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

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Introduction

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

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

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

24   disability (WHO, 2011), and a more recent publication of the European Agency for Development

25   in Special Needs Education (2012). Whilst the upskilling of teacher trainees in teaching children

26   with SEND has formed part of the training of mainstream primary and secondary school teachers

27   for some time now in the UK, the coverage has been found to be varied, inconsistent, and in

28   some instances, limited (Salt, 2010), especially according to newly qualified primary school

29   teachers (NCTL, 2014). The time pressures of one-year teacher education programs has meant

30   that time spent covering inclusion is at a premium in the UK (Salt, 2010), despite its

31   aforementioned importance, at least at policy level.

32   Policy guidelines relating to reasonable adjustments suggest that schools must take

33   reasonable steps to avoid disadvantage to a pupil with a disability caused by provision or practice

34   applied by a school (Stationery Office, 2010). However, there is no mention as to the most

35   appropriate medium of dissemination for teachers to be able to access, absorb, and utilize the

36   knowledge required to actually implement such steps. Internationally, there has been a notable

37   increase in the number of teacher education programs that use technology-mediated instruction

38   for distance learning. For those who teach children with moderate to severe learning difficulties,

39   online instruction has been deemed a largely successful form of pedagogy (e.g. Jameson &

40   McDonnell, 2007). Some of the reported benefits of online professional development tools for

41   teachers are convenience, flexibility, and reduced travel cost (Hurt, 2008), all of which are

42   pragmatic rather than pedagogical. Thompson et al. (2012) went one step further in their research

43   by developing a methodology that enabled a comparison of face-to-face and online delivery

44   formats. Here, similar outcomes were found across both formats *vis-à-vis* pupil achievement,

45   engagement, and satisfaction (Thompson et al., 2012).

46   Whilst international research, particularly in the USA, has explored the views and

47   experiences of pre-service teachers in relation to (1) teaching pupils with SEND and (2) using

48   online resources for professional development purposes, predominantly in distance learning

49   programs (e.g. Hartley et al., 2015), to our knowledge, none has yet attempted to evaluate the

50   impact of a specific online resource on pre-service teachers' ability to make reasonable

51   adjustments for children with SEND within the context of the UK professional teaching

52   standards framework (DfE, 2013). An understanding of the impact of online distance learning

53   support on teachers' effectiveness, recruitment, and retention has been called for on numerous

54   occasions (e.g. Hanline et al., 2012). Given the purported need for more high-quality and

55   relevant SEND training in the UK, this article aims to evaluate the impact of an online resource

56   on the perceptions of pre-service teachers in making reasonable adjustments for pupils with

57   SEND. In order to achieve this aim, the following objectives were set: (1) explore pre-service

58   teachers' perceptions of making reasonable adjustments prior to, and following, the use of the

59   online resource; and (2) evaluate the impact of the online resource on how pre-service teachers

60   plan for, teach, and assess pupils with SEND within the construct of Teachers' Standards (DfE,

61   2013).

62   *Methodology*

63   **Background**

64   The UK Parliament established the Equality and Human Rights Commission (EHRC), under the

65   auspices of the 2006 Equality Act, with the mandate of challenging discrimination, and

66   protecting and promoting human rights (EHRC, 2015). The EHRC's role is that of outcomes-

67   focused strategic regulator, promoter of standards and good practice, and center for intelligence

68   and innovation (EHRC, 2015). Academic staff from a university in North-West England were

69   funded by the EHRC to develop a suite of online modules (known hereafter as the 'online

70   resource') to help teachers to make reasonable adjustments for pupils with SEND (EHRC, 2016).

71   The online resource was developed to support a range of staff working with pupils with SEND

72   within mainstream schools, namely, senior leaders and managers, and teaching assistants and

73   pre-service teachers, as well as classroom-based and subject-specific teachers. The EHRC

74   approved the evaluation of the online resources, although they had no influence over the research

75   design or the publication of findings. University ethical approval was sought and granted in line

76   with the British Educational Research Association's ethical guidelines (BERA, 2011).

77   **Approach**

78   An interpretivist qualitative approach was used in this research because it was deemed the most

79   appropriate for exploring the key research questions (Teddlie & Tashakkori, 2010) which were

80   designed to help shed light on pre-service teachers' views and their experiences of the online

81   resource and how it had, or had not, influenced the way in which they made reasonable

82   adjustments for pupils with SEND. Therefore, an interpretivist approach afforded an

83   understanding of the social worlds of pre-service teachers through an exploration of meaning

84   constructed by them (Bryman, 2012). A notable limitation of qualitative approaches is that the

85   knowledge generated from pre-service teachers cannot and should not be generalized to wider

86   populations of teachers. Nonetheless, the findings of this study can go some way towards

87   contributing to the ever-growing body of knowledge (Elias, 1987) on teacher training and

88   inclusive education.

89   **Method**

90 Focus group discussions were used as a method to capture data because they are recognized as

91 beneficial for researchers interested in how pre-service teachers interpret, construct, and

92 negotiate meaning (Payne & Payne, 2004), *vis-à-vis* the experiences of the training they receive

93 and how, if at all, such training informs practice. Given that pre-service teachers' views and

94 experiences are shaped through interaction with others (Elias, 1987), including fellow pre-

95 service teachers, when gathering data, focus groups were used as a way of reflecting this

96 dynamic social interaction. Here, the collective view is just as important as the individual view

97 because meaning and the interpretation of experiences is often sought and achieved through

98 negotiation (Bryman, 2012), a view which is in keeping with an interpretivist paradigm.

99   In order for the discussion to have a degree of structure and be germane to the objectives

100 of the research, an interview guide was used (Marshall & Rossman, 2011). This helped to ensure

101 that an appropriate degree of consistency across focus groups was achieved during data

102 generation, whilst giving enough flexibility to allow for exploration of issues that were salient to

103 each individual and group (Arthur et al., 2013). The interview schedule was structured in direct

104 relation to the three research objectives and conceptualized within the context of Teachers'

105 Standards (DfE, 2013). In the UK, the Standards (DfE, 2013) identify the minimum level of

106 practice expected of pre-service teachers in order to be awarded qualified teacher status (QTS).

107 Whilst research has explored the potential and actual impact of the Teachers' Standards on

108 teacher professionalism, accountability, identity, and competence (e.g. Goepel, 2012), none has

109 yet used the Standards as an organizing conceptual tool. Table 1 exemplifies questions mapped

110 to Standards.

111   **[Insert Table 1 here]**

112 *Sample and Procedures*

113 Secondary school teacher trainees (n=12) participated in four focus groups, consisting of three

114 participants per group, with the interviews conducted at a university in North-West England.

115 Researchers gave an information letter to pre-service teachers, prior to their involvement, which

116 explained the study and requested their involvement in the research. The participants who were

117 recruited were those who were deemed most able to discuss our research objectives as they

118 fulfilled the following criteria: (1) had studied the reasonable adjustments online modules; (2)

119 were studying towards an undergraduate degree in teaching in order to obtain QTS; (3) had

120 experience of working with children with SEND; and (4) were available and willing to

121 participate in a focus group.

122   Participants signed consent forms as evidence that their involvement was voluntary and

123 that they were aware that they could withdraw from the study at any moment with all data

124 generated being destroyed (BERA, 2011). Focus groups were held in separate classrooms at the

125 university in which the participants were studying. This setting was used as the familiarity of the

126 environment and fellow participants might have encouraged more open and honest discussions,

127 thus resulting in the capture of richer data (Bryman, 2012). Focus group discussions generally

128 lasted between 30 and 60 minutes; such a large disparity in duration was determined by the

129 participants' willingness to engage in relevant and meaningful discussion. To ensure a degree of

130 consistency across the focus groups, the lead researcher met with all of the researchers

131 responsible for facilitating the interviews to discuss the interview process, themes, and use of

132 pertinent probes. Briefing notes were also provided to help with standardization. Of course, the

133 dynamic and fluid nature of focus groups (Payne & Payne, 2004) meant that a high degree of

134 control and regulation was not achievable or even desirable.

135   An audio recording device was used, with the permission of participants, to record

136   discussions. This approach attempted to prevent key information being missed and allowed the

137   facilitator the freedom to engage with the group. Soon after each focus group,

138   the audio file was uploaded to a password-protected file on a personal computer and deleted

139   from the audio device as a way of meeting data protection requirements (Stationery Office,

140   1998). Audio files were then transcribed verbatim, and during this process all identifying

141   information was replaced by pseudonyms (Participant A, for example) to ensure anonymity

142   (Webster et al., 2013). Transcripts were also saved to a password-protected file on a personal

143   computer for data analysis.

144   *Data Analysis*

145   A computer-assisted qualitative data analysis software (CAQDAS) package was used to store,

146   manage, and code the interview transcripts. The use of CAQDAS is reported to improve the rigor

147   and consistency of analysis because it allows for all data to be systematically explored rather

148   than simply those parts that support a researcher's interpretation (Seale, 2010). It must be noted,

149   however, that the coding of transcripts is still the role of researchers. In response to the research

150   aim, data relating to the objectives concerning pre-service teachers' perceptions was coded using

151   thematic analysis whereby hierarchical ordering of data was achieved using themes, with

152   thematic descriptors, and sub-themes articulated as they emerged. Conversely, where objectives

153   were more stringently established to fulfill a particular purpose, data analysis was very much

154   construed around the research questions, as some questions were mapped specifically to reveal

155   particular perceptions, for example, those to which Teachers' Standards (DfE, 2013) were

156   mapped. For example, Standard 4 relates to 'plan and teach well-structured lessons' and was

157   transposed within the code of 'Planning'. Coding involved labeling sections of the transcripts

158   aligned to the research objectives and also exploring emerging themes. These were then stored

159   together to form sub-categories and then key themes (Flick, 2009). These are shown below in

160   Table 1 and have been used to structure the findings and discussion.

161   **[Insert Table 2 here]**

162   **Findings**

163   *The Impact of the Online resource on Participants' Understanding of Reasonable Adjustment*

164   *and Children's Needs*

165   The focus groups aimed to explore what, if any, impact the online resource had on pre-service

166   teachers' understanding of reasonable adjustments and the needs of pupils with SEND. This was

167   in line with the requirements of the Teachers' Standards (DfE, 2013, p. 12), which state that

168   'teachers must have a clear understanding of the needs of all pupils, including those with special

169   educational needs'. The two sub-themes to emerge from the data analysis were (i) complexity of

170   SEND in relation to making reasonable adjustments and (ii) influence of previous experience,

171   both of which are explored below.

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

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

174   evident:

175   It wasn't until the software [online resource] we used that I realised how much more that
176   was out there that you had to make reasonable adjustments for. So again, the software did
177   open my eyes a bit more to stuff that I haven't yet dealt with, but I may come across
178   (Participant A).
179
180   It did open my eyes to what it could mean in terms of physical disabilities, maybe
181   meaning you would have to think about how you would do classroom activities or
182   outdoor activities to make sure that they [pupils with SEND] are included. So I think it

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

185

186 Recent UK governmental policy has endeavored to capture and convey the complexity of the

187 needs of pupils with SEND in the way that needs are typified related to (1) communicating and

188 interacting; (2) cognition and learning; (3) social, emotional, and mental health difficulties; and

189 (4) sensory and/or physical needs (DfE/DoH, 2015). However, it must be noted that pupil needs

190 and capabilities are dynamic and ever changing, rather than rigid and fixed, so cannot be

191 compartmentalized into categories of convenience. Whilst recognizing that 'categories' of SEND

192 are perhaps an effective way of knowledge transmission, in the same mechanistic way in which

193 Teachers' Standards are promulgated, it is paramount that teachers recognize that pupils with

194 SEND are not a homogenous group and reasonable adjustments should be made according, as

195 always, to individual need. For Participants A and B, the resource was deemed to have impact

196 because it broadened their knowledge and understanding of the scope and complexity of pupil

197 needs and how these needs can be met through making reasonable adjustments.

198 *Previous experience*

199 Participant J suggested that the impact of the online resource was reduced because they had four

200 years' experience working with pupils with SEND as a teaching assistant. When asked if the

201 online resource had influenced their understanding of reasonable adjustments, they replied: 'Not

202 really, because I did it already in my school for the past four years. I think that if I hadn't done it

203 for them for four years, then it would have helped me a little bit. But because I've already done

204 it, I already knew most of it' (Participant J). Participant D was another who had previous

205 experience of working with pupils with SEND: 'I have experienced working with disabled young

206 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

277   to Participant I, the online resource 'changed how I look at assessment'. For them, it was

278   important that all pupils are 'measured against the same grading system, but it might be tweaked

279   or changed to make it personal for an individual' (Participant I). Conversely, Participant A was

280   quite critical of the 'one-size-fits-all assessment for GCSE [General Certificate of Secondary

281   Education] students' by arguing that you have to be able to make adjustments to assessments

282   'otherwise, you are not going to get an across-the-board assessment of how people [pupils] have

283   progressed'. Unfortunately, it is beyond the scope of this article to explore the appropriateness of

284   standardized GCSE assessments for pupils with SEND (see Salvia et al., 2013). Nonetheless, it is

285   worth remembering that there is a legal duty for teachers to use appropriate assessment to set

286   targets which are deliberately ambitious and ensure the progress of all pupils, including those

287   with SEND (DfE/DoH, 2015). Participant C explained how, based on what they had learned

288   from the online resource, they made reasonable adjustments as part of their assessment

289   strategies: 'there are adjustments for abilities and then obviously a student might be given a

290   scribe or a reader so there is an adjustment for the exam. Yes, that is it, isn't it, a reader or a

291   scribe'. Participant E is another who gave specific examples of the reasonable adjustments they

292   now make as a result of the online resource: 'If it was a child with autism, where they sit in the

293   classroom is important; who they sit with is important. Children who are dyslexic, making sure

294   their papers are different'.

295   Whilst Participants C and E focused on the reasonable adjustments made as part of the

296   assessment activities, Participant J emphasized what they learned from the online resource when

297   it comes to ensuring that pupils with SEND are prepared for the assessment:

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

301 labeled so the children know where things are and that the day rooms run smoothly and if
302 there are any changes, that pupils are made aware of it as soon as possible (Participant J).
303
304 *Conclusion*

305 This research evaluated the impact of an online resource on the perceptions of pre-service

306 teachers in making reasonable adjustments for pupils with SEND. From the findings of the

307 research, it appeared that pre-service teachers are a receptive group when it comes to reasonable

308 adjustments, in that they seem committed to understanding the needs and capabilities of pupils

309 with SEND and making adjustments to learning activities and other experiences to ensure that all

310 pupils are equitably challenged to meet their potential.

311 The online resource appeared to increase the knowledge and understanding of some pre-

312 service teachers in relation to the complexity of SEND as a concept and was generally well

313 received as a learning format. This reflects previous international studies that have used

314 technology to successfully support pre-service teachers in special education, perhaps due to its

315 engaging and interesting format (Rayner & Allen, 2013).

316 The impact of the online resource was less noticeable for those who had previous

317 experience of supporting pupils with SEND in schools. This is not necessarily to say that the

318 online resource is not a useful tool for increasing awareness of reasonable adjustments. In fact,

319 the impact was deemed significant by those who had little or no experience of making reasonable

320 adjustments and/or working with pupils with SEND. It is more that some pre-service teachers

321 had already gained this knowledge from previous experiences, whilst others had not. Perhaps the

322 online resource could be differentiated itself with an initial scoping exercise of previous

323 experiences that would then lead to the appropriate signposting based on a teacher trainee's prior

324 experiences of supporting children with SEND. After all, structured 'field' experiences and

325 knowledge of disability are said to increase awareness and positive attitudes to teaching pupils

326 with SEND (Campbell et al., 2003). It would be interesting to know what, if any, impact the

327 online resource would have on serving teachers, given that most, if not all, should have some

328 experience of teaching pupils with SEND.

329   When it comes to teaching and learning, the online resource was found to have had a

330 positive impact on the planning and assessment strategies of pre-service teachers. Making

331 reasonable adjustments at the planning stage will, arguably, ensure that a well-structured lesson

332 and engaging curriculum are delivered to all pupils, including those with SEND..

333   What is not yet known is how committed to making reasonable adjustments other key

334 stakeholders are. Future research will need to analyze the extent to which senior managers in

335 schools, SENCOs, and LSAs, to name a few, are committed to making reasonable adjustments.

336 There are many involved in the educational experiences of pupils with SEND, and the extent to

337 which they are committed or opposed to making reasonable adjustments will influence, by

338 degrees, whether or not pupils experience disadvantage.

339   The evaluation of the resource over a sustained period of time is crucial in understanding

340 whether pre-service teachers entering the profession are given the expressive freedom (Elias,

341 1978) to make reasonable adjustments by those who are part of their schools, such as senior

342 managers, fellow teachers, support assistants, and pupils. This is particularly important when

343 considering the 'wash-out' effect (Zeichner, 1986) that newly qualified teachers might

344 experience as they become socialized into their new institutions, with the potential for ideals and

345 practices developed at university being superseded by their new culture.

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447 **Table**