

1 **A social relational analysis of an impairment-specific mode of disability coach education**

2 Robert C. Townsend^a, Christopher J. Cushion^b & Brett Smith^c

3 ^aPeter Harrison Centre for Disability Sport, National Centre for Sport & Exercise Medicine,
4 Loughborough University, Loughborough, UK.

5 ^bSchool of Sport, Exercise and Health Sciences, Loughborough University, Loughborough,
6 UK.

7 ^cSchool of Sport, Exercise and Rehabilitation Sciences, University of Birmingham,
8 Edgbaston, Birmingham, UK.

9 Corresponding author: Robert Townsend, Peter Harrison Centre for Disability Sport, National
10 Centre for Sport & Exercise Medicine, Loughborough University, Loughborough, UK, LE11
11 3TU.

12 R.townsend@lboro.ac.uk

13

14

15

16

17

18

19

20

21 **Abstract**

22 The purpose of this research was to analyse a mode of coach education provided by a major
23 disability charity. The course was designed for sports coaches and physical activity
24 professionals and focused on coaching people with autism spectrum disorders (ASD). The
25 subsequent analysis drew on data obtained over two years, including participation
26 observation, qualitative survey data and follow-up case study interviews. The research
27 process was scaffolded by a level-model approach (cf. Coldwell & Simkins, 2011). Data were
28 analysed in an iterative fashion to generate themes representative of the process of coach
29 learning in relation to discourses about disability. Subsequently generating an understanding
30 of the impact of disability coach education on coaches' knowledge. To provide a level of
31 abstraction and critical explanation we drew on the work of Thomas (1999, 2007) and
32 engaged with a social relational model of disability to analyse the formation and expression
33 of coaching knowledge in relation to ASD. The analysis highlighted how coach education
34 was an environment for the transmission of ideology about disability, that drew on medical
35 model discourses and constrained coach learning, contributing to a 'false' ideology of
36 inclusion.

37 Keywords: coach learning; coach education; coach development; disability; impairment.

38

39

40 **Introduction**

41 Coach learning is fundamental to the development of high quality coaching (Stodter &
42 Cushion, 2017; Nash, Sproule & Horton, 2016), and the structures that comprise effective
43 education and developmental pathways for coaches have increasingly become scrutinised in
44 coaching research (e.g. Lemyre, Trudel & Durand-Bush, 2007; Leduc, Culver & Werthner,
45 2012). As a well-defined and specific context, disability sport provides a lens to challenge
46 and extend our understanding of coach learning. Thirty years ago, DePauw (1986) argued
47 that a research priority within disability sport was to understand the learning and
48 development of coaches. Disappointingly formal coach education in disability sport remains
49 under-researched despite worthwhile attempts to explain coach learning (e.g. McMaster,
50 Culver & Werthner, 2012; Fairhurst, Bloom & Harvey, 2017; Taylor, Werthner & Culver,
51 2014), categorise sources of knowledge (e.g. Cregan, Bloom & Reid, 2007; MacDonald,
52 Beck, Erickson & Côté, 2015) and understand the use of discrete learning practices (e.g.
53 Taylor, Werthner, Culver & Callary, 2015).

54 Whilst coach education is a crucial feature of coach development, coaches are
55 generally not trained in the specific circumstances of many disability contexts (Bush & Silk,
56 2012; Tawse, Sabiston, Bloom & Reid, 2012). More often than not disability coach education
57 provision tends to occupy a separate and distinct ‘space’ from ‘mainstream’ coach education
58 (Bush & Silk, 2012) reflecting the “highly fragmented” nature of disability sport (Thomas &
59 Guett, 2014, p. 390). This means that the ongoing professionalization of the disability
60 coaching pathway is left without the necessary coach education structures and coaches face a
61 lack of structured, disability specific coach education opportunities (McMaster *et al.*, 2012;
62 Taylor *et al.*, 2014). This results in disability coaching knowledge and practices being derived
63 from informal and non-formal sources (Lemyre *et al.*, 2007). A concerning situation, as
64 coaches are left to self-medicate by taking knowledge generated outside of disability contexts

65 and grounding their understanding in material and experiential conditions in disability sport
66 through a self-referential process of ‘trial and error’ (Taylor *et al.*, 2014). Taken together, the
67 literature demonstrates a trend of continuity rather than change with regard to the process of
68 coach learning, inclusive of coach education, development and knowledge (cf. Brown, 2005).
69 This can be problematic, as a lack of professional training and knowledge can act as a barrier
70 to inclusion, hence reproducing the very structures that can limit disabled people (Oliver,
71 1996). For example, people with autism spectrum disorders (ASD) are one of the most
72 inactive populations (Rosso, 2016), and a significant barrier to inclusion is that coaches lack
73 access to specialised support and knowledge (Rosso, 2016; McMaster *et al.*, 2012). Therefore,
74 research on disability coach education is timely, as, Ohrberg (2013) argued, high-quality
75 training and education for coaches is “the essential component” (p. 54) in creating an
76 ‘inclusive’ coaching workforce.

77 Understanding coach development and learning in disability coaching remains an
78 ongoing concern (DePauw, 1986). Yet the degree to which learning and knowledge are
79 considered in critical detail is often overly reliant on the coach as a unit of analysis (e.g.
80 Taylor *et al.*, 2015) and the broader social structures and educational pathways that contribute
81 to coaches’ knowledge production are overlooked. Furthermore, delineating ‘learning’
82 according to categories of formality (e.g. McMaster *et al.*, 2012) or identifying coaches’
83 learning ‘sources’ (e.g. McDonald *et al.*, 2015) reveals little about how and why these
84 particular situations are utilised, and neglects not only the micro practices within coach
85 development but the broader macro structures that shape coaching knowledge. Hence, a
86 consideration of the socially constructed nature of ‘disability’ (Thomas, 1999, 2004a), its
87 ideological expression within educational structures, and the variations within coaching
88 contexts that direct the process of learning are missed.

89 The approach to understanding coach learning in a more detailed way is reflected in
90 the choices of methodology utilised to examine learning. Coach education in disability sport
91 has not been subject to sustained and in-depth scrutiny or how it potentially can contribute (or
92 not) to coach learning. The existing work tends to rest on ‘snapshot’ methodologies,
93 characterised by ‘drive-by’ interviews (Smith & Sparkes, 2016) that capture only a partial
94 aspect of the coaches’ learning process and assume a realist position on understanding ‘truth’
95 and knowledge (e.g. McMaster *et al.*, 2012; Taylor *et al.*, 2015). Consequently, the evidence
96 base on which to develop disability-specific education structures is weak at best. In turn,
97 connecting with disability discourses highlights the direct impact that cultural messages and
98 meanings about disability have on the learning processes of coaches. As Stodter and Cushion
99 (2017) argue, in addressing coach learning, attention should be widened to examine cultural,
100 social and individual structures in coaching.

101 **Theoretical Framework**

102 As Townsend, Smith and Cushion (2016) discussed, much of the work in disability coaching
103 deliberately distances itself from conversations about impairment (e.g. McMaster *et al.*, 2012;
104 Tawse *et al.*, 2012). This silencing of disability is substantiated by an assumption that to
105 coach in disability sport is simply the application of able-bodied and mainstream coaching
106 principles against an environment with more ‘constraints’ than usual and coaches are
107 encouraged to coach the ‘athlete’, not the ‘disability’. There are serious limitations to this
108 approach. The impairment(s) that an athlete presents has a *direct* and important influence on
109 coaches, as recent research has shown how the combination of impairment effects and social
110 and systemic factors shape the knowledge of coaches (Wareham *et al.*, 2017). In addition,
111 such a normalising view fails to acknowledge the possibility of coaching knowledge being

112 socially constructed as it assumes a transfer of generic coaching principles across contexts,
113 which can reproduce disablism¹ (Thomas, 2007) within disability sport.

114 In response to calls to widen the disciplinary boundaries of coaching (e.g. Townsend
115 *et al.*, 2016), researchers can connect with critical disability studies and employ the social
116 relational model (cf. Thomas, 1999) as an explanatory and analytical device. This model
117 centralises impairment and distinguishes between personal experiences of restrictions due to
118 the effects of impairment in a social setting, on the one hand, but also the *imposed social*
119 *restrictions* in social settings, on the other hand (Reindal, 2008). This model focuses on the
120 social relationships that constitute ‘disability’ (Thomas, 1999) and the various social
121 mechanisms by which people with impairments can be oppressed, ‘othered’, disabled and
122 indeed enabled within sporting contexts. The focus of the social relational model therefore is
123 on the social construction of disability in different contexts and relationships, and its use
124 helps to analyse the production of knowledge about disability within micro-contexts. Using a
125 social relational model in coaching is likewise useful as it highlights the dominant discourses
126 and practices about disability – subsequently producing knowledge - in coaching. The model
127 enables researchers to analyse the understandings of disability at individual, social and
128 cultural levels (Thomas, 2004a) of coach education. Therefore, the importance of the social
129 relational model for researching coach education lies in its potential to expand how disability
130 is positioned, understood and translated in the formation and expression of coaching
131 knowledge (Townsend *et al.*, 2016). This is a significant theoretical step, as there is a
132 growing consensus that understanding coach learning cannot be achieved by pursuing
133 singular lines of thought.

134 **Aims and Purpose**

¹Disablism refers to the social beliefs and practices that oppress, exclude and disadvantage people with impairments (Thomas, 2007).

135 The aim of the paper was to provide an in-depth analysis of disability coach education,
136 specifically focusing on an impairment-specific CPD programme. The purpose was to
137 provide evidence of the impact of impairment-specific coach education on coach learning,
138 thereby addressing an area of the coach development pathway in disability sport that has been
139 left unexplored. The significance lies in expanding the scope and evidence for coach learning
140 and education in disability sport to contribute to an emerging discourse of coach learning that
141 is grounded in critical disability studies. In so doing, we aimed to understand the ways in
142 which ‘disability’ was positioned within coach education, and its effects in the translation,
143 formation and expression of coaches’ knowledge.

144 **Methodology**

145 *Context*

146 This study investigated a mode of coach education that focused on autism spectrum disorders
147 (ASD). Autism is a lifelong, complex neurodevelopmental disorder that affects the way that
148 people perceive and understand the world around them. ASD are characterised by what is
149 commonly known as a triad of impairments (Rosso, 2016) in social communication and
150 social interaction across multiple contexts (American Psychiatric Association [APA], 2013),
151 ‘deficits’ in social-emotional reciprocity, nonverbal communicative behaviours and
152 difficulties in understanding, developing and maintaining relationships (APA, 2013).

153 Developed by a leading charity for people with ASD, the course aimed to improve the
154 sporting experiences of people with ASD by delivering a series of workshops to coaches,
155 sport and physical activity professionals. In so doing, the initiative aimed to increase the
156 confidence and skills of participants in the hope that creating inclusive sporting environments
157 would improve the levels of participation of people with ASD, and subsequently their self-
158 esteem and well-being. While identified as coach education, the course attracted participants

159 from a variety of roles, sports and contexts, for example sports coaches, physical education
160 teachers (both mainstream and special educational needs), teaching and learning assistants,
161 coach education tutors, and physical activity instructors. The course was a ‘one-off’ training
162 episode², that was taught using group discussion, didactic methods, and practical exercises.
163 Due to its precise focus on ASD, the course can be further conceptualised as an ‘impairment-
164 specific’ mode of coach education CPD.

165 *Procedure*

166 This research was underpinned by social constructionism. Ontologically, social
167 constructionism adopts a relativist position, in which the focus was on *constructed* rather than
168 *found* worlds (Lather, 2004). Epistemologically, social constructionism positions knowledge
169 as the product of social practices, or of the interactions and negotiations between social
170 groups (Lather, 2004) within a particular culture.

171 The research design and data collection was scaffolded by a level model approach to
172 evaluating CPD (cf. Coldwell & Simkins, 2011). The strength of a level model approach, and
173 why it was adopted, is that it takes into consideration both individual dispositions towards
174 learning, and the wider socio-cultural context (various antecedent and moderating factors)
175 that impacts on the process of professional learning. The model, according to Coldwell &
176 Simkins (2011) is underpinned by ontological relativism, within which “knowledge of the
177 social world can only be constructed from the perspectives of individuals within it” (which
178 may legitimately differ) (Coldwell & Simkins, 2011, p. 152) which sits within the social
179 constructionist tradition. Thus, the connection of a social constructionist epistemology to the
180 level model allowed for analysis of the mechanisms through which learning occurred within

² The structure of the course varied, with the organisation offering a one-day format, an extended two-day format, half-day formats, or three-hour ‘awareness building’ sessions. Participants were not required to undergo any formal assessments upon completion of the course.

181 social structures and specific contexts (Coldwell & Simkins, 2011), by focusing enquiry on
182 interactions, processes, and social practices within coach education. Such a combined
183 approach viewed learner, context and learning as inter-related, and the experience of coach
184 education CPD as constructed (Coldwell & Simkins, 2011). As a result, a multi-method
185 approach was required. The specific methods are outlined below in relation to the
186 corresponding variables.

- 187 • *Interventions*: the programme design and associated activities.

188 The lead author followed the extended delivery of the course over two years as a participant
189 observer on ten interventions (including two-day, one-day and half-day [3hr] introductory
190 formats) resulting in extensive field notes and over thirty-two hours of audio data. The *in-situ*
191 observation of courses highlighted the contextual role of the local settings and the recursive
192 flows of events in order to build a contextualised ‘big picture’ of this mode of coach
193 education.

- 194 • *Antecedents*: the factors associated with individual participants’ engagement with the
195 programme, and that precede their reactions to the course.

196 Qualitative survey ‘reflectionnaires³’ (n=278) were built into the course pre- and post-
197 delivery. The use of this method allowed for the generation of insights from a large number
198 of participants within a specific case. The pre-course survey functioned as a means of
199 understanding the participants’ motivations for and expectations of attending the course.

- 200 • *Moderating factors*: variables or conditions from the wider coaching context.

³The qualitative reflections were drawn from the level-model evaluation in order to help coaches reflect on their time on the course and stimulate critical thinking about the knowledge and skills they developed. These data are represented as “coach reflections”.

201 Ten coaches were sampled to participate in follow-up interviews to enable detailed
202 exploration and understanding of the moderating factors associated with the impact of the
203 course within a particular context (cf. Richie, Lewis & Elam, 2003; Leduc *et al.*, 2012). The
204 purpose was to identify coaches who worked in a sustained capacity with people with ASD to
205 understand what may enable or constrain the use of knowledge gained on the course. In
206 addition, two interviews were conducted with the course tutor, one at the start of the research
207 process and again during the final phase of the research. The semi-structured nature of the
208 interviews allowed for a flexible approach to data collection whereby I was able to explore
209 the experiences of the participants and engage in a dialogical process towards the co-
210 construction of knowledge (Sparkes & Smith, 2014).

211 ▪ *Intermediate outcomes*: perceived changes in participant learning and behaviour.

212 The post-course qualitative survey (n= 278) functioned as a means of gathering participants’
213 perceptions of changes in their knowledge. In the survey, participants were asked how their
214 understanding of ASD had developed as a result of attendance, and relatedly how their
215 understanding of coaching had changed.

216 • *Final outcomes*: the wider intended effects of the course on participants.

217 The combination of these methods within a longitudinal research design allowed not only for
218 a descriptive understanding of the process of course, but also for a detailed understanding of
219 the impact of the course on participants. This multi-method approach enabled a greater depth
220 and breadth of data to be obtained than one method alone could provide.

221 ****Insert Fig. 1 here****

222 *Analysis*

223 Data analysis followed an iterative process of continuous meaning-making and progressive
224 focusing (Srivastava & Hopwood, 2009). The raw data from observational, interview and
225 fieldwork data were analysed to generate themes that represented the structure, process and
226 delivery of the programme and the participants' perceptions of the impact on their knowledge.
227 For example, first-order themes such as 'Participant Expectations and Motivations',
228 'Participant Reactions', 'Participant Learning' and 'Aims, Content and Structure' reflected
229 the most basic level of description (Coldwell & Simkins, 2011). Next the data were reduced
230 according to themes relating to participants' perceived changes in knowledge and the course
231 pedagogy. These higher order themes were organised against the social-relational model in a
232 deductive manner to understand the position of 'disability' within the course. This abstraction
233 resulted in the generation of themes relating to the expression and translation of disability and
234 are discussed in 'Centralising Impairment Knowledge', 'Coaching Knowledge and Autism
235 Awareness', 'Discourse of Problematics' and 'Ideology of Inclusion'.

236 **Results and Discussion**

237 In this section, we draw on the social relational model of disability to explain the findings
238 from a study of disability coach education. First, we discuss the lack of training in the
239 disability sport context, and how coaches' lack of knowledge functioned as a social barrier to
240 inclusion. Second, we highlight a subversive and entrenched medical model of disability and
241 discuss the contribution of medical model discourses to coach learning. Finally, we discuss
242 the pedagogy adopted within the course and how it worked to reproduce these disability
243 discourses.

244 ***Centralising Impairment Knowledge***

245 The literature suggests that understanding an athlete's impairment is central to coaching
246 success in disability sport (Wareham *et al.*, 2017; Tawse *et al.*, 2012). Indeed, while coaches

247 play a significant role in planning, delivering and shaping high quality sporting experiences
248 for people with ASD (Rosso, 2016), a common barrier to disabled peoples' participation in
249 sport and physical activity is a lack of knowledgeable, qualified and 'inclusive' coaches
250 (Wareham *et al.*, 2017; Martin & Whalen, 2014). A common barrier that coaches identified
251 prior to attending the course was the lack of attention given specifically to ASD within their
252 previous coaching education. The tutor explained the need for impairment-specific courses as
253 the position of disability within the coaching field was marginalised, creating a 'gap' to be
254 filled:

255 We started to realise that there's a lot of coach education out there, there's a lot of
256 impairment-specific coach education out there, but little or no coverage of autism. So
257 it was something that we kind of saw an opening in the market in terms of this can
258 help the people that we support. (Tutor - interview).

259 The marginal position of disability within the coaching field represents what Thomas (2004b)
260 described as the political economy of disability. That is, the examination of the position that
261 disability occupied in the social relations of production and consumption (coaching and coach
262 education) revealed how the coaching workforce was largely untrained in the features of
263 working with people with ASD. The lack of disability specific coach education is a
264 longstanding difficulty (Wareham *et al.*, 2017) and marginalising disability within coach
265 education had important implications for coaches, as a number of participants discussed how
266 they operated without any formal ongoing support (McMaster *et al.*, 2012) and had to learn
267 primarily by negotiating 'on the job' constraints:

268 A lot of it has been learning on the job...just do it yeah you just do it...a lot of it is the
269 same judging your players getting to know the people quickly and getting an idea of
270 what people can do. You've just gotta adapt things haven't you. (Coach - interview).

271 Too many coaches are thrown in at the deep end and asked to survive the next
272 experience unscathed. (Coach - reflection).

273 These data illustrate how coaches were left to work with no formal support or education. The
274 situation for the coaches was that they were 'dropped in at the deep end' of disability sport.

275 This means that experience in the field was most commonly responsible for the development
276 of knowledge, as the following data illustrates:

277 I didn't know what to expect - my first day, and I'd been teaching for probably nearly
278 ten years at that point. I set up a really simple course for them to do - which I thought
279 was really simple - and there was twelve of them. They came and sat down with
280 helpers and stuff, introduced myself and told them what we were gonna do. I literally
281 took thirty seconds, turned to say look this is what I've set up, turned back and they'd
282 all run off and I was like what on earth am I going to do? It lasted a good six months
283 going into a lesson being really nervous about what's gonna happen. Even now I've
284 been doing it probably three years it's still quite challenging, you just don't know
285 what you're gonna get. (Coach - field notes).

286 As these data suggest, the lack of informed training and educational resources or support for
287 coaches in the disability sport context acted as a powerful form of structural disablism (cf.
288 Thomas, 2004a; Goodley, 2011) for people with ASD:

289 We were seeing that people with autism want to participate in sport and there's
290 reasons why that's quite difficult for them to do so, so it was something that as an
291 autism charity that's our speciality that we could try and help out with. There was a
292 lack of knowledge with coaches. (Tutor – interview).

293 The lack of previous training and education meant that coaches and physical activity
294 practitioners arrived at the course with knowledge formulated through unstructured
295 experiences in the field that functioned to shape their responses to the course. In terms of
296 coach learning, the following data highlight how the field acted as a cultural resource that
297 shaped certain orientations and dispositions acquired through social practice towards
298 disability. Specifically related to autism, participants drew on negative cultural discourses
299 about people with ASD that influenced their confidence to coach in disability sport:

300 I was daunted when I first took it on (started coaching autistic players) and thought,
301 “How exactly do I do it?” It was just literally the unknown because I didn't know
302 quite what to expect. I felt that I was lacking in the expertise. (Coach - interview).

303 Tell you what; the first sessions are always like the nervous ones aren't they? You just
304 don't know, you go in, you don't know what you're doing. (Coach - interview).

305 Autism is commonly constructed as a “devastating neurodevelopmental disorder” (Goodley
306 & Runswick-Cole, 2012, p. 58) and understandings of autism are often housed in medical

307 terms. These socially constituted meanings about autism were embedded in practice (Thomas,
308 2004b), and when combined with a lack of professional development and support, manifest in
309 a ‘fear of the unknown’ for coaches. Analysis of these data highlights the particular influence
310 of negative cultural discourses about disability, specifically how coaches expressed feelings
311 of nervousness, apprehension and a lack of knowledge about ‘how’ to work with people with
312 ASD which can be conceptualised as a form of psycho-emotional oppression (Thomas,
313 2004a). For example:

314 Around autism there’s this massive grey area that no-one really understands. I don’t
315 think you can always be 100% prepared for everything that you’re going to face.
316 (Coach - interview).

317 I remember feeling like a little bit scared when I [first started]. I wasn’t sure and that
318 was quite profound...there’s so much going on. Sometimes you feel you’re making it
319 up on the spot and half the time you are. I dunno, still feel under pressure sometimes.
320 (Coach - interview).

321 These examples are suggestive of the contemporary structure of the disability sport field, the
322 position of disability within coach education, and the effect of unstructured engagement in
323 coaching practice that together function as a social barrier to inhibit coaching. These data
324 highlight how coaches sought extra training and support due to negative experiences of
325 coaching people with ASD:

326 Basically, I’ve got a lad on my team who has autism and I didn’t have an
327 understanding of it at all. He’s a cracking footballer but basically it was my coaching
328 that was - the meltdowns were down to me. This is just to keep me learning, I’m
329 never gonna be an expert but it’s a massive learning curve. Hopefully this can add to
330 it. (Coach - field notes).

331 My understanding of autism, I would say there’s still some unhealthy gaps in my
332 knowledge and understanding of autism. When the symptoms and behaviours are at
333 their most extreme I think they are massively challenging, there’s a little bit of a
334 fear...how do I manage in that environment with an individual that has the potential
335 to act in what I would perceive as a completely irrational way? (Coach- interview).

336 The function of the course, therefore, was to develop coaches’ knowledge and confidence in
337 order to dispel disabling messages about disability (cf. Thomas, 2004a) that contribute to
338 inequality:

339 One key message, the main key message is that there's nothing to fear when you're
340 when you're working with different groups. To make your sport inclusive is to make
341 it inclusive for everyone, not just for people with autism. I think a massive barrier is
342 coaches' own perception, because I mean when I started coaching I was thrown into a
343 disability club, and I hadn't been given any background to the players, so that's where
344 I can see some coaches might go in and have that fear that something is gonna go
345 wrong because I don't know enough. Another thing might be that they don't know
346 enough about the condition. (Tutor – interview).

347

348 *Coaching Knowledge and Autism 'Awareness'*

349 Across all formats of the course, ASD was discussed in detail - covering the history,
350 aetiology and pathology of the disorder, motor control effects associated with ASD, 'myths
351 and facts' of ASD, and common personal and social effects of ASD that can be restrictive in
352 sporting contexts. The delivery of each course involved tutor-led theoretical work, practical
353 coaching, group work, information sharing and 'reflective' workbook tasks, with the time
354 allocated for the course dictating the depth and breadth of information delivered. The purpose
355 of the course was to attempt to reframe participants' understandings of autism away from
356 negative assumptions about ASD:

357 *The tutor has set a task whereby participants were given the word "autism" and*
358 *asked to discuss their understandings of it. Groups were given five minutes to discuss*
359 *before feeding back to the tutor who collated themes on a whiteboard at the front of*
360 *the classroom. One coach outlines their group discussion:*

361 Participant: We didn't necessarily discuss what autism was we discussed how scary
362 and challenging it can be if you're not prepared. I didn't know what to expect.

363 Tutor: I'm glad you said that. One of the main reasons for us developing this and -
364 autism and sport is something I'm passionate about personally anyway but one of the
365 things that we find is that there's a massive fear factor. Through no fault of their own
366 it's just that they don't have an understanding or an awareness of how it presents. You
367 can still coach, if you're a coach you're a coach.

368 (Field notes).

369 Coach education that is underpinned by social model discourses are rare (Bush & Silk, 2012).

370 Such discourses focus attention away from the effects of impairment and enable reflection on

371 individual attitudes, practices and the social context (Townsend *et al.*, 2016). The tutor

372 explained how she tried to focus coaches' discussions toward helping coaches to identify and
373 remove the barriers in sport that people with ASD may face (Townsend *et al.*, 2016):

374 I'd like to think that coaches start looking at themselves rather than looking at it
375 (coaching) from a medical point of view, and I do think although there is a lot of
376 medical content in there (the course) because we go into what autism is - but I'd like
377 to think coaches are gonna come out of it more from the social side of it thinking right
378 maybe we need to change our practice or maybe we need to change the way that we
379 deliver our sessions. (Tutor - interview).

380 However, such discussions were not straightforward, with participants exhibiting strong
381 medical model assumptions that positioned autism as the main barrier to participation in sport
382 (cf. Thomas, 1999). An example below typifies the tutor – participant interactions during
383 discussions about ASD on course:

384 Tutor: To gain an increased understanding we're gonna look at some key areas of
385 differences, or common differences experienced by people along the spectrum and
386 we're gonna look at how they impact on participation. The next thing I'm going to do
387 I'm just gonna give you the word 'autism' – what comes to mind when you hear the
388 word 'autism'?

389 Potential differences in communication.

390 Sensory processing is quite a big one for some of them.

391 Tutor: Yep, we'll take that into the practical as well.

392 Coping with change is a big one.

393 Just inflexibility of thought.

394 Tutor: so, struggling with potentially understanding teammates or understanding
395 reasons that something is happening, we'll look at that in a lot more detail in terms of
396 some strategies and what potential difficulties our participants are having.

397 They don't like change and everything has got to be structured, and if it's not and
398 things are changed then, if you change a session then the mood will change within the
399 group, so you set out what you're gonna do – the structure is this, if you change that
400 structure it throws them completely.

401 Another word I'd throw in is irrational. Sometimes their reaction to that change to
402 some kind of stimulus that you put into the session can be completely irrational to your
403 mind.

404 Tutor: when we throw the word 'autism' out, we tend to get a lot of negatives, about
405 difficult behaviour, challenging behaviour.

406 (Field notes).

407 These data illustrate the complexity of deconstructing participants' understandings of
408 disability within sporting environments. Participants expressed understandings that aligned
409 with an entrenched medical model of disability conflating the personal and developmental
410 impairments associated with ASD (Ohrberg, 2013) as the main cause of disability in sport.
411 However, as we have shown, an important social barrier to inclusion is a lack of
412 knowledgeable, qualified and 'inclusive' coaches (Wareham *et al.*, 2017; Martin & Whalen,
413 2014). Thus, the course attempted to help participants gain an increased 'awareness' of the
414 features of ASD, which was an important motivating factor for attendance:

415 I'd never studied the autistic spectrum. From experience whilst I had a good overall
416 picture, it (the course) was just colouring it in if you like, it was just making it that bit
417 clearer to me and helping me to understand more about the condition and about
418 individuals that I worked with. (Coach - reflection).

419 I wanted to know more about the condition, I think a good coach should know about
420 the disability and it was something I didn't know a lot about. (Coach - reflection).

421 Awareness-raising practices are important in addressing social barriers that are imposed on
422 top of the restrictions caused by impairment effects (Thomas, 2007). By developing a greater
423 awareness of ASD the coaches were encouraged to consider the actual needs of the individual
424 whilst considering inclusivity and the removal of social barriers that may prevent an
425 individual from otherwise participating within sport (Reindal, 2008). For the coaches, the
426 value of developing a greater understanding of ASD was that they gained a greater awareness
427 of appropriate behavioural responses to disabled people in the coaching context. To this end,
428 the course presented common tendencies, case studies and 'myths and facts' about ASD as an
429 awareness-raising practice. Such practices were important as coaches were encouraged to
430 consider the actual needs of the individual whilst considering inclusivity and the removal of
431 social barriers (Reindal, 2008).

432 *The tutor is addressing the participants, and is about to discuss content related to the*
433 *characteristics of autism by introducing four hypothetical scenarios in which*
434 *characters with autism display different tendencies and coaches are asked how they*

435 *would potentially include them in their individual sessions. This is considered an*
436 *important reflective function.*

437 Tutor: There's a massive awareness of autism now, but there's no point having that
438 awareness if it doesn't turn into understanding, we'll continue to talk about that
439 throughout the session.

440 (Field notes).

441 As a result of such awareness initiatives, participants expressed a greater awareness of the
442 characteristics of autism, and how it may present in sporting contexts:

443 I was never too aware of signs of autism. Now I have a better understanding. There
444 are different ways to deal with autism depending on the person and this will help them
445 to learn easier. Knowing what to look for helps massively (Coach - reflection).

446 They reinforced a lot of what I was doing was good, but things like I didn't realise
447 until I went on the course that things like the rocking were a comfort trigger and that
448 various triggers can set people off. Things like having a pair of ear protectors on hand
449 for those that don't like loud noises. I would say the key things that I've learned are
450 structure because autistic players like structure. (Coach - reflection)

451 Whilst the analysis of data highlights how the course attempted to facilitate a critical
452 dialogue, it also suggests that 'awareness' was built on largely medicalised understandings
453 relating to the social and behavioural impairments associated with ASD (e.g., low motivation,
454 poor motor functioning, difficulties in self-monitoring, socialising, planning and
455 generalisation (Rosso, 2016). Therefore, despite the well-intentioned effects of social model
456 discourses, coaches began to construct understandings of ASD that were largely based on
457 their dominant but implicit medical model discourses. While at a rhetorical level, the course
458 seemingly reflected a social model perspective on disability, there was a powerful and
459 entrenched medical model that had 'real' effects in the translation, expression and formation
460 of coaching knowledge. Because medical model discourses locate impairment as the cause of
461 disability, the person with impairment is positioned as a 'problem' to overcome in coaching.

462 Where mainstream coach education fails to expose and deconstruct the dilemmas that
463 practitioners in disability sport face, coaches without any specific training can understandably
464 feel compromised, unprepared and inadequate to engage in coaching in disability contexts (cf.

465 Robinson, 2017). The effects of the entrenched medical model meant that coaches lacked the
466 skills, knowledge and confidence () to work with people with ASD:

467 Participant: I think people are afraid of things they don't know, and I think when
468 coaches do come to this I don't think they'll be any better at coaching but they will
469 have the confidence – they will feel better about having a go. You become good at
470 something by doing it often and over a period of time.

471 Tutor: I think there's a bit too much focus on the perceived barriers because a lot of
472 the barriers we spoke about are not massive things to overcome and in some cases the
473 barriers might be for the coaches rather than for the participants. One barrier to
474 participation is that coaches aren't willing to give it a go which is the one thing that
475 training sessions like this is hoping to improve.

476 (Field notes).

477 The course, therefore attempted to develop coaches' confidence by identifying characteristics
478 of disability and promoting 'best practices' for intervention (cf. Rice, 2006). As a result, the
479 practice of coaching was wrapped up in a technicist discourse whereby coaches were asked to
480 develop and implement coaching 'strategies' that were aimed at making sessions more
481 'inclusive' for people with ASD. On each course coaches were exposed to a number of
482 different types of 'inclusive' coaching equipment and 'strategies' that it was suggested would
483 enhance the experience of people with ASD through individualised support:

484 Throughout the day we'll touch on some of the strategies and in the practical, that's
485 when we'll have a bit of time to put them into practice. (Tutor - field notes).

486 These 'strategies' included a number of autism-specific practices and codified forms of
487 knowledge, such as the use of social stories, PECS⁴ and visual timetables to help structure
488 coaching sessions, specialised equipment (e.g. noise cancelling earphones or sensory toys) to
489 stimulate people with ASD or the implementation of 'safe spaces' when athletes displayed
490 behaviours of concern. A practical focus was useful in helping coaches consider critically
491 their coaching environment (cf. Kean *et al.*, 2017). But an interesting form of dissonance

⁴ Picture Exchange Communication System. PECS is an alternative communication intervention package for individuals with autism spectrum disorder and related developmental disabilities.

492 occurred whereby the tutor emphasised the individual nature of ASD throughout the training
493 but the pedagogy implemented attempted to provide standardised practical solutions for
494 coaches to ‘cherry pick’ and apply to specific contexts:

495 One of the beautiful things about autism is that it’s so different, but it’s also
496 frustrating it makes my job hard because when I come here and there are questions
497 there’s no one-size-fits-all there’s not one thing I’m gonna say that’s gonna make that
498 easier or that is gonna solve that problem. Hopefully one of the things you’re gonna
499 get out of today especially in the practical when we go to do some of the scenario-
500 based learning is some strategies and maybe even some reasons why these behaviours
501 are presenting. (Tutor - field notes).

502 Through the adoption and replication of certain coaching strategies, participants expressed a
503 sense of confidence and efficacy in working with people with ASD in sporting contexts. Data
504 from participant reflections and field note data routinely described how an increased
505 awareness would help coaches to “deal with” ASD through the adoption and use of different
506 coaching ‘strategies’ as behavioural responses to impairment effects (Thomas, 1999):

507 (The course) gave me a better insight into how to coach and deal with autistic people.
508 (I have a) better understanding of techniques to manage various behavioural issues.
509 (Coach - reflection).

510 These data are a strong illustration of the practical logic that drives disability coaching, with
511 the focus on ‘confidence’ strengthening divisive constructions between bodies, thereby
512 legitimating prescriptions for ‘effective’ instruction (Rice, 2006; Jones & Wallace, 2005). But,
513 the analysis suggests that by offering ‘strategies’ to coaches, coaching knowledge was
514 characterised by an interventionist focus, that is, person-fixing not context-changing (cf.
515 Goodley, 2011), or critically reflective. By centralising impairment knowledge in this form of
516 training, the coaches, tutor and the course functioned to construct cultural boundaries
517 between coaches and disabled people. The medical model provided a set of coherent
518 techniques to inform practice, and coaches were taught to recognise generalised ‘problems’
519 under a lexicon of inclusion. At a discursive level coaches were asked to ‘reflect’ on their
520 practices but the pedagogical strategy instead centralised impairment as a ‘problem’ and

521 offered prescriptive strategies for coaches – hence reinforcing rather than challenging a
522 medical model approach, and therefore the dominant paradigm informing this particular case
523 study of coach education was the medical model.

524 ***Discourse of ‘Problematics’ and Ideology of Inclusion***

525 Something that I’ll rabbit on about all day is individuality. So, celebrating that
526 individuality. I know that makes our jobs more difficult as coaches, but it’s also
527 something to be celebrated. (Tutor - field notes).

528 The structure of the course, while varied in length, followed a ‘theory-practice split’⁵ that was
529 assumed to hold real value in impacting on coaches’ knowledge:

530 Coaches need the practical side, they need that hands-on experience. One thing I
531 stress at the start of the day you’ll still have to learn on - I had to learn as I went, learn
532 from the participants. (Tutor- interview).

533 During the practical part of the course coaches were asked to plan coaching drills and games
534 according to different intervention frameworks (e.g. SPELL and STEP)⁶ against different
535 scenarios where ‘autistic behaviours’ were presented as disruptive to a coaching session and
536 to deliver them to their peers.

537 As I’ve said we’re gonna look at some of the strategies and as we go into the practical
538 this afternoon we’ll start to do a little bit of scenario-based learning in a bit of a safe
539 environment we can start to implement some of these strategies. (Tutor - field notes).

540 Although it is widely agreed that coaches learn through coaching experience, the peer-to-peer
541 coaching adopted on course was unreflective of many coaching dilemmas that practitioners
542 faced, presenting coaches with largely de-contextualised situations:

543 I think you have to be coaching to really get just how much has to go into the sessions
544 and how you have to adapt your sessions to suit all your different disabilities. I don’t
545 think courses can actually give you that because until you’re actually with the

⁵ All formats except for the 3- hour ‘awareness building’ course incorporated practical learning.

⁶ SPELL is a framework for understanding and responding to the needs of children and adults on the autism spectrum. It focuses on five principles that have been identified as vital elements of best practice in autism, and emphasises ways to change the environment and approaches to meet the specific needs of each person. SPELL stands for Structure, Positive (approaches and expectations), Empathy, Low arousal, Links. STEP is a practical coaching scaffold that refers to Space, Task, Equipment and People.

546 different spectrums of disabilities you don't know what to expect from each
547 individual. (Coach – interview).

548 As Jones and Wallace (2005) argued, no comprehensive framework currently exists that
549 represents the complex reality within which all coaches work. This is also the case within
550 disability sport, with relatively little evidence illustrative of the coaching context and the
551 nature of coaches' work. Below is an example of the scenarios coaches had to plan for:

552 *The tutor is addressing the cohort during a practical 'warm up' as if they were*
553 *participants with ASD and is explaining her practice:*

554 I don't know if you noticed but I was watching all your movements while you were
555 doing it, that way I can see how you're gonna cope with that activity for the warm up.
556 If I see that you're struggling with that I'll probably adapt, if someone has a problem
557 and they're all over the place it might cause problems, quite a tight space in here, but
558 by asking you to do that first I can sense how you're gonna cope with that

559 How did we cope with that?

560 Tutor: You coped very well, well done (Laughter) One other thing is I've kept the
561 equipment in squared areas (*away from the group*), I would even move you further
562 away from it so the equipment was behind you so people weren't thinking 'oh we're
563 gonna play with the ball soon, we're gonna play with the ball soon' rather than
564 listening to the instructions.

565 If I was coaching in here with some autistic kids, they'd be up and gone, upstairs, how
566 would you control a group?

567 The amount of times I've seen kids kicking windows, doors.

568 Tutor: there's a lot going on a lot of distracting stimuli. I'd probably try and work out
569 what's the most distracting stimuli and keep you away from that.

570 *The group splits into groups to plan and deliver activities*

571 Tutor: You are to plan an activity which involves scoring points. One participant is on
572 the autism spectrum and tends to be in a state of high arousal most of the time. They
573 don't enjoy team environments or big groups. They struggle to process a lot of
574 information at once and may run away from the session if they feel overloaded or
575 anxious. They like rules to be in place and to be followed by all.

576 (Field notes).

577 In the scenario-based learning the coaching focus was on disability-specific 'facts' that
578 provided sequence and direction. However, the medical discourses that framed disability
579 focused attention on the participant, and not the coaches' competency, positioning ASD as

580 the main barrier to full participation. This had a number of unintended and oppressive
581 consequences.

582 First, the course was permeated by a discourse of ‘problematics’, characterised by a
583 tendency to pathologise the impairment by focusing on the behaviours of people with ASD as
584 ‘issues’ to be overcome through standardised coaching practices. This resulted in instances of
585 stereotypical, stigmatic and generalising assumptions about ASD expressed by participants
586 that constituted a ‘false’ coaching consciousness. For instance:

587 (I have) more knowledge on what an autistic child or adult is thinking or how they
588 feel. How an autistic person feels and when they say something then that is exactly
589 how they are feeling (Coach - reflection).

590 When talking to a person with autism I have to make sure I don’t make any eye
591 contact with them even when speaking to them (Coach - reflection).

592 Autistic individuals hate noise; some don't like change, and take instructions literally
593 (Coach - reflection).

594 As a result of the pedagogical conditions, coaches formed abstract, generalised and reductive
595 conclusions about people with ASD. The development of coaching knowledge was based on
596 prescriptive approaches that homogenised the nature of impairment – an approach that is akin
597 to ‘indoctrination’ (Nelson, Cushion & Potrac, 2006). Furthermore, analysis of field note data
598 highlighted how, during the peer-to-peer coaching, participants would ‘act’ autistic to
599 replicate the demands of coaching people with ASD. Coaches would ‘take on the role’ of the
600 autistic participant; mimicking perceived autistic behaviours, being verbally disruptive, over-
601 exaggerating hyperactive behaviours, and in one case physically abusive to other participants.
602 These practices were considered to have an important pedagogic function:

603 It was up to the initiative of some coaches to role play during the practical session
604 which highlighted the core elements of communication with autistic people. (Coach -
605 reflection).

606 Coaching was therefore ‘learned’ according to discursively formed ideological
607 understandings of what ASD ‘looks like’ in practice highlighting the “key features of the
608 landscape of social exclusion” (Thomas, 2004b, p. 34) in coaching:

609 I maybe did it a couple of times (laughs) just looking back I deliberately just took
610 everything they said - just to wind them up - literally...just to be awkward (laughs)
611 because I’ve seen it myself. (Coach - interview).

612 The consequences of the ‘inclusive’ messages, uniform coaching strategies and the
613 pedagogical conditions on the course meant that participants expressed understandings of
614 ASD that contradicted the conceptual aims of the programme. Importantly, whilst the tutor
615 was not supportive of these discriminatory practices, she suggested it created a ‘realistic’
616 coaching scenario to learn from:

617 I did expect it. I gave them the scenario and they took it upon themselves, I’m not
618 gonna stop them from doing that because the other participants *learn quite well from*
619 *it*, but it is a dangerous thing to do because we spent quite a lot of time talking about
620 the stereotypes and the coaches were sat there shaking their heads in disbelief and
621 then when we went on to do the scenario...they were acting out the stereotype so I
622 think it highlights that the stereotypes are there, but we just need to be careful that
623 we’re not tarnishing autism...that’s not accurate (Tutor - interview).

624 Accordingly, whilst the pedagogy produced an ideology of inclusion - “The whole idea is to
625 celebrate that individuality and learn from our participants” (tutor - field notes) - the reality
626 was that by ‘acting autistic’ the participants internalised, embodied and reproduced
627 homogenising, discriminatory and stigmatic assumptions about people with ASD that
628 contributed to a form of internalised oppression (Thomas, 2004b). Participant learning was
629 shaped by shared assumptions, ‘inclusive’ ideologies and disabling stereotypes that affected
630 how they coached disabled people. The effect was a pervasive discourse of ‘problematics’
631 where disability was located in the individual (DePauw, 1997). Therefore, the analysis
632 highlighted a contradiction whereby the course promoted the very thing it explicitly aimed to
633 prevent. In doing so, the participants and tutor acted as “agents of disablism” (Thomas, 1999,
634 p.48) contributing to the manifestation, reproduction and transmission of meanings about

635 disability that informed coach learning (cf. Thomas, 2004b). Such a reductive view of
636 disability and coaching can be criticised for continuing to uphold an understanding of
637 disability within “a functional and medical paradigmatic framework” (Reindal, 2008, p. 136).
638 The analysis highlights that coach education can become a space where “disablist social
639 relationships operate” (Thomas, 2004b, p. 34) to structure coach learning, by grounding it in
640 falsely-routinised scenario-based learning strategies. Coaching knowledge was based on a
641 collective cultural ideology that drew, knowingly or unknowingly, on medical model
642 assumptions. The degree to which participants were ‘learning’, then, is an issue for debate. It
643 may be argued that the pedagogy of the course failed to appreciate the situatedness of
644 coaching, instead offering decontextualized knowledge that practitioners failed to see the
645 relevance of:

646 It’s probably left me with more questions. As it stands I’m not sure coaches learn
647 anything that they don't know just by working with autistic people. I left feeling
648 slightly disappointed and of the opinion that there would be nothing new for coaches.
649 (I) think it’s all about knowing and supporting people that you are delivering to-
650 which good coaches should do anyway. I still have nothing to go off to be able to
651 support them better than I already do. What are the things that I could try if someone
652 present x or y or z traits? That's the expertise bit I would want. What have I done as a
653 coach that's wrong so I know not to do it again? (Coach - reflection).

654 **Conclusion**

655 In this paper, we have focused on the ways in which disability was understood and expressed
656 within an impairment-specific mode of coach education. This is an important connection to
657 make, as the research shows the permeability of coaching knowledge to macro-issues such as
658 disability, contrary to a body of work that forces disability into the background of coaching
659 (Townsend *et al.*, 2016). In this study, coaching knowledge was structured by medical model
660 discourses. While the intended focus of the course was on the development of autism
661 ‘awareness’ and improving coaches’ confidence, the teaching and learning practices
662 centralised the limiting and varied impairment effects of ASD as the *cause of* exclusion

663 (Thomas, 1999, 2007). This is not to be critical of coach educators, rather, the analysis is
664 illustrative of the ways that disability discourses can both enable and constrain coach learning
665 as they give socially constructed categories of meaning to disability “formed in particular
666 temporal and spatial contexts” (Thomas, 2004b, p. 44). A social relational perspective
667 illustrated how coaching knowledge functioned as a barrier to inclusion and contributed to
668 disablism. The use of the social relational model helped to decentre the emphasis on
669 individual coaches, moving towards a relational ontology of learning. The focus on social
670 relations as a basis for understanding learning in coach education is useful as social relations
671 comprise “the sedimented past and projected future of a stream of interaction” (Crossley
672 (2011, p. 35). A relational ontology positions coach learning as tied to the interaction
673 between individual agency and social structure, and reinforced through social practices and
674 internalised cultural discourses. Given this, a relational conception has significant
675 implications for coaching, by suggesting that relational processes structure individual
676 learning.

677 This research has provided substantive evidence that short-term, standardised and
678 context-isolated modes of coach education contribute only marginally to a disability coach
679 development agenda. This study has shown that disability coach education takes the form of
680 ‘additive’, passive learning episodes that focus on exposure to disability content and are
681 characterised by separatist thinking and practices. Under certain conditions such training can
682 contribute to the reproduction of coaching knowledge based on uncritical disability
683 discourses that inhibit coach learning. Indeed, the research provides important insight into the
684 “generation and distribution of impairment, and hence of disability” (Thomas, 2004b, p. 46)
685 in coaching, underlining the connection between coach learning and the social relationships
686 that constitute exclusion. Indeed, disability was understood in collective rather than
687 individual terms, and while there were of course idiosyncrasies of individual experience, the

688 problems with coach education were trapped in the way that coaching cultures follow a
689 model of reproduction.

690 For coach educators wishing to develop more informed coach education opportunities,
691 it is important to carefully consider the assumptions that underpin pedagogic design. It is
692 clear that there is an ongoing challenge to theorise and implement the optimal conditions for
693 developing coaching knowledge in disability sport. But, it may be worthwhile examining the
694 knowledge, practices and skills of the coach in the first instance (i.e. social practice) and
695 engage with models of disability as reflective frameworks on which to further understandings
696 of disability and its interrelation with sport (Townsend *et al.*, 2016). However, more evidence
697 is required across the disability coach development pathway, as there is a lack of evidence not
698 only as to ‘what works’, but what is being ‘done’. Given our current knowledge base, coach
699 education is underpinned by implicit medical model discourses that are presented as a
700 “benevolent and benign aspect” (Rice, 2006, p, 263) of coach development. As long as coach
701 education positions disabled people as ‘different’ to the degree that separate structures are
702 required to educate coaches, inclusive sports coaching remains elusive.

703 **Acknowledgements**

704 Thanks to Dr Anna Stodter for her feedback on an earlier draft of this article, and to the two
705 anonymous reviewers whose feedback was greatly appreciated.

706 **References**

707 American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental*
708 *Disorders: DSM-5*. Washington, D.C: American Psychiatric Association.

709 Brown, D. (2005). An economy of gendered practices? Learning to teach physical education
710 from the perspective of Pierre Bourdieu’s embodied sociology. *Sport, Education and*
711 *Society*, 10, 3–23.

- 712 Bush, A. J., & Silk, M. L. (2012). Politics, power & the podium: Coaching for Paralympic
713 performance. *Reflective Practice: International and Multidisciplinary Perspectives*, 13,
714 471–482.
- 715 Coldwell, M. & Simkins, T. (2011). Level models of continuing professional development
716 evaluation: a grounded review and critique, *Professional Development in Education*,
717 37, (1), 143-57.
- 718 Cregan, K., Bloom, G. A., & Reid, G. (2007). Career evolution and knowledge of elite
719 coaches of swimmers with a physical disability. *Research Quarterly for Exercise and*
720 *Sport*, 78, 339–350.
- 721 Crossley, N. (2011). *Towards relational sociology*. London: Routledge.
- 722 DePauw, K. (1986). Research on sport for athletes with disabilities. *Adapted Physical Activity*
723 *Quarterly*, 3, 292–299.
- 724 DePauw, K. P. (1997). The (in)visibility of disability: Cultural contexts and sporting bodies.
725 *Quest*, 49, 416–430.
- 726 Fairhurst, K. E., Bloom, G.A. & Harvey, W.J. (2017). The learning and mentoring
727 experiences of Paralympic coaches. *Disability and Health Journal*. 1-17.
- 728 Goodley, D. (2011). *Disability studies: An interdisciplinary introduction*. London: Sage.
- 729 Goodley, D., & Runswick-Cole, K. (2012). Reading Rosie: the postmodern disabled child.
730 *Educational and Child Psychology*. 29(2), 53-66.
- 731 Jones, R. L., & Wallace, M. (2005). Another bad day at the training ground: Coping with
732 ambiguity in the coaching context. *Sport, education and society*, 10, 119–134.
- 733 Kean, B., Gray, M., Verdonck, M., Burkett, B. & Oprescu, F. (2017). The impact of the
734 environment on elite wheelchair basketball athletes: a cross case comparison.
735 *Qualitative Research in Sport, Exercise and Health*. 9(4), 485-498.
- 736 Lather, P. (2004) ‘Critical Inquiry in Qualitative Research: Feminist and Poststructural
737 Perspectives: Science “After Truth”’, in K. DeMarrais & S. D. Lapan (eds.)
738 *Foundations for Research: Methods of Inquiry in Education and the Social Science*, pp.
739 203-215, New Jersey: Lawrence Erlbaum Associates.
- 740 Leduc, M., Culver, D.M., & Werthner, P. (2012). Following a coach education programme:
741 coaches’ perceptions and reported actions. *Sports Coaching Review*, 1(2), 135-150.
- 742 Lemyre, F., Trudel, P. & Durand-Bush, N. (2007). How Youth-sport Coaches Learn to
743 Coach. *The Sport Psychologist*. 21, 191.-209
- 744 Martin, J.J., & Whalen, L. (2013). Effective practices of coaching disability sport. *European*
745 *Journal of Adapted Physical Activity*, 7(2), 13–23.

- 746 McMaster, S., Culver, D., & Werthner, P. (2012). Coaches of athletes with a physical
747 disability: A look at their learning experiences. *Qualitative Research in Sport, Exercise*
748 *and Health*, 4, 226–243.
- 749 Nash, C., Sproule, J., & Horton, P. (2016). Continuing professional development for sports
750 coaches: a road less travelled, *Sport in Society*, DOI: 10.1080/17430437.2017.1232414
- 751 Nelson, L.J., Cushion, C.J. & Potrac, P. (2006). Formal, Nonformal and Informal Coach
752 Learning: A Holistic Conceptualisation. *International Journal of Sports Science &*
753 *Coaching*, 1(3), 247-259.
- 754 Ohrberg, N. (2013). Autism Spectrum Disorder and Youth Sports: The Role of the Sports
755 Manager and Coach. *Journal of Physical Education, Recreation and Dance*, 84(9), 52-
756 56.
- 757 Oliver, M. (1996). *Understanding Disability: From Theory to Practice*, London: Macmillan
758 Press.
- 759 Reindal, S.M. (2008). A social relational model of disability: a theoretical framework for
760 special needs education? *European Journal of Special Needs Education*, 23(2), 135-146,
761 DOI: 10.1080/08856250801947812
- 762 Rice, N. (2006). Promoting ‘epistemic fissures’: Disability studies in teacher education.
763 *Teaching Education*, 17 (3), 251-264, DOI: 10.1080/10476210600849722.
- 764 Ritchie, J., Lewis, J. & Elam, G. (2003). ‘Designing and Selecting Samples’. In J. Ritchie &
765 J. Lewis (Eds.). *Qualitative Research Practice: A Guide for Social Science Students*
766 *and Researchers*, pp.77-108, London, Sage.
- 767 Rosso, E.G.F. (2016). Brief Report: Coaching Adolescents with Autism Spectrum Disorder in
768 a School-Based Multi-Sport Program. *Journal of Autism and Developmental Disorders*,
769 46(7), 2526–2531.
- 770 Smith, B. & Sparkes, A.C. (2016). ‘Interviews: qualitative interviewing in the sport and
771 exercise sciences’. In B. Smith & A.C. Sparkes [Eds]. *Routledge Handbook of*
772 *Qualitative Research in Sport and Exercise*, pp. 103-123. London: Routledge.
- 773 Sparkes, A. C., & Smith, B. (2014). *Qualitative research methods in sport, exercise and*
774 *health: from process to product*. London: Routledge.
- 775 Srivastava, P. & Hopwood, N. (2009). A Practical Iterative Framework for Qualitative Data
776 Analysis. *International Journal of Qualitative Methods*, 8(1), 76-84.
- 777 Stodter, A., & Cushion, C.J. (2017). What works in coach learning, how, and for whom? A
778 grounded process of soccer coaches’ professional learning. *Qualitative Research in*
779 *Sport, Exercise and Health*, 9 (3), 321-338.
- 780 Taylor, S. L., Werthner, P., & Culver, D. M. (2014). A case study of a parasport coach and a
781 life of learning. *International Sport Coaching Journal*, 1, 127–138.

782 Taylor, S. L., Werthner, P., Culver, D., & Callary, B. (2015). The importance of reflection for
 783 coaches in parasport. *Reflective Practice: International and Multidisciplinary*
 784 *Perspectives*, 16, 269–284.

785 Thomas, C. (1999). *Female forms: Experiencing and understanding disability*. Oxfordshire:
 786 Open University Press.

787 Thomas, C. (2004a). How is disability understood? An examination of sociological
 788 approaches. *Disability & Society*. 19(6), 569-583.

789 Thomas, C. (2004b). Developing the social relational in the social model of disability: a
 790 theoretical agenda. In C. Barnes & G. Mercer (Eds.). *Implementing the social model of*
 791 *disability*. Disability Press, Leeds, pp. 32-47.

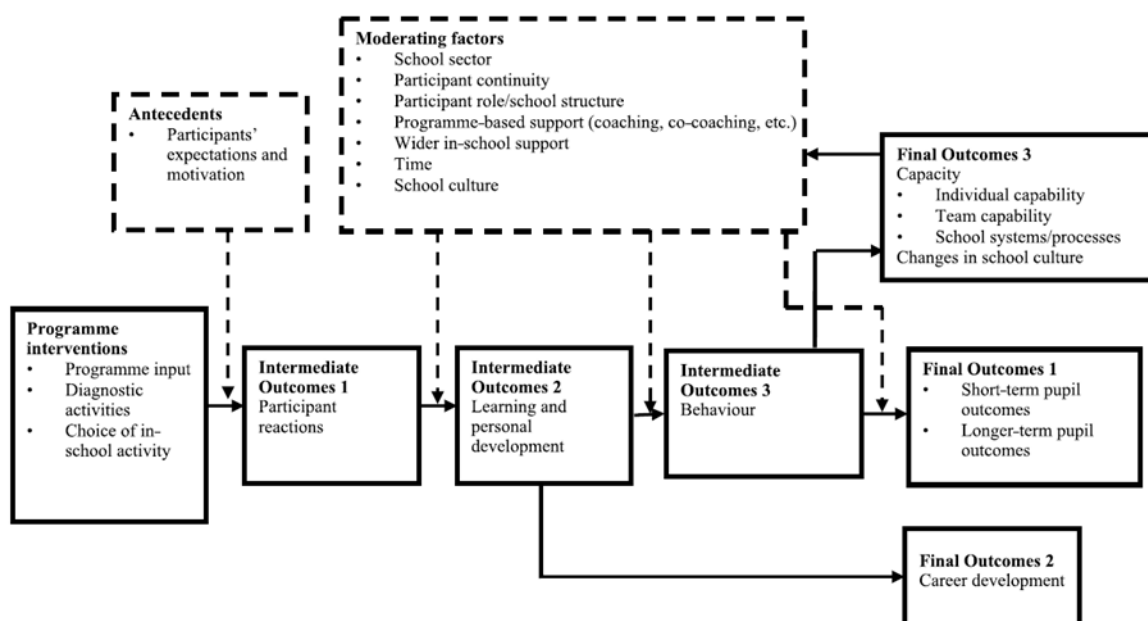
792 Thomas, C. (2007). *Sociologies of disability and illness*. London: Palgrave.

793 Thomas, N. & Guett, M. (2016). Fragmented, complex and cumbersome: a study of disability
 794 sport policy and provision in Europe. *International Journal of Sport Policy and*
 795 *Politics*, 6(3), 389-406.

796 Townsend, R.C., Smith, B., & Cushion, C.J. (2016). Disability sports coaching: towards a
 797 critical understanding. *Sports Coaching Review*, 4(2), 80-98.

798 Wareham, Y., Burkett, B., Innes, P., & Lovell, G. P. (2017). Coaching athletes with disability:
 799 Preconceptions and reality. *Sport in Society*, 1-18.

800 **Fig. 1: Framework for professional development evaluation (Coldwell & Simkins, 2011).**



801