt, 2010), especially according to newly qualified primary school teachers (NCTL, 2014). The time pressures of one-year teacher education programs has meant that time spent covering inclusion is at a premium in the UK (Salt, 2010), despite its aforementioned importance, at least at policy level.

Policy guidelines relating to reasonable adjustments suggest that schools must take reasonable steps to avoid disadvantage to a pupil with a disability caused by provision or practice applied by a school (Stationery Office, 2010). However, there is no mention as to the most appropriate medium of dissemination for teachers to be able to access, absorb, and utilize the knowledge required to actually implement such steps. Internationally, there has been a notable increase in the number of teacher education programs that use technology-mediated instruction for distance learning. For those who teach children with moderate to severe learning difficulties, online instruction has been deemed a largely successful form of pedagogy (e.g. Jameson & McDonnell, 2007). Some of the reported benefits of online professional development tools for teachers are convenience, flexibility, and reduced travel cost (Hurt, 2008), all of which are pragmatic rather than pedagogical. Thompson et al. (2012) went one step further in their research by developing a methodology that enabled a comparison of face-to-face and online delivery formats. Here, similar outcomes were found across both formats *vis-à-vis* pupil achievement, engagement, and satisfaction (Thompson et al., 2012).

Whilst international research, particularly in the USA, has explored the views and experiences of pre-service teachers in relation to (1) teaching pupils with SEND and (2) using online resources for professional development purposes, predominantly in distance learning programs (e.g. Hartley et al., 2015), to our knowledge, none has yet attempted to evaluate the impact of a specific online resource on pre-service teachers' ability to make reasonable adjustments for children with SEND within the context of the UK professional teaching standards framework (DfE, 2013). An understanding of the impact of online distance learning support on teachers' effectiveness, recruitment, and retention has been called for on numerous occasions (e.g. Hanline et al., 2012). Given the purported need for more high-quality and relevant SEND training in the UK, this article aims to evaluate the impact of an online resource on the perceptions of pre-service teachers in making reasonable adjustments for pupils with SEND. In order to achieve this aim, the following objectives were set: (1) explore pre-service teachers' perceptions of making reasonable adjustments prior to, and following, the use of the online resource; and (2) evaluate the impact of the online resource on how pre-service teachers plan for, teach, and assess pupils with SEND within the construct of Teachers' Standards (DfE, 2013).

## *Methodology*

### **Background**

The UK Parliament established the Equality and Human Rights Commission (EHRC), under the auspices of the 2006 Equality Act, with the mandate of challenging discrimination, and protecting and promoting human rights (EHRC, 2015). The EHRC's role is that of outcomes-focused strategic regulator, promoter of standards and good practice, and center for intelligence and innovation (EHRC, 2015). Academic staff from a university in North-West England were

funded by the EHRC to develop a suite of online modules (known hereafter as the ‘online resource’) to help teachers to make reasonable adjustments for pupils with SEND (EHRC, 2016). The online resource was developed to support a range of staff working with pupils with SEND within mainstream schools, namely, senior leaders and managers, and teaching assistants and pre-service teachers, as well as classroom-based and subject-specific teachers. The EHRC approved the evaluation of the online resources, although they had no influence over the research design or the publication of findings. University ethical approval was sought and granted in line with the British Educational Research Association’s ethical guidelines (BERA, 2011).

## **Approach**

An interpretivist qualitative approach was used in this research because it was deemed the most appropriate for exploring the key research questions (Teddle & Tashakkori, 2010) which were designed to help shed light on pre-service teachers’ views and their experiences of the online resource and how it had, or had not, influenced the way in which they made reasonable adjustments for pupils with SEND. Therefore, an interpretivist approach afforded an understanding of the social worlds of pre-service teachers through an exploration of meaning constructed by them (Bryman, 2012). A notable limitation of qualitative approaches is that the knowledge generated from pre-service teachers cannot and should not be generalized to wider populations of teachers. Nonetheless, the findings of this study can go some way towards contributing to the ever-growing body of knowledge (Elias, 1987) on teacher training and inclusive education.

## **Method**

Focus group discussions were used as a method to capture data because they are recognized as beneficial for researchers interested in how pre-service teachers interpret, construct, and negotiate meaning (Payne & Payne, 2004), *vis-à-vis* the experiences of the training they receive and how, if at all, such training informs practice. Given that pre-service teachers' views and experiences are shaped through interaction with others (Elias, 1987), including fellow pre-service teachers, when gathering data, focus groups were used as a way of reflecting this dynamic social interaction. Here, the collective view is just as important as the individual view because meaning and the interpretation of experiences is often sought and achieved through negotiation (Bryman, 2012), a view which is in keeping with an interpretivist paradigm.

In order for the discussion to have a degree of structure and be germane to the objectives of the research, an interview guide was used (Marshall & Rossman, 2011). This helped to ensure that an appropriate degree of consistency across focus groups was achieved during data generation, whilst giving enough flexibility to allow for exploration of issues that were salient to each individual and group (Arthur et al., 2013). The interview schedule was structured in direct relation to the three research objectives and conceptualized within the context of Teachers' Standards (DfE, 2013). In the UK, the Standards (DfE, 2013) identify the minimum level of practice expected of pre-service teachers in order to be awarded qualified teacher status (QTS). Whilst research has explored the potential and actual impact of the Teachers' Standards on teacher professionalism, accountability, identity, and competence (e.g. Goepel, 2012), none has yet used the Standards as an organizing conceptual tool. Table 1 exemplifies questions mapped to Standards.

**[Insert Table 1 here]**

*Sample and Procedures*

Secondary school teacher trainees (n=12) participated in four focus groups, consisting of three participants per group, with the interviews conducted at a university in North-West England. Researchers gave an information letter to pre-service teachers, prior to their involvement, which explained the study and requested their involvement in the research. The participants who were recruited were those who were deemed most able to discuss our research objectives as they fulfilled the following criteria: (1) had studied the reasonable adjustments online modules; (2) were studying towards an undergraduate degree in teaching in order to obtain QTS; (3) had experience of working with children with SEND; and (4) were available and willing to participate in a focus group.

Participants signed consent forms as evidence that their involvement was voluntary and that they were aware that they could withdraw from the study at any moment with all data generated being destroyed (BERA, 2011). Focus groups were held in separate classrooms at the university in which the participants were studying. This setting was used as the familiarity of the environment and fellow participants might have encouraged more open and honest discussions, thus resulting in the capture of richer data (Bryman, 2012). Focus group discussions generally lasted between 30 and 60 minutes; such a large disparity in duration was determined by the participants' willingness to engage in relevant and meaningful discussion. To ensure a degree of consistency across the focus groups, the lead researcher met with all of the researchers responsible for facilitating the interviews to discuss the interview process, themes, and use of pertinent probes. Briefing notes were also provided to help with standardization. Of course, the dynamic and fluid nature of focus groups (Payne & Payne, 2004) meant that a high degree of control and regulation was not achievable or even desirable.

An audio recording device was used, with the permission of participants, to record discussions. This approach attempted to prevent key information being missed and allowed the facilitator the freedom to engage with the group. Soon after each focus group, the audio file was uploaded to a password-protected file on a personal computer and deleted from the audio device as a way of meeting data protection requirements (Stationery Office, 1998). Audio files were then transcribed verbatim, and during this process all identifying information was replaced by pseudonyms (Participant A, for example) to ensure anonymity (Webster et al., 2013). Transcripts were also saved to a password-protected file on a personal computer for data analysis.

#### *Data Analysis*

A computer-assisted qualitative data analysis software (CAQDAS) package was used to store, manage, and code the interview transcripts. The use of CAQDAS is reported to improve the rigor and consistency of analysis because it allows for all data to be systematically explored rather than simply those parts that support a researcher's interpretation (Seale, 2010). It must be noted, however, that the coding of transcripts is still the role of researchers. In response to the research aim, data relating to the objectives concerning pre-service teachers' perceptions was coded using thematic analysis whereby hierarchical ordering of data was achieved using themes, with thematic descriptors, and sub-themes articulated as they emerged. Conversely, where objectives were more stringently established to fulfill a particular purpose, data analysis was very much construed around the research questions, as some questions were mapped specifically to reveal particular perceptions, for example, those to which Teachers' Standards (DfE, 2013) were mapped. For example, Standard 4 relates to 'plan and teach well-structured lessons' and was transposed within the code of 'Planning'. Coding involved labeling sections of the transcripts



aligned to the research objectives and also exploring emerging themes. These were then stored together to form sub-categories and then key themes (Flick, 2009). These are shown below in Table 1 and have been used to structure the findings and discussion.

[Insert Table 2 here]

## Findings

### *The Impact of the Online resource on Participants' Understanding of Reasonable Adjustment and Children's Needs*

The focus groups aimed to explore what, if any, impact the online resource had on pre-service teachers' understanding of reasonable adjustments and the needs of pupils with SEND. This was in line with the requirements of the Teachers' Standards (DfE, 2013, p. 12), which state that 'teachers must have a clear understanding of the needs of all pupils, including those with special educational needs'. The two sub-themes to emerge from the data analysis were (i) complexity of SEND in relation to making reasonable adjustments and (ii) influence of previous experience, both of which are explored below.

### *Complexity of SEND in Relation to Making Reasonable Adjustments*

For some pre-service teachers, the nature of the impact of the online resource was clearly evident:

It wasn't until the software [online resource] we used that I realised how much more that was out there that you had to make reasonable adjustments for. So again, the software did open my eyes a bit more to stuff that I haven't yet dealt with, but I may come across (Participant A).

It did open my eyes to what it could mean in terms of physical disabilities, maybe meaning you would have to think about how you would do classroom activities or outdoor activities to make sure that they [pupils with SEND] are included. So I think it

has opened my eyes to the scope of what reasonable adjustments could mean (Participant A).

Recent UK governmental policy has endeavored to capture and convey the complexity of the needs of pupils with SEND in the way that needs are typified related to (1) communicating and interacting; (2) cognition and learning; (3) social, emotional, and mental health difficulties; and (4) sensory and/or physical needs (DfE/DoH, 2015). However, it must be noted that pupil needs and capabilities are dynamic and ever changing, rather than rigid and fixed, so cannot be compartmentalized into categories of convenience. Whilst recognizing that ‘categories’ of SEND are perhaps an effective way of knowledge transmission, in the same mechanistic way in which Teachers’ Standards are promulgated, it is paramount that teachers recognize that pupils with SEND are not a homogenous group and reasonable adjustments should be made according, as always, to individual need. For Participants A and B, the resource was deemed to have impact because it broadened their knowledge and understanding of the scope and complexity of pupil needs and how these needs can be met through making reasonable adjustments.

#### *Previous experience*

Participant J suggested that the impact of the online resource was reduced because they had four years’ experience working with pupils with SEND as a teaching assistant. When asked if the online resource had influenced their understanding of reasonable adjustments, they replied: ‘Not really, because I did it already in my school for the past four years. I think that if I hadn’t done it for them for four years, then it would have helped me a little bit. But because I’ve already done it, I already knew most of it’ (Participant J). Participant D was another who had previous experience of working with pupils with SEND: ‘I have experienced working with disabled young people before I started my teacher training. I worked in an SEN school, working with children

207 with autism. So that's my kind of background before I started my teacher training'. Participant E,  
208 too, had experience working with children with autism, in their capacity as a teaching assistant in  
209 a mainstream school: 'I did a year as a TA [teaching assistant] before I applied to be a teacher  
210 and that was in the SEN department so there were various different students. There was anything  
211 from really physical abilities to just lower abilities; kids with autism, a whole range really'.  
212 These findings present a stark contrast to studies in other countries, which report pre-service  
213 teachers feeling under underprepared due to their lack of experience of working with children  
214 with SEND (Hemmings & Woodcock, 2011).

215         It is perhaps unsurprising to hear that some of the pre-service teachers had previously  
216 worked as teaching assistants given that, in Britain at least, successful entrance onto teacher  
217 education courses at universities and in schools has become much more competitive as a result of  
218 central government funding cuts (Ward, 2013). A fortunate by-product of this competitive  
219 environment is that pre-service teachers are bringing with them an array of practitioner-based  
220 experiences that allow them to maximize opportunities for reflection and professional  
221 development during their Initial Teacher Training. It has long been established that prior  
222 experience of working with pupils with SEND can lead to positive attitudes to inclusion in  
223 education (Avramidis & Norwich, 2002) and, arguably, a greater propensity to make reasonable  
224 adjustments. Studies in the USA have provided similar evidence that the experiential benefit  
225 gained from working with children with a range of disabilities greatly affects the perceived  
226 confidence of pre-service teachers (Cramer et al., 2015). What remains, however, are questions  
227 related to the quality of the experience provided during pre-service training. For example,  
228 Guardino (2015) found that the majority of teachers (53%) in her study felt that their pre-service

229 teacher-training program had prepared them ‘slightly’ to ‘not at all’ in relation to the specific  
230 teaching of children who were deaf or hard of hearing.

231           For other pre-service teachers, the impact of the resource was minimal in that it ‘did  
232 [increase awareness] to an extent but it was very basic. It [the content] was more common sense  
233 than it was new information’ (Participant G). Participant I supported these comments by saying  
234 ‘I agree. It [the online resource] seemed like a recap of things we’ve previously covered. Points  
235 to consider and different aspects we needed to look at, but nothing specifically new’. This is not  
236 necessarily to say that the online resource is not a useful tool for increasing awareness of  
237 reasonable adjustments and the needs of pupils. It is more, perhaps, the encouraging news that  
238 some pre-service teachers had already gained this knowledge regarding meeting the needs of  
239 children with SEND from previous experiences and/or pre-service training, whilst others had not.

#### 240 *Impact on Teaching and Learning*

241 In order to move beyond an analysis of the impact of the online resource on pre-service teacher  
242 knowledge of reasonable adjustments, the focus groups explored the ways in which, if at all, the  
243 online resource has influenced the actions of pre-service teachers; that is, the impact of the online  
244 resource on their practice. The three most prominent sub-themes to emerge within this theme  
245 were (i) planning and (ii) assessment.

#### 246 *Planning*

247 According to Participant I, the online resource ‘had a massive impact on planning, in that I was  
248 able to give more consideration to things that I needed to put in place for the students, things that  
249 I might need to consider and plan for’. Participant F was another who suggested that the online  
250 resource had a positive impact on their planning for inclusion because it ‘covered a crucial

251 awareness that aided the planning of lessons... Being able to plan ahead of time rather than  
252 doing things off the cuff is key, so the lessons are as seamless as possible to the students'. One of  
253 the key benefits of being proactive through careful inclusive lesson planning – rather than  
254 reactive by trying to make adjustments during a lesson as challenges to inclusion emerge – is that  
255 the approach is more in keeping with a social ideology of disability (Barton, 1993). Indeed,  
256 attempts to restructure learning environments so that pupils with SEND do not have to assimilate  
257 into the culture of education that was intended for pupils without SEND are often considered to  
258 be more inclusive (Barton, 1993). Comments by Participant H also clearly illustrate the ways in  
259 which the online resource has influenced how they plan for inclusion:

260 I found that having the awareness of it [reasonable adjustments] did impact on my  
261 planning because you are sitting there thinking, what can I do for the warm-up? When I  
262 was planning the warm-up, when I was planning the ore movement that I was going to  
263 teach them throughout the lesson, I was thinking: make it more accessible to that  
264 particular learner. I put her in a group with some core movement that had been adapted  
265 for her, so that was really helpful.

266  
267 Whether the approach mentioned by Participant H ensured that the identified pupil had a more  
268 meaningful and enriching learning experience is difficult to say from the data available. What  
269 can be said, however, is that the online resource is reported to have had a positive impact on the  
270 way pre-service teachers attempt to make reasonable adjustments during the planning stage,  
271 which is encouraging given that the Teachers' Standards (DfE, 2013) require teachers to 'plan  
272 and teach well-structured lessons' and 'contribute to the design and provision of an engaging  
273 curriculum' for all pupils, including those with SEND.

#### 274 *Assessment*

275 The next theme to be explored relates to the ways in which the online resource influenced how  
276 the pre-service teachers made reasonable adjustments as part of assessment strategies. According

to Participant I, the online resource ‘changed how I look at assessment’. For them, it was important that all pupils are ‘measured against the same grading system, but it might be tweaked or changed to make it personal for an individual’ (Participant I). Conversely, Participant A was quite critical of the ‘one-size-fits-all assessment for GCSE [General Certificate of Secondary Education] students’ by arguing that you have to be able to make adjustments to assessments ‘otherwise, you are not going to get an across-the-board assessment of how people [pupils] have progressed’. Unfortunately, it is beyond the scope of this article to explore the appropriateness of standardized GCSE assessments for pupils with SEND (see Salvia et al., 2013). Nonetheless, it is worth remembering that there is a legal duty for teachers to use appropriate assessment to set targets which are deliberately ambitious and ensure the progress of all pupils, including those with SEND (DfE/DoH, 2015). Participant C explained how, based on what they had learned from the online resource, they made reasonable adjustments as part of their assessment strategies: ‘there are adjustments for abilities and then obviously a student might be given a scribe or a reader so there is an adjustment for the exam. Yes, that is it, isn’t it, a reader or a scribe’. Participant E is another who gave specific examples of the reasonable adjustments they now make as a result of the online resource: ‘If it was a child with autism, where they sit in the classroom is important; who they sit with is important. Children who are dyslexic, making sure their papers are different’.

Whilst Participants C and E focused on the reasonable adjustments made as part of the assessment activities, Participant J emphasized what they learned from the online resource when it comes to ensuring that pupils with SEND are prepared for the assessment:

For our ASD pupils, we have to make adjustments to the classroom to make sure that they’re free, everything’s labeled, that we’ve got visual timetables around so that the pupils know what’s happening throughout the day. That around the school everything is

labeled so the children know where things are and that the day rooms run smoothly and if there are any changes, that pupils are made aware of it as soon as possible (Participant J).

### *Conclusion*

This research evaluated the impact of an online resource on the perceptions of pre-service teachers in making reasonable adjustments for pupils with SEND. From the findings of the research, it appeared that pre-service teachers are a receptive group when it comes to reasonable adjustments, in that they seem committed to understanding the needs and capabilities of pupils with SEND and making adjustments to learning activities and other experiences to ensure that all pupils are equitably challenged to meet their potential.

The online resource appeared to increase the knowledge and understanding of some pre-service teachers in relation to the complexity of SEND as a concept and was generally well received as a learning format. This reflects previous international studies that have used technology to successfully support pre-service teachers in special education, perhaps due to its engaging and interesting format (Rayner & Allen, 2013).

The impact of the online resource was less noticeable for those who had previous experience of supporting pupils with SEND in schools. This is not necessarily to say that the online resource is not a useful tool for increasing awareness of reasonable adjustments. In fact, the impact was deemed significant by those who had little or no experience of making reasonable adjustments and/or working with pupils with SEND. It is more that some pre-service teachers had already gained this knowledge from previous experiences, whilst others had not. Perhaps the online resource could be differentiated itself with an initial scoping exercise of previous experiences that would then lead to the appropriate signposting based on a teacher trainee's prior experiences of supporting children with SEND. After all, structured 'field' experiences and knowledge of disability are said to increase awareness and positive attitudes to teaching pupils

with SEND (Campbell et al., 2003). It would be interesting to know what, if any, impact the online resource would have on serving teachers, given that most, if not all, should have some experience of teaching pupils with SEND.

When it comes to teaching and learning, the online resource was found to have had a positive impact on the planning and assessment strategies of pre-service teachers. Making reasonable adjustments at the planning stage will, arguably, ensure that a well-structured lesson and engaging curriculum are delivered to all pupils, including those with SEND..

What is not yet known is how committed to making reasonable adjustments other key stakeholders are. Future research will need to analyze the extent to which senior managers in schools, SENCOs, and LSAs, to name a few, are committed to making reasonable adjustments. There are many involved in the educational experiences of pupils with SEND, and the extent to which they are committed or opposed to making reasonable adjustments will influence, by degrees, whether or not pupils experience disadvantage.

The evaluation of the resource over a sustained period of time is crucial in understanding whether pre-service teachers entering the profession are given the expressive freedom (Elias, 1978) to make reasonable adjustments by those who are part of their schools, such as senior managers, fellow teachers, support assistants, and pupils. This is particularly important when considering the ‘wash-out’ effect (Zeichner, 1986) that newly qualified teachers might experience as they become socialized into their new institutions, with the potential for ideals and practices developed at university being superseded by their new culture.

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447 **Table**