

“I thought we were supposed to learn how to become better coaches”: developing coach education through action research

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**“I thought we were supposed to learn how to become better coaches”:
Developing Coach Education Through Action Research**

Abstract

Youth coaches play a crucial role in the development of young athletes and their physical, psychological and social well-being. Therefore, it is important to foster and develop youth coaches’ ability to govern and act effectively in their coaching practices. Sports organisations facilitate the development of youth coaches through formal coach education. However, research has shown this to be with limited effect. The purpose of this action research study was to involve youth coaches in developing a new and more effective coach education practice.

The coaches developed their practices through both dialogue and reflection with each other. A shift in the mindset of the coaches resulted in a more reflective and analytical approach in their way of thinking and talking about their practices. The most effective tools for improving the coach educational practice was the active management of the relations between the participating coaches and assisting the coaches’ reflection and dialogue through the use of scaffolding. In order to engage coaches in the educational practice, alignment between coaches’ expectations and both course content and form was crucial. These findings provide further insight into how coaches can develop their practices and how sports organisations can develop more effective coach education practices.

Keywords:

Action Research; Coach Education; Sports Coaching; Coach Development; Practice Development

29

30

31 INTRODUCTION

32 Scholars have emphasised the crucial role youth sport coaches play in the experiences of
33 young athletes (eg. Wylleman 2000, Vella, Oades, and Trevor 2011, Larson 2000).

34 Furthermore, youth sport coaches have great influence on young athletes' social, physical and
35 emotional well-being (Gould and Carson 2008, Horn 2002, Bruner et al. 2017) and some
36 studies define coaches to be catalysts for promoting the positive effects of sport participation
37 such as learning social and moral skills (Bailey 2006, Bailey et al. 2009). By way of contrast,
38 it has also been shown that youth sport coaches' behaviour can be abusive or in other ways
39 harmful for young athletes' well-being (Baker, Côté, and Hawes 2000, Kerr 2013).

40 The crucial role that sports coaches play in youth development emphasises the need for
41 competent coaches who effectively master the coaching process (Cushion et al. 2010) which
42 can be described as the *in-situ* coaching behaviour (Lyle 1999). Furthermore, Cushion (2007)
43 describes the coaching process as structured improvisations which are embedded in coaches'
44 practices. Thus, coaching practices are complex phenomena in which the coach is constantly
45 engineering and re-engineering his/her practice according to the athletes and the surrounding
46 environment (North 2013). It is important that coaches can navigate effectively in this
47 complexity, in order to deliver high quality practices, as this may lead to greater learning
48 experiences and well-being among youth athletes.

49 Several studies of how coaches learn and develop their practices have been conducted
50 (Cassidy, Jones, and Potrac 2004, Gilbert and Trudel 2001, Jacobs, Claringbould, and
51 Knoppers 2016). Cushion et al. (2010) distinguish between three different types of learning
52 for coaches; *formal learning*, *informal learning*, and *non-formal learning*. Informal learning
53 is considered a life-long process, where coaches accumulate knowledge and skills from based

54 on every-day experience with the sport activity. These experiences create a basis for how
55 coaches' approach the coaching process in any given context. This is why coaches' may have
56 a tendency to base their coaching on their own experiences as an athlete (Jones, Armour, and
57 Potrac 2003, Lemyre, Trudel, and Durand-Bush 2007). Other types of informal learning
58 happens when coaches observe and imitate the behavior and attitudes of their role-models
59 (Cushion 2001). Non-formal learning occurs in 'any organized educational activity carried
60 out outside the framework of the formal system (Cushion et al. 2010). This could be
61 conferences, seminars and workshops that are arranged through local governing bodies (eg.
62 the coach's own sports club). Both informal and non-formal learning are significant elements
63 in the development of coaches (Cushion et al. 2010, Cushion, Armour, and Jones 2003).

64 Contrary to this, formal learning, which is mainly facilitated through coach education
65 programmes arranged by national sports organizations, only plays a minor role in the
66 development of coaches' practices (Gilbert and Trudel 2001). This is supported by other
67 scholars (eg. Gilbert and Trudel 2001, Jacobs, Claringbould, and Knoppers 2016, Cassidy,
68 Jones, and Potrac 2004) who argue that traditional coach education may not have the desired
69 effect on the development of coaches' practices. Some coaches experience formal coach
70 education setting as indoctrination (Nelson and Cushion 2006) while other coaches simply
71 reject the methods advocated, as these were not seen to be relevant and applicable to their
72 actual coaching contexts (Potrac and Jones 2010).

73 As pointed out by Jacobs, Claringbould, and Knoppers (2016) there is a need to develop a
74 more practice-oriented coach education, which takes the specific contexts and backgrounds of
75 the coaches' practices into account. This corresponds with Clements and Morgan (2016), who
76 suggested that action research should be utilised in order to develop better and more effective
77 coach education. Action research may enable scholars and sports organisations in co-creating

78 practice-based knowledge that could make a difference for both the practices of coach
79 education and consequently the practices of coaches.
80 The purpose of this project was to develop two different practices; the coaching practice of
81 the participating coaches *and* the coach educational practice in which both coaches and
82 researchers participate. Therefore, this study seeks to answer two research questions: *How*
83 *can coaches can develop their own practices? And; how can coach educational practice be*
84 *developed to better facilitate the development of coaches' practices?*

85 **ACTION RESEARCH**

86 In order to answer the two research questions, we (the two authors) adopted an action
87 research approach. The origin of action research has been widely attributed to the original
88 work of authors such as Kurt Lewin (1946) and Paulo Freire (1970).
89 Action research is a transformational social science (Reason and Torbert 2001) and as such, it
90 is an *orientation* towards inquiry in the service of human flourishing (Reason and Bradbury
91 2008). Action researchers attempt to improve the capacity and effectivity of current and
92 future practices rather than producing general knowledge (Elliott 1991). This is achieved by
93 collaborating with participants and linking together action and reflection in a process of
94 normative-pragmatic knowledge creation (Bradbury 2015). Therefore, improving practices is
95 the key mission in action research projects (Elliott 1991, Kemmis et al. 2013).
96 Kemmis et al., 2013 defines practice as a socially established human activity, which shapes
97 and is shaped by practice architectures (Kemmis et al. 2013). Practice architectures consist of
98 *sayings, doings* and *relatings* of actors involved in the practice, which together form and are
99 formed by the history and traditions of the given practice (Kemmis et al. 2013).
100 This definition of practice is similar to the understand of the coaching process as a complex
101 and contextually shaped social activity that is evident in several newer studies (eg. Cushion
102 2007, Cushion, Armour, and Jones 2006, Potrac and Jones 2009, Cassidy, Jones, and Potrac

103 2004). The coaching process may therefore be referred to as *action-in-context* Evans (2017).
104 We argue, that the definition of the coaching process as action-in-context calls for research
105 that is able to provide insight into – and challenge – the practice architectures of both
106 coaching practices and coach education practices. Action research provides a framework for
107 this.

108 As Marshall and Reason (1994) point out, good action research should create value for
109 both the scientific community, participants and researchers. Consequently, action research
110 must engage different levels of practice (Torbert and Taylor 2008). In this study, we worked
111 with two different levels of practice: The development of the coaches' own practices *and* the
112 development of a coach educational practice in which both coaches and researchers
113 participate.

114 **RESEARCH DESIGN**

115 The action research project spanned over 9 weeks with a total of four workshops. One
116 workshop was completed every two weeks during the process. This gave us time to complete
117 three iterations of what Coghlan and Brannick (2014) describe as *the action research cycle*.
118 Each cycle contains activities linked to *constructing* the workshops, *planning* experiments in
119 practice, *acting* out these experiments and *reflecting* upon the experiments.

120 We *constructed* the workshops in collaboration with the coaches based on numerous phone
121 calls both before and after each workshop. In the beginning of each workshop, the coaches
122 *reflected* upon the last weeks' experiments before *planning* new ones. The experiments were
123 planned in collaboration between us and the coaches and were based on the content and
124 various themes, which were presented during the workshops. Before the next workshop, the
125 coaches would *act* out these experiments in their own practices.

126

127 All workshops were created in accordance to the principles of Collaborative Developmental
128 Action Inquiry (CDAI) (Torbert 1991, Torbert 2013). This school of action research draws
129 upon the principles of Action Science (Argyris, Putnam, and Smith 1985) and focuses on
130 enhancing the validity of the information upon which practitioners act, while seeking to
131 improve the effectivity of these actions. Thus, we consider developing practices a normative
132 concept, in which practitioners improve their ability to act effectively and desirably
133 (Friedman and Putnam 2014).

134 A fundamental claim of CDAI is that human action and behaviour is determined by three
135 territories of experience; *intentions, plans, actions* (Foster 2014). The territory of *intentions*
136 represents the coach's motives and visions regarding his practice. The second territory of
137 *plans* is closely connected to *intentions* and refer to the strategies and plans the coach
138 employs when striving to achieve his *intentions*. The third territory, *actions*, represents the
139 tangible action and behaviour of the coach in practice.

140 To develop their practice and improve the effectivity of their actions, practitioners must
141 reflect upon the correlations between these territories (Torbert 1991). Thus, when
142 constructing the workshops, we prioritised activities that would help the coaches explore and
143 reflect upon *their* three territories of experience. Activities such as role playing, critically
144 interviewing, and observation

145 ***The setting and the participants***

146 Based on our personal experience with coach education, both as a participant (first author)
147 and coach educator (second author), we believed that coach education could be improved
148 substantially. Several studies suggest the same (eg. Cassidy, Jones, and Potrac 2004,
149 Clements and Morgan 2016, Cushion et al. 2010, Cushion, Armour, and Jones 2003, Gilbert
150 and Trudel 2001, Jacobs, Claringbould, and Knoppers 2016) and therefore, we decided to

151 challenge the traditional approach to coach education in cooperation with a Danish sports
 152 organisation.

153 We collaborated with ‘The Danish Gymnastic and Sports Organisations’ (DGI). DGI
 154 funded the operational costs, booked locations for the workshops and assisted in the
 155 recruitment of participants. We, both authors, facilitated the workshops as researchers/coach
 156 educators. A total of 13 coaches from various sports disciplines were recruited. The coaches
 157 were between 21 and 65 years of age and had various amounts of coaching experience. Most
 158 of the young coaches had the least amount of experience (one or two years) while the older
 159 coaches had many years of experience (some 20 years or more). The coaches participated
 160 voluntarily and their motivation for participating was a desire to become a better coach and to
 161 improve their coaching practices. Table 1 showcases the demographic information of the
 162 coaches.

163 Table 1. The demographic and attendance of participating coaches.

Gender	Age	Years of experience	Sport and age-group	Previous education	Attendance
Male	51-60	14	Rifling 6-18 year olds	Some formal education	Drop-out after 1 st workshop
Female	61-70	22	Rifling 6-19 year olds	Some formal education	Attended all workshops
Male	31-40	3	Rifling 7-12 year olds	Some formal education	Attended 3 workshops
Male	21-30	5	Gymnastics 18 year olds	Some formal education	Attended 2 workshops
Female	21-30	2	Soccer 11 year olds	No formal education	Attended all workshops
Female	21-30	5	Swimming 12-15 year olds	Some formal education	Attended all workshops
Male	21-30	<1	Rifling 10-15 year olds	No formal education	Attended all workshops
Male	40-50	20	Rifling 10-16 year olds	Some formal education	Drop-out after 1 st workshop
Male	21-30	6	Rifling 5-15 year olds	Some formal education	Attended 3 workshops

Male	31-40	15	Rifling 8-16 year olds	Some formal education	Attended all workshops
Male	21-30	<1	Soccer Senior	No formal education	Drop-out after 1 st workshop
Male	31-40	2	Soccer 14 year olds	Some formal education	Attended all workshops

164 Notes: Two participants dropped out of the project after the 1st workshop due to time constraints. One
165 dropped out due to an injury.

166 *Data production*

167 To produce detailed and contextualised data, we employed various methods of data collection
168 both before, during and after the workshops.

169 Telephone interviews were conducted between each workshop, focusing on evaluating the
170 previous workshop and the construction of the next workshop. These telephone interviews
171 were held in order to produce empirical material related to each coach's individual
172 experience of the previous workshop while also providing an important opportunity for the
173 coach to participate in co-constructing the following workshop. A total of 23 telephone
174 interviews with a duration of 10-45 minutes were conducted.

175 During the workshops, we utilised participant observation (Thorpe and Olive 2016),
176 writing reflective field notes when not facilitating the workshop. Our observations were
177 broadly focused on how the coaches engaged with the content of the course and how this
178 affected their engagement, reflection and interaction.

179 After each workshop, a focus group interview was conducted with coaches willing to
180 participate. The focus group setting provided an opportunity for coaches to continue
181 reflecting upon their own practices and the way they engaged in the workshop (Kemmis,
182 McTaggart, and Nixon 2014). All focus group interviews were recorded and transcribed ad
183 verbatim as this allowed us to produce highly contextual and detailed evidence of coaches'
184 learning process both retrospectively (when coaches discussed the workshop) and in-situ
185 (when coaches reflected upon their practices).

186 After the final workshop, one longer and more elaborative focus group focused on
187 evaluating the project in its entirety, was conducted with all coaches participating. All focus
188 group interviews were semi-structured with open-ended questions (see Kvale and Brinkmann
189 2009), focusing on how the coaches experienced the workshop. All interviews, both
190 telephone and focus group, were utilised to facilitate reflection, which is a key concept in the
191 data production of action research (Kemmis, McTaggart, and Nixon 2014). Furthermore, we
192 incorporated our own reflective journals (Bolton 2014) as a part of the empirical material.
193 We produced qualitative data, as we sought to produce and create thick descriptions (Geertz
194 1973). Our data production was based on a pragmatic approach or what Denzin and Lincoln
195 (2011) refer to as the work of a ‘bricoleur’; or what (Kvale and Brinkmann 2009) refer to as
196 ‘the traveller’. Both concepts underline that data production is an emergent process in which
197 the researcher produces and discovers a detailed and complex empirical landscape in
198 collaboration with the participants. For example, we had to divert from our original idea of
199 coaches working with reflective writing between the workshops. The coaches did not find the
200 reflection logs to be relevant or worthwhile. Instead, the phone interviews were utilized as an
201 important room for reflection, where some coaches were able to not only reflect upon the
202 previous workshop, but also on their experiments in their own practices. Therefore, we did
203 not employ a structured interview guide for the phone interviews. Instead, we were able to
204 ‘join’ the coach and ‘travel’ together, investigating whatever aspect of his/her experience
205 (related to either their own practice or the workshops) that the coach would find most
206 relevant.

207 All empirical material was recorded in Danish and the quotes and transcripts provided in this
208 article have been directly translated by the authors.

209 While progressing through the action research cycles (Coghlan and Brannick 2014), we
210 concurrently analysed the produced data. We analysed the empirical data using a data-driven

211 thematic analysis (Braun and Clarke 2006) in order to identify occurring themes and possible
 212 correlations between these. Data analysis was conducted in qualitative data analysis software
 213 (Nvivo) focusing on both the explicit and latent content in the data (Braun, Clarke, and Weate
 214 2016). Data was coded line-by-line using qualitative data analysis software (Nvivo).

215 Table 2 provides an exemplar of our coding process. This example illustrates initial coding
 216 of latent content as the code is primarily based on our interpretation of the coach’s statement.

217 Table 2. Example of analysis

Raw transcript	Coding	Theme
<i>‘The invitation made it clear, that YOU were to teach US. And not that you were going to extort us into telling you how we coach!’</i>	Frustration with mismatch between invitation and workshop	Expectations are important

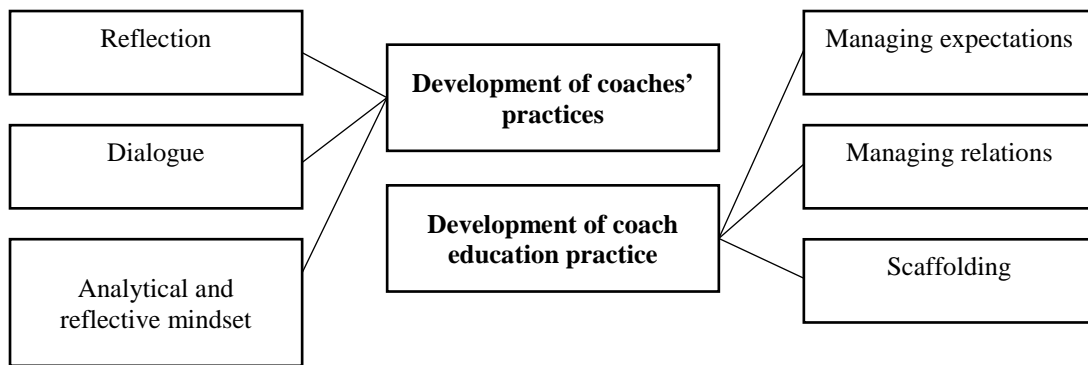
218
 219 Our initial interpretations of latent content in the data was validated by the coaches during the
 220 focus group interview at the end of the workshops. For example, after carrying out the initial
 221 analysis illustrated in table 2, we utilized the following workshop to discuss the theme of
 222 ‘expectations’ with the coaches.

223 **FINDINGS**

224 A total of six primary themes emerged from the data. As shown in figure 1, each theme
 225 relates to either the development of coaches’ practices or the development of coach education
 226 practice.

227

228



229

230

231 *Figure 1.*

232 ***Development of coaches' practices***

233 *The role of reflection*

234 Reflection is a contested term, and we employ a broad definition of reflection based on the
 235 work of Boud, Keogh, and Walker (1985) who argues that reflection is the intellectual and
 236 affective activities in which individuals engage to explore their experiences in order to gain
 237 new understandings.

238 This type of reflection was found to be an important element in the process of coaches
 239 developing their practices. This finding corresponds to the fundamental concept of CDAI, in
 240 which critical reflection acts as the primary driver of learning and development of one's
 241 practice (Torbert 1991).

242 Numerous of the activities were designed with the purpose of having coaches reflect upon
 243 their own practices to which the coaches responded differently. Some coaches had
 244 difficulties with the reflectional activities and others found it easier to benefit from these.
 245 Despite this, most coaches stated both explicitly and implicitly that the reflectional activities
 246 were valuable. Even John, who initially had been sceptical, ultimately concluded the
 247 reflectional activities to be valuable:

248 *The part about watching yourself and the way that you coach. That's not stupid.*

249 *It makes you think about the way you act.*

250 John, telephone interview (post workshop 3)

251 Reflection helped coaches explore and understand aspects of their own practices. Through

252 reflection, another coach, Frederik, realised that he, himself, had been an obstacle in the

253 implementation of a more collective and involving practice:

254 *I mean. I had been working against myself in a way... That eh.. That was kind of*

255 *a punch in the kidney. It was really something that required some deep thoughts.*

256 Frederik, focus group interview (post workshop 2)

257 When the second author asked another coach about a possible discrepancy in her feedback

258 methods, Eva went through a process similar to Frederik's. This is the second author's

259 account of the situation:

260 *I asked Eva, why she thought the feedback that she was giving was not focused*

261 *on the results of the athletes. She looked surprised. Her face grew red, and she*

262 *did not reply for some seconds [...].*

263 Rasmus (second author), observational field notes (workshop 2)

264 In the post workshop focus group interview, Eva reflects upon how the situation affected her:

265 *It was like.. "Oh no. I just never thought about that. I was not aware of that at*

266 *all. What do I do now?". And you're not able to answer that. [...] And you know*

267 *deep inside that something is wrong - that you should be able to give an answer.*

268 *[...] So in a way, after this workshop I feel more like.. "aarr [indicating pain]".*

269 *It's.. Eh.. I mean it's kind of tough, and it hurts a little bit. But on the other hand,*

270 *it's also a really nice opportunity to develop myself.*

271 Eva, focus group interview (post workshop 2)

272 Both Frederik's and Eva's situations are examples of what Argyris and Schön (1974)
273 describe as *double-loop learning*, which can be the result of coaches comparing their
274 explicitly stated ideas and reasoning behind their practice (*espoused theories*) with their
275 observable actions and the reasoning behind these (*enacted theories*) (Putnam 2014).
276 However, it requires coaches to critically assess and reflect upon their own intentions, beliefs,
277 and actions (Russell 2005, Knowles 2001).

278 The significance of double loop learning has been underlined by Argyris and Schön
279 (1974). As such, these situations represent the most significant and positive learning
280 experiences, that some of the coaches experienced. While only a few coaches experienced
281 what can be regarded to as double-loop learning, all of the coaches were able to engage in
282 what Argyris and Schön (1974) would refer to as single-loop learning, where coaches merely
283 adjust their their 'technical operationalization' of their plans and intentions without
284 questioning the validity of these plans and intentions.

285 One re-occurring theme was that coaches gained value from reflecting upon previously
286 unknown details about their practices and possible misalignments between their intentions
287 and actions:

288 *You may see things about your practice, you have not seen before. As I have said*
289 *earlier; you dig deep into stuff, which you have not considered before.*

290 John, focus group interview (post workshop 4)

291 This quote is one example of many and represents what we consider the most significant
292 finding of our study: When reflecting upon their own practices, coaches may discover
293 previously unknown details, contradictions or inadequacies in the intentions, plans, actions

294 and outcomes tied to their practices. Inspired by Piaget (1972), we refer to these discoveries
295 as *disturbances*.

296 During the workshops, we noticed how these disturbances provided powerful opportunities
297 for coaches to develop their practices. The coaches underlined this both during and after the
298 project:

299 *Eva: You're left open, and thinking: "oh god, I'm just doing like I always did -*
300 *I'm just adapting something that I saw someone else do". So yeah. You're kind of*
301 *unveiled [laughs]. And like.. You were unaware of it and completely unprepared.*

302

303 *Frederik: But this also creates so much learning in the end.*

304 *Eva: YEAH! It really does.*

305 Focus group interview (post workshop 2)

306 *The role of dialogue*

307 Most of the workshop activities were collaborative processes, where dialogue between
308 coaches was an essential part of the activity. The coaches stated that these activities were
309 beneficial. In particular, the coaches emphasised the important role of coach-to-coach
310 dialogue, and the *questions* they were asked by other coaches. The coaches would eventually
311 come to refer to these questions as 'good questions', and it became evident, that these 'good
312 questions' proved valuable in facilitating the previously mentioned disturbances.

313 However, not all questions were equally valuable. As we progressed through the action
314 research cycles, it became evident that pairing coaches across different sports disciplines
315 would often stimulate and increase the amount of valuable questions:

316 *[...] the dialogue between us participants. [...] It should be between coaches from*
317 *different sports. So not the same sport together. Because then you're going to be*

318 *like “well this is how we do it” and then “yeah we agree”. [...] You have to get*
319 *out of that line of thinking by getting fresh eyes on it, where you think: “oh, why*
320 *am I actually doing this?” because.. Yea.. It’s that part about asking the right*
321 *questions.*

322 Frederik, focus group interview (post workshop 2)

323 Even when pairing coaches across sports disciplines, we observed a widespread degree of
324 relevance and quality in the dialogues. When evaluating their experiments, some coaches
325 were able to reflectively discuss and assess these, while other coaches explained what they
326 had done, followed by defence or rationalisation of their actions.

327 Nonetheless, most coaches agreed that dialogue was one of the most valuable parts of the
328 workshops. Our findings hereby substantiate, that coaches do indeed develop their practices
329 through social interaction. The important role of social interaction in learning has been
330 underlined by numerous scholars such as Vygotsky (1978) and Wenger (1998). Social
331 interaction and dialogue, according to Vygotsky, is a mechanism and resource through which
332 our understanding of the world is mediated (Säljö 2001). Social interaction and dialogue
333 therefore become a mediator of the reflection process, in which the coach is able to (re)shape
334 his/her understanding of a given practice or experiment.

335 *The role of an analytical and reflective mindset*

336 Our analysis showed one very important change in most of the coaches’ attitudes and use of
337 language. We identified this as a change in the mindset of these coaches: They seemed to
338 understand how and why an analytical mindset could help them develop their coaching
339 practices. The following quote illustrates the newly gained analytical and reflective mindset
340 of one coach:

341 *The thing about discovering who you are and how others perceive you. And how*
342 *you can use tools to analyse what you are actually doing. That I... “How do I*
343 *coach?” “How do I evaluate?” And that’s not something that makes you better*
344 *right now [...]. It’s something that you have to try again, and again, and again.*
345 *And then go back once a week and think about: “Am I still doing it right or?”.*

346 John, focus group interview (post workshop 4)

347 Being able to reflect analytically and critically can be a difficult task for coaches (Knowles et
348 al. 2006, Knowles 2001) but has also been widely recognised as a key ability in the
349 development of practices; both for professional practitioners (Schön 1983) and for coaches
350 (Collins, Carson, and Collins 2016, Cushion, Armour, and Jones 2003). Therefore, we
351 considered this to be significant evidence of the development of the coaches’ practices.

352 But even though we as researchers believed that this analytical and reflective mindset was
353 a clear indicator of the coaches’ development, one coach stated:

354 *I don’t feel like [the workshops] have made me a better coach right now, but [...]*
355 *I’m sure that I will be in the future. There’s not really a lot of it that I think...*
356 *That works at this very moment.*

357 William, focus group interview (post workshop 4)

358 And made even more clear by another coach:

359 *We’re just learning about how you analyse and evaluate practices. I thought we*
360 *were supposed to learn how to become better coaches.*

361 John, telephone interview (post workshop 3)

362 Evidently, some coaches do not associate a reflective and analytical mindset with becoming a
363 better coach per se. This reveals a discrepancy between how we, as researchers, think about
364 reflection as an important element in developing coaches’ (e.g. Gilbert & Trudel 2001;

365 Cushion et al. 2003; Jacobs et al. 2016) and how some coaches think about the role of
366 reflection in developing their own practices. Reflective practice is by scholars '*accepted*
367 *enthusiastically and unquestioningly, and assumed to be 'good' for coaching and coaches*'
368 (Cushion 2018). Not all the participating coaches shared the same enthusiasm for reflectional
369 activities. And while we as researchers found this frustrating, we now realize, that we might
370 have been 'guilty' of what Cushion (2018) describes as the 'taken-for-granted value' of
371 reflection as a way of developing practice. The fact that reflective practice is uncritically
372 considered the ideal in coaching practice results in practitioners being (at least initially)
373 extrinsically motivated (Huntley et al. 2014). It is beyond the scope of this study to discuss
374 whether or not the reflective practitioner should be considered an ideal. Our analysis does
375 however confirm that some coaches do not associate reflective practice with a *better* practice.
376 In accordance to the fundamental principles of CDAI, we argue that reflection is indeed an
377 important tool for developing practice. However, we also agree with Cushion (2018), who
378 raises concern about the way that reflection and reflective practice can be turned into a means
379 of normative control of coaches' identity and practice. Were we to re-run this study, we
380 would, together with the coaches, carefully discuss and reflect upon the potential of reflection
381 as a means of developing practice.

382 ***Development of coach education practice***

383 *Managing expectations*

384 The expectations of the coaches heavily influenced their experience of the first workshop.
385 The evaluations of the first workshop were divergent and some coaches stated that the
386 workshop was not what they expected it to be.

387 The coaches had expected a more "traditional" coach education course with instructor-
388 driven processes and minimal self-activation. However, we constructed the workshops

389 focusing on co-creation, reflection and dialogue. We enacted several of the principles behind
390 CDAI (Torbert 1991) and consequently, we wanted the coaches to explore and reflect upon
391 their *own* practices. One of the coaches' reaction to this was:

392 *I expected more theoretical inputs from you [the researchers] including the*
393 *newest knowledge and research about relevant topics. I really expected another*
394 *approach to the workshop.*

395 Anders, focus group interview (post workshop 1)

396 Clearly, some of the coaches' expectations leading up to the workshops were different to our
397 intentions and ideas behind the project. Those coaches showed clear signs of frustration.
398 Furthermore, during the first workshop, we observed what Knowles (2015) refer to as a low
399 *readiness to learn*. Some coaches would primarily engage in what (Larrivee 2008) describes
400 as non-reflective behaviour. Non-reflective behaviour is described as practitioners not being
401 willing to scrutinize their own practices, while attributing questionable events to external
402 limitations or constraints. Coaches would operate with 'knee-jerk responses', defending their
403 practices while explaining why they should not be changing what they had already been
404 doing. As John explained:

405 *[When expectations are not met] then you automatically go into defence-mode*
406 *and you think: "What is it exactly that have I agreed to participate in?"*

407 John, telephone interview (post workshop 3)

408 Following the first workshop, three coaches decided not to continue in the project. All three
409 stated that the first workshop did not meet their expectations. John, who was equally
410 frustrated after the first workshop (but continued in the project) stated that:

411 *I really was not impressed when I came home after the first workshop. I was on*
412 *the brink of saying: "I really do not want to be a part of this"*

413 John, telephone interview (post workshop 3)

414 This indicates that misaligned expectations do indeed affect coaches' willingness to
415 participate in coach education and can ultimately result in dropouts.

416 As pointed out by the coaches, it is a necessity to manage expectations before and during
417 coach education programmes. They emphasised the need to prepare coaches for what they
418 considered a new and radically different approach to coach education:

419 *I think [coaches] need to know that it is a bit different - another way to think.*

420 *They should not go into this with their old experiences in mind [...] They have to*
421 *be introduced to it. It will give them a better basis for working with this [type of*
422 *coach education].*

423 Josephine, focus group interview (post workshop 4)

424 In order to improve coach education practice, it is important to manage expectations. This
425 could create better experiences for participating coaches, which potentially could increase
426 their willingness and capacity to learn.

427 *Managing relations*

428 As we outlined earlier, the coaches' learning processes are fundamentally a social activity
429 (Vygotsky 1978, Wenger 1998) mediated (amongst others) through dialogue between
430 coaches (Jacobs, Claringbould, and Knoppers 2016). This is most likely why Adams,
431 Copley, and Mullen (2016) suggest that involving coaches in problem-solving, critical
432 discussion and shared reflection should play a central role in coach education programmes.

433 However, our experience with the collaborative activities was not solely positive and
434 varied throughout the course of the project. Some coaches expressed difficulties collaborating
435 with coaches from a different sports discipline. Especially, the coaches from individual sports
436 emphasised the difficulty and irrelevance in sparring with coaches from team sports. They

437 felt that their sports were too different in terms of norms, rules, arrangements and basic
438 assumptions.

439 Furthermore, the difference in age between the coaches posed a challenge for some coaches.
440 One coach emphasised the difficulty in understanding some of the younger coaches at the
441 workshop:

442 *It is difficult to follow and understand the young coaches who are also studying.*

443 *We come from two completely different worlds.*

444 Mary, telephone interview (post workshop 1)

445 This quote illustrates how the relation between the coaches can act as a barrier for
446 constructive dialogue. This is one out of many examples that emerged from the first
447 workshop. Consequently, we changed the organisation of groups for the second workshop,
448 where group work was replaced with coaches working in pairs.

449 At the same time, only six coaches participated in the second workshop due to tournaments
450 and other obligations. Initially, we were concerned about how the low number of participants
451 would affect the group dynamic in the workshop. However, the second workshop would
452 eventually pose a significant turning point in the way the coaches were relating to each other.
453 This is underlined by the following quote:

454 *Rasmus (Second author): What was the most informative activity?*

455 *Frederik: "I would say the dialogue with different coaches. And my personal
456 opinion is that it should be done with two coaches from different sport
457 disciplines."*

458 Focus group interview (post workshop 2)

459 Furthermore, Mary, who had earlier been concerned about the dialogue with other coaches
460 expressed:

461 *It [dialogue with other coach] gave some new and different inputs when we were*
462 *discussing in pairs. It was truly a pleasure to go through this [activity]. It really*
463 *was.*

464 Mary (as noted in the second author's observational notes, workshop 2)

465 It appeared that the comfort or solidarity helped the coaches to engage in meaningful
466 dialogues with coaches from other sport disciplines. The coaches felt safer and more
467 comfortable as the workshops progressed and as they got to know each other:

468 *Well, I think the difference between the first and the second workshop was the*
469 *fact that I had seen the people before. I wasn't nervous in terms of meeting the*
470 *same people again.*

471 Josephine, focus group interview (post workshop 4)

472 We argue, that a more safe and private atmosphere, where coaches have some degree of
473 familiarity with each other, was an important catalyst for the greater openness and increased
474 engagement that we saw during the second workshop. This was an important turning point, as
475 the feeling of safety is crucial when working with the learning of adults (Knowles 2015). In
476 fact, Rogers (1969) argues that feeling threatened will prevent transformational learning from
477 taking place.

478 With fewer coaches participating in the workshop and with coaches working in pairs
479 instead of groups, we (and the coaches) experienced an increase in comfortability and
480 openness. Consequently, managing relations to help participants feel more safe and
481 comfortable becomes an important part of any coach education programme. It has even been
482 suggested, that the ratio between participating coaches and coach educators should be 4:1
483 (Adams, Cropley, and Mullen 2016). This would create better conditions for educators to

484 manage the relations between coaches and as such, could prove a unique opportunity for
485 developing coach education practice.

486 *Scaffolding*

487 Another very important element in the facilitation of coaches' dialogue were the tools,
488 models and frameworks that we introduced to the coaches in order to facilitate their
489 discussions. These would help the coaches maintain direction in their dialogue and facilitate
490 critical shared reflection:

491 *It has been relatively straightforward to overcome these kinds of tasks and*
492 *conversations which normally can be quite erratic without these tools and*
493 *guidance.*

494 Anders, focus group interview (post workshop 1)

495 This type of scaffolding (Wood, Bruner, and Ross 1976) is guided assistance, which helps the
496 coaches maintain meaningful dialogues and reflections on their own. Scaffolding has been
497 known as an effective way to support learners (Vygotsky 1978, Moll 1990) and has been
498 applied as a tool to help learners in developing critical reflections (Coulson and Harvey 2013,
499 Ryan and Ryan 2013).

500 Throughout the course of the project, we would increasingly elaborate and add details,
501 explanations, guiding statements and visual aids to the models and frameworks that the
502 coaches were using in their dialogues.

503 An example of scaffolding was the use of printed posters to guide the coaches' evaluation of
504 their experiments. These posters helped facilitate the reflection and dialogue of the coaches,
505 by presenting questions such as: "*what was your experiment?*", "*what were the positive*
506 *effects from your experiment?*", "*what were the negative effects from your experiment?*" and

507 “*what did you learn from your experiment?*”. Coaches emphasised how these posters were
508 valuable:

509 *“The work we did here [pointing at the poster hanging on the wall] gave me a*
510 *better opportunity to be critical upon the things I am doing in my practice.”*

511 Eva, focus group interview (post workshop 2)

512 At the same time, we attempted to help coaches expand their reflection and more critically
513 explore their practices. We did this by introducing a modified model of reflectional levels
514 inspired by Larrivee (2008) during the first workshop. However, we failed to properly
515 reexamine this model until the fourth and last workshop. One coach underlined the need for
516 scaffolding by emphasising how the model should have been reexamined earlier:

517 *“It [the model with the levels of reflection] should have been reintroduced in*
518 *workshop two [...] I think we could have had an even bigger effect of that tool*
519 *than we did. I mean, we did have a big effect of it but we could have had an even*
520 *bigger effect.”*

521 Klaus, focus group interview (post workshop 4)

522 As such, scaffolding was applied both as a processual and theoretical aid to both guide and
523 inform the reflectional processes. This was a significant help for the coaches, who felt better
524 equipped to carry out valuable reflectional processes and dialogue on their own. Therefore,
525 we argue that the use of scaffolding should be a fundamental aspect in coach education
526 programmes where coaches are involved extensively.

527 **DISCUSSION**

528 Action research is a complex endeavour involving a multitude of voices and practice. Torbert
529 (1991) argues, that the validity of an action research project is based on the extent of which
530 the project integrates these different voices and practices. Therefore, in order to increase the

531 validity of our study, we will discuss and reflect upon how our, the two authors', voice was a
532 determining factor for the direction and design of the action research cycles. Following this,
533 we will discuss to which extent the practice of this study have impacted both the practice of
534 the participating coaches and the practice of coach education.

535 *The researchers' role in the project*

536 It is important that we, as action researchers, reflect upon the unstated and often unconscious
537 attitudes and beliefs that guide our behaviour and choices (Bradbury 2015, Coghlan 2010)

538 Based on both our experience and recent literature (eg. Larsson, Linnér, and Schenker
539 2016) we entered the project believing that both the coaches' practices and coach education
540 practices were bound in place by tradition rather than rationality. And as such, these practices
541 would have a great potential for development, if the coaches were able to realise the need for
542 change.

543 However, *we* realise how we may have unintentionally sought to impose our desire for
544 change onto the coaches. This is in contrast to one of the key aspects of critical action
545 research; that participants *themselves* must feel a concern or a need for change in their
546 practices (Kemmis, McTaggart, and Nixon 2014). On the other hand, (Kemmis et al. 2013)
547 argues that practices are bound by practice architectures and are difficult to change.

548 Therefore, our aim as action researchers was to help coaches understand how their practices
549 are constructed, in order to empower them to propose and enact the change that they,
550 themselves, deem desirable.

551 *Did the coaches develop their practices?*

552 Coaches' practices are constructed by both *sayings*, *doings* and *relatings* bound in time and
553 place to their specific setting. In order to adequately assess whether or not a given practice
554 has been developed, we would need to access empirical events related to each of these above-

555 mentioned dimensions. Inquiring into coaches practices requires the researcher to be present
556 in-situ over a longer period of time (Cushion and Partington 2016). This would make it
557 possible to inquire into both the *sayings*, *doings* and *relatings* of a given practice.

558 However, as our empirical material is limited to the coaches' own verbal accounts of their
559 practice development, we are only able to examine the differences in the coaches' *sayings*
560 about their practices. These *sayings* were, however, divergent.

561 Some coaches were explicitly certain that they *had indeed* developed their practices, but
562 some of their implemented changes were directly incongruent with the recommendations of
563 the coaching and sports psychology literature (e.g. Hendry et al, 2015; Henriksen, 2011;
564 Epstein, 1987).

565 On the contrary, some coaches explicitly stated that they *had not* developed their coaching
566 practice. While, at the same time, these coaches showed clear signs of having developed a
567 more analytical and reflective approach towards their own practices. Schön (1983) argues
568 that this reflective approach is a key element in the thinking and acting of effective
569 professionals. And Collins, Carson, and Collins (2016) state that this is also the case for
570 coaches. Therefore, the reflective mindset could very well indicate a significant development
571 in coaches' practices.

572 Ultimately, we must underline that the coaches *may not* have developed their practices,
573 even though they, themselves, feel like they did. And at the same time, we must recognise
574 that the coaches' practices *may* very well have been developed based on their turn towards a
575 more reflective mindset, even though they stated otherwise. Consequently, it becomes
576 challenging to adequately assess whether the coaches *actually* developed their practices.
577 Therefore, the findings of this study should be critically assessed with this in mind.

578 In order to more effectively develop coaches' practices and properly evaluate this
579 development, future action research could favourably be carried out in the setting of coaches'

580 *own* practices. This would not only provide empirical material that would help better
581 determine if coaches actually improved their practices, but also make possible the
582 engagement and involvement of both athletes, parents, co-coaches and other actors.

583 *Is action research valuable for improving coach education?*

584 Clements and Morgan (2016) argue that action research could be utilised in order to develop
585 better and more effective coach education. We agree that well designed and elaborate action
586 research has the potential to develop coach education practices. We realise now that our
587 design of this project may not have been sufficiently elaborate, as we did not involve coach
588 educators or other actors in coach education practice. Instead, our project was primarily
589 focused on developing the practices of the participating coaches. And even in terms of the
590 coaches' practices, the depth of our inquiry has been limited to each coaches' cognitive
591 representation of their practices. Instead, inquiring into coaching practices should be based on
592 the *in-situ* presence of the researcher *in* the coaches' practice (Cushion and Partington 2016).
593 This poses a significant logistical challenge for the action researcher who would be required
594 to set aside a considerable amount of time and resources in order to adequately participate in
595 each coach's practice.

596 Despite the methodological limitations of this study, we argue that regarding the development
597 of coaches' practices, this study contributes with two types of knowledge; *mode 1 knowledge*,
598 which is academic and focused on being universal and intellectual and *mode 2 knowledge*,
599 which is focused on solutions to particular and local problems in specific practices (see
600 Gibbons et al. 1994).

601 However, in regard to the development of coach education practices, this study primarily
602 contributes with mode 1 knowledge, as we did not involve the important stakeholders, who
603 develop and run coach education programmes, sufficiently. We argue that the practical

604 impact of mode 1 knowledge is limited and thereby agree with scholars such as Argyris,
605 Putnam, and Smith (1985) and Reason and Torbert (2001).

606

607 Therefore, we suggest that future action research in the field of coach education should
608 involve both coaches, coach educators and stakeholders (sports organisations) in order to
609 produce more significant change in coach education practice. Nonetheless, we hope that our
610 findings will help develop coach education practice by inspiring coach educators to critically
611 analyse and reflect upon *their* own practices.

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616 Both authors declare no conflict of interest.

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786

787 Table 1. The demographic and attendance of participating coaches.

Gender	Age	Years of experience	Sport and age-group	Previous education	Attendance
Male	51-60	14	Rifling 6-18 year olds	Some formal education	Drop-out after 1 st workshop
Female	61-70	22	Rifling 6-19 year olds	Some formal education	Attended all workshops
Male	31-40	3	Rifling 7-12 year olds	Some formal education	Attended 3 workshops
Male	21-30	5	Gymnastics 18 year olds	Some formal education	Attended 2 workshops
Female	21-30	2	Soccer 11 year olds	No formal education	Attended all workshops
Female	21-30	5	Swimming 12-15 year olds	Some formal education	Attended all workshops
Male	21-30	<1	Rifling 10-15 year olds	No formal education	Attended all workshops
Male	40-50	20	Rifling 10-16 year olds	Some formal education	Drop-out after 1 st workshop
Male	21-30	6	Rifling 5-15 year olds	Some formal education	Attended 3 workshops
Male	31-40	15	Rifling 8-16 year olds	Some formal education	Attended all workshops
Male	21-30	<1	Soccer Senior	No formal education	Drop-out after 1 st workshop
Male	31-40	2	Soccer 14 year olds	Some formal education	Attended all workshops

788 Notes: Two participants dropped out of the project after the 1st workshop due to time constraints. One
 789 dropped out due to an injury.
 790

791 Table 2. Example of analysis

Raw transcript	Coding	Theme
<p><i>“The invitation made it clear, that YOU were to teach US. And not that you were going to extort us into telling you how we coach!”</i></p>	<p>Frustration with mismatch between invitation and workshop</p>	<p>Expectations are important</p>

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794 Figure 1. Main themes emerging from the analysis.

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