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1 **‘Suspended above, and in action’: Think Aloud as a reflective practice tool.**

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Abstract

23 Think Aloud (TA) involves an individual verbalising his or her thoughts throughout the duration of a
24 task. A case study approach examined the experiences of one football coach (Dave) as he engaged in
25 four coaching sessions using TA. Dave completed four reflective diaries, supported by an overall
26 narrative account, TA transcriptions, and two interviews. The aim of the case study was to gain a
27 deeper understanding of Dave's experiences of using TA in his context. Interpretative
28 Phenomenological Analysis was utilised and revealed a superordinate theme of "suspended above
29 himself" and actively engaging in the coaching session, which reflects the essence of TA for Dave.
30 This metaphor captures the view that the TA process enabled Dave to move between analysing his
31 own performance as if suspended above himself, and engaging in the action of the coaching session.
32 Five subordinate themes were also generated: improved self-awareness; pedagogy; communication
33 skills; feelings of apprehension; and distraction. These findings provide a rich description of the
34 experience of TA and a novel glimpse into the potential pitfalls associated with TA that will inform
35 coach educators. A further significant contribution is provided by highlighting relevant theoretical
36 considerations that will inform future studies.

37 Keywords: Think Aloud, Reflection, Coach Education, Soccer.

38

39

Introduction

40 Extant sport coaching literature outlines reflection as a complex process that encourages
41 coaches to examine their experiences by questioning themselves in the context of their practice
42 (Knowles, Gilbourne, Cropley, & Dugdill, 2014). This questioning approach has been promulgated as
43 a source of learning and thus reflective practice is viewed as an important part of coach learning
44 (Gilbert & Trudel, 2002; Moon, 2013). Indeed, for some time now, it has been argued that reflective
45 practice should be central to coach education programmes (Cushion, Armour, & Jones, 2003;
46 Knowles, Borrie, & Telfer, 2005).

47 Historically, Dewey (1933) identified reflection as a phenomenon that moves people away from
48 routine thinking towards a more careful and critical specialised form of thinking. Schon (1983)
49 developed the basic concept further and identified three forms of reflection (reflection-in-action,
50 reflection-on-action, and retrospective reflection-on-action). Gilbert and Trudel (2002) define
51 *reflection-in-action* as the process of reflecting ‘in the midst of activity,’ such as during a coaching
52 session when an intervention-based reflection can immediately be made. This form of reflection
53 differs from *reflection-on-action* when a coach may reflect on prior situations in between practices
54 and matches. Finally, *retrospective reflection-on-action* occurs when a coach thinks back to a
55 particular situation, where there is no longer an opportunity for reflection-in-action and reflection-on-
56 action (Nelson & Cushion, 2006). Schon’s argument outlines that effectively engaging in these forms
57 of reflection could lead to professional growth through experience (Schon, 1983; 1987). Based on
58 these arguments, Gilbert and Trudel (2002) have suggested that reflective practice provides a
59 framework for understanding how coaches learn and how coaches could develop their knowledge
60 within applied practice.

61

62 Since Gilbert and Trudel’s (2002) suggestion, much coach education policy has promulgated
63 reflective practice as a positive learning mechanism for coaches. Even though reflection has become
64 an integral part of coach education programmes (Knowles, Borrie, & Telfer, 2005; Cushion, Armour,
65 & Jones, 2003), it is not however wholly unproblematic. For instance, Huntley et al. (2014) discussed
66 reflection as a skill that requires learning and suggested that coach education programmes do not
67 allow coaches to learn reflecting skills. Additionally, following the completion of coach education
68 programmes there is often little or no support nor re-accreditation for coaches working in their
69 respective clubs (Cropley, Miles, & Peel, 2012), and therefore coaches may not have the opportunity
70 to enhance their reflective practice skills. Thus Peel, Cropley, Hanton, and Fleming (2013) suggested
71 that in order to realise the potential of reflective practice as a learning tool, governing bodies should
72 create practical methods and processes to support coaches through their reflective journey following
73 completion of coach education certification.

99 participants within these studies were not instructed to reflect *on* their thought processes, but rather
100 the data was being used solely to understand athlete cognition. Outside of the sporting domain, TA
101 has been used as a learning tool within medical settings to develop the clinical reasoning skills of
102 undergraduate nursing students (Banning, 2008). These students were asked to verbalise their thought
103 processes in order to aid their awareness of how and why they were making patient-specific decisions
104 and diagnoses. This research emphasised the reflective process by promoting the self-awareness of
105 these nursing students. Within sport coaching research, Whitehead et al. (2016a) adopted a similar
106 approach to Banning (2008), where TA was used as a tool to develop self-awareness and reflection of
107 coaching practice in action. More specifically, Whitehead and colleagues (2016a) asked coaches to
108 TA whilst coaching, and where possible to ‘step back’ and reflect-in-action. Following the use of TA
109 over two separate coaching sessions, coaches revealed that they had improved their communication
110 and pedagogy skills and had become more self-aware of their coaching practice. Through further
111 examination of their TA content, the coaches’ verbalisations and reflections shifted from mostly
112 description and became more about their internal feelings, analysis, and action planning. However, it
113 is important to note the coaches within this study emphasised the need to spend more time when
114 implementing a new reflective technique into practice (Whitehead et al., 2016a).

115

116 Previous research (Whitehead et al., 2016a) on TA in the coaching context suggests that only a small
117 number of coaches are being given the opportunity to both understand and personally develop this
118 reflective process. Accordingly, there is a need for more situated case studies on TA in coaching
119 practice. In particular, there is a need for studies with a more longitudinal use of TA. Indeed, such
120 studies are warranted, as illustrated by Cushion’s (2016) suggestion that reflective practice within
121 coaching has been adopted uncritically and has become a subtle and persuasive exercise of power.
122 This critique of current reflective practice in coach education argues that coaches are not only being
123 directed on what to think, but also how to think (Cotton, 2001). In contrast, there is a need for coaches
124 to understand their own social context and take additional ownership of the reflective process
125 (Cushion, 2016). Furthermore, Cushion (2016) argued that reflective practice research in coaching has

126 been portrayed as a natural, unbiased, and objective process, bounded by a positivist epistemology. If
127 this is the case, then this poses an issue for coach education research given that coaching is a
128 phenomenon that involves dynamic, complex, and diffused networks of power relations (Denison &
129 Avner, 2011; Jones & Corsby, 2015). Therefore a subjectively-oriented epistemology should be
130 considered when examining reflective practice methods. On this basis, it could be argued that TA,
131 which is a novel and personalised tool, may facilitate autonomous and subjective reflective processes
132 within sports coaching. Furthermore, coaches have reported a preference for continuous professional
133 development (CPD) that enables them to develop their practice through engagement in the practice
134 itself (Nelson, Cushion & Potrac, 2013). With this in mind, it is reasonable to posit that the grounded
135 nature of TA holds much potential for those coaches who wish to learn from situated experiences. In
136 alignment with the advantages, and in response to previous criticisms of reflective practice (Cushion,
137 2016), the current study aims to further understand how TA can be used over a prolonged period of
138 time. More specifically, the current research is co-constructed with an individual soccer coach, with
139 an aim of answering the following:

140 Can TA be used as an effective tool to facilitate reflection-in-action with a women's amateur soccer
141 coach?

142

143 **Methodology: Narrative Case Study**

144 Think Aloud (TA) within the context of this study involves the coach verbalising his thoughts
145 and reflecting on his coaching throughout the duration of the coaching session. To explore TA in
146 action, an inductive case study methodology was adopted. This methodology was appropriate because
147 case studies have been noted as an effective means of studying phenomenon in depth (Flyvbjerg,
148 2006) and exploring the application of theory in complex social contexts (Noor, 2008). In addition,
149 case study methodology provides researchers with flexibility to constitute a case(s) and to utilise
150 methods that are best placed to address the research question(s). Not surprisingly then, case studies
151 have been utilised by coaching researchers who seek to understand coaching from the premise that it

152 is a relational process situated in dynamic social contexts (e.g. Taylor, Werthner, & Culver, 2014;
153 Mallet & Coulter, 2016). The flexibility, which is inherent to case study methodology, has however
154 been the source of criticism by researchers. For example, researchers have been criticised for failing
155 to clarify and justify methodological processes and for implementing processes that are inconsistent
156 with the methodology espoused (Hyett, Kenny, & Dickson-Swift, 2014). To address such concerns,
157 the following section will clarify the paradigmatic position of the paper, introduce the case, describe
158 the methods used to collect and analyse data, and acknowledge the limitations and ethical issues
159 relevant to the study.

160

161 **Philosophical Position**

162 The case study herein is situated within an interpretivist paradigm that is in keeping with the
163 seminal work of Stake (1995). From this perspective, case studies are opportunities to interpret and
164 construct meaning from complex and socially situated accounts of experience. Consistent with the
165 interpretivist paradigm, a subjectivist epistemology guided the study. A subjectivist epistemology
166 recognises knowledge as constructed through individual meaning making and social interaction (e.g.,
167 researcher and participant working together to make sense). Additionally, a relativist ontology, which
168 posits reality as local, social and therefore multiple, also influenced the methodological decisions
169 undertaken. Thus, from this ontological position, our definition of the case and the analysis that
170 follows is just one possible exploration.

171

172 **The Case**

173 The participant, Dave, was purposefully sampled. Dave's experience was of interest to the
174 researchers because he is a football (soccer) coach who was keen to develop his coaching practice
175 through TA and to advance his own personal development. Dave is characterised herein as an
176 enthusiastic TA neophyte who was willing to use the protocol in a naturally occurring context.
177 Therefore, Dave was a critical case (Patton, 1990) who was deliberately sampled because of these

178 characteristics. This case and these characteristics are worthy of study because they provide an
179 opportunity to explore theory in practice and to elucidate the practical dimensions of TA as a coach
180 development tool. More specifically, Dave had read about TA and decided to ‘try it out’ in his
181 coaching sessions.

182

183 At the time Dave was a young coach (23 yrs) and was qualified to coach soccer because he
184 possessed the Football Association Level 2 coaching qualification. As a player himself, Dave had
185 spent five years at a Premier League Club academy and represented his county in underage
186 competitions. He also played for his University team for three years. In terms of coaching
187 experiences, Dave had spent seven years coaching in community soccer contexts, including summer
188 camps. He also completed voluntary work with a Premier League Academy and a University team.
189 However, this was his first season with the women’s team and thus he was keen to develop as a coach.
190 Hence his willingness to participate in the present study.

191

192 During the season, coaching sessions took place twice a week and involved the team (24
193 players and 2 assistant coaches). Each weekend the team participated in a national (non-professional)
194 league and was classed as participating at an adult recreational level. In this domain, sport can be
195 competitive but is typically performed by amateurs for a range of motives including but not limited to
196 socialising, health benefits, and fun (Côté, Young, North, & Duffy, 2007). Indeed, in the season prior
197 to Dave assuming the role of head coach, the team in question had previously finished bottom of the
198 league table and yet players continued to attend sessions. This once again reinforces the view that the
199 team participates within an adult recreation domain (Côté, et al., 2007).

200

201 As well as being a critical case, Dave was also a convenient sample. While the study took
202 place, Dave was undertaking a post-graduate qualification at the same university as the researchers.
203 Indeed, the researchers had heard of Dave’s intention to use TA through a colleague and approached

204 Dave directly. This convenient, yet purposeful and critical sample brings both advantages and
205 disadvantages. Specifically, it is not claimed that Dave is a representative sample and thus
206 generalisation from this case should not be made solely on the basis of Dave's characteristics. Rather,
207 it is claimed that the case is a convenient one which is bounded by the individuals involved, the
208 context in which it is set, and the season in which TA was utilised. Nonetheless, Dave's case has the
209 promise to elucidate the impact of TA on his coaching practice and to explore the efficacy of TA as a
210 coach development tool.

211

212 **Data Collection Procedures**

213 Reflecting the subjectivist epistemology and the flexibility afforded by case study research,
214 data collection incorporated a range of methods in order to elucidate the experience as fully as
215 possible. Each method has its own strengths and weaknesses and by utilising a range of methods, a
216 rich description (including the what, how, and why) of the phenomenon in question was gathered
217 (Manojlovich et al., 2015). Although various methods were used, it is important to note that these
218 were all guided by a subjectivist epistemology with the aim of understanding the use TA as a tool to
219 facilitate reflection-in-action with a women's amateur soccer coach. In doing so, the study avoided the
220 philosophical challenges often associated with mixed methods research (Bishop, 2015). More
221 specifically, the philosophical position influenced data collection via the following methods:

222 1. A life history interview. This interview utilised procedures recommended by McAdams
223 (1995). These included asking Dave to divide his coaching life into chapters, discussing
224 critical events in each chapter by examining: peak events, nadir events, and turning points;
225 considering positive and negative influences upon Dave; identifying a central narrative; and
226 hypothesising future actions. This interview provided biographical context for the TA
227 experience. This was important because sport coaching is a personal process influenced by
228 individual values, beliefs, and life history (Jones, Armour, & Potrac, 2004). This interview
229 was conducted by the third author and lasted 52 minutes.

- 230 2. A transcript of TA data. This data was collected across 4 coaching sessions and amounted to
231 10.461 words. Data was recorded as part of the TA process and was transcribed verbatim.
232 This data was collected for two reasons: 1) it confirmed that TA had been utilised: and 2) it
233 provided an opportunity to examine the content of Dave’s reflections. Thus, this method
234 showed us ‘what’ Dave thought about (Manojlovich et al., 2015).
- 235 3. Dave’s week by week (n = 4) diary of his experience using TA. This diary was constructed
236 using guidelines by Gibbs (1998). This data was collected because, as others have illustrated
237 (e.g. Casey & Fletcher, 2017), the diaries provided a useful temporal account of situated
238 experience and meaning making. More precisely, the diaries provided a timely account of
239 ‘how’ Dave experienced TA (Manojlovich et al., 2015). This is consistent with the
240 subjectivist epistemology and the aim to explore whether TA was effective for Dave.
- 241 4. An overall narrative account of Dave’s TA experience. Dave constructed this as a means of
242 providing a holistic overview of his TA experience. It was a valuable piece of data because in
243 contrast to the weekly diary, the narrative was a final account of all his experience. It was
244 completed individually, contained 937 words, and aligns with both the perspective that
245 coaches can be storytellers (Carless & Douglas, 2011) and the subjectivist epistemology.
246 Moreover, it provided the opportunity for Dave to describe a more complete appraisal of
247 ‘how’ TA was for him beyond the episodic and temporal diary entries.
- 248 5. A second interview was conducted with Dave. The initial section of this interview was
249 descriptive in nature and asked open-ended questions that aimed to situate his TA experience
250 in context (e.g., what does a typical session look like? Who is there? What does it sound like?
251 When did you use TA? How did you use it?) In so doing, a rich descriptive and grounded
252 account of Dave’s experiences was gathered. Coaching is acknowledged as a contextually
253 situated activity (Evans, 2017) and thus it was important that we could understand Dave’s
254 thoughts in context. The latter part of the interview also provided an opportunity for the
255 researchers to further and more fully explore Dave’s diary entries and his narrative account in
256 order to explore ‘why’ Dave might have had the experiences he did while using TA

257 (Manojlovich et al., 2015). This interview was conducted by the first researcher and lasted 25
258 minutes.

259

260 **Data Analysis**

261 Procedures influenced by Interpretative Phenomenological Analysis (IPA) (Smith & Osborn,
262 2008) were utilised in order to make sense of the data. This decision is consistent with a focus on
263 Dave's lived experience, the relativist ontology espoused earlier, and an aspiration to understand in
264 depth the idiographic experiences of a purposive, homogenous sample. Other qualitative approaches
265 were available such as Thematic Analysis (Braun & Clarke, 2006), but these were eschewed in order
266 to capitalise on IPA's potential to explore a) the phenomenon in question (TA); and, b) appreciate the
267 idiographic nature of a small sample (Callary, Rathwell, & Young, 2015). IPA is influenced by
268 phenomenology, which is a descriptive philosophical approach that seeks to elucidate the essence of a
269 phenomenon: TA in this study. This philosophy has influenced many strands of phenomenological
270 informed research methods and is relevant to sport research (Kerry & Armour, 2000) and sport
271 coaching research (Cronin & Armour, 2015; Cronin & Armour, 2017). Interpretative phenomenology
272 analysis is one such method and it recognises that phenomenon are subjectively experienced within
273 our given social lifeworld (Smith & Osborn, 2008). Therefore, it was appropriate to use IPA in this
274 study because currently there is a need to describe what TA involves in the context of situated
275 coaching practice and how it is subjectively experienced by a coaching practitioner. Indeed, TA has
276 not been problematized to a point where it is informed or associated with a specific theoretical
277 framework (Welsh, Dewhurst, & Perry, 2018) and thus it is worthy of further description.
278 Additionally, IPA values the interpretative experiences of small samples rather than a larger
279 nomothetic approach (Callary et al., 2015). This idiographic approach was appropriate in this study
280 because TA research is underdeveloped. An in depth case study can provide novel findings that are
281 interesting in their own right, but may also generate future hypothesis (Flyvbjerg, 2006). Thus IPA
282 procedures were both appropriate and adopted, including:

- 283 • Looking for themes in the first case through several immersive readings of the texts (diaries,
284 interview transcripts, and narratives).
- 285 • Initial notes that summarised meaningful sections of texts were made in the left-hand margin
286 and from the second reading onwards potential themes were identified on the right-hand side.
287 This reflects the interpretivist influence upon the study.
- 288 • Themes were then listed on a separate sheet and researcher 3 examined them for connections.
289 This resulted in refinement and identification of subordinate themes.
- 290 • As the clustering of themes took place, the connections to the primary transcript were re-
291 examined to ensure fit with the data.
- 292 • Following this, a table of superordinate themes was created with clear links to subordinate
293 themes. Once again, the researcher team examined these themes to ensure fit with the data.

294

295 Three additional steps were undertaken during the data collection and analysis processes in
296 order to develop a rigorous study. These steps are outlined below to enable readers 'judge' the success
297 of these steps (Smith & McGannon, 2017).

298 First, all researchers completed a positioning statement prior to data collection. This was not a
299 Husserlian attempt at bracketing researcher subjectivity and removing all prior experiences (Husserl,
300 1913/1982). Rather, in keeping with an IPA (Smith & Osborn, 2008), these positioning statements
301 were generated as a means of identifying inherent positions (Callary et al., 2015). To enable this,
302 Langdridge (2007) argues that researchers should consider personal factors, functional issues related
303 to their role, and preconceptions of the topic under consideration. This advice was useful throughout
304 data analysis, because the positioning statements were revisited as a means of questioning
305 interpretations. For example, the positioning statement highlighted that Researcher 1 approached the
306 study with a positive perception of TA. The positioning statement therefore increased the first
307 researcher's awareness of her subjectivity, and in response she aimed to code data in a critical fashion.

308

309 Second, an audit trail, as described above, was maintained throughout the coding process.
310 This helped the researchers consider if interpretations were plausible and defensible. To enable this,
311 the third author acted as a critical friend during the coding process (Smith & McGannon, 2017). The
312 critical friend raised issues such as a contradiction between a negative holistic narrative and positive
313 early experiences of TA. Third, following data analysis, member reflections also took place. During
314 this process, the researchers and the participant examined the superordinate themes identified. This
315 was not an opportunity to confirm the representation of a valid truth, but to identify and explore any
316 contradictions between Dave’s knowledge and that of the researchers. Thus, this step is consistent
317 with the double hermeneutic within IPA (Smith & Osborn, 2008) and the epistemology adopted in the
318 study (Smith & McGannon, 2017). In practice, the participant agreed with the findings during the
319 member reflections and stated “all the themes looked fairly good to me”. The participant did however
320 add more detail, which have subsequently been used as data.

321

322 **Limitations and Ethical Issues**

323 Despite the range of data collected and steps undertaken to develop rigour, it is important to
324 acknowledge the limitations of the study. As mentioned above, the sample was purposive and
325 convenient. Additionally, the findings are not a definitive realist judgement, but a relativist
326 interpretation of Dave’s experience that provide insight on TA as a coach development tool. Readers
327 should therefore be cautious when considering generalisation. We invite them to acts as connoisseurs
328 (Sparkes & Smith, 2014) and use their own critical sensitivities and natural attitude (Stake, 1995) to
329 learn lessons from Dave’s case.

330 It is also important to acknowledge ethical issues within the study. For example, although
331 Dave as a participant has been involved throughout the project, a power dynamic exists between the
332 participant and the researchers. This is perhaps complicated further because Dave was a student at the
333 same institution as the researchers. Accordingly, steps such as the use of a critical friend, member
334 reflections, and positioning statements have been made to somewhat mitigate the power between

335 researchers and participants. In addition, the representation of Dave's TA experiences features some
336 other entities (e.g., players, fellow staff, the soccer club). To represent these individuals and the
337 organisation ethically, pseudonyms have been used throughout the narrative to ensure anonymity.

338

339 **Data Representation**

340 Findings from the data collection and analysis procedures described above are presented in
341 the following section and Table 1. Specifically, a superordinate theme is introduced of being
342 'Suspended above, and in-action' which represents the essence of TA for Dave. This theme is
343 introduced, explained and then supported by subordinate themes grounded in Dave's lived
344 experiences. Following the description of the essence and detailing of Dave's experiences through the
345 subordinate themes, a brief theoretical discussion is provided wherein the researchers make sense of
346 the findings. This brief discussion highlights extant theories which are relevant to the findings. This
347 discussion is a useful aid for future research because to date, TA has not been associated with a
348 specific theoretical framework (Welsh et al., 2018).

349

350 **Results and Discussion**

351 The following results and discussion section will introduce the essence of Think Aloud (TA)
352 for Dave. This essence is explained with a metaphor of being 'Suspended above, and in-action' and
353 examples from Dave's experiences. Subsequent to this, subordinate themes that were also derived
354 from the five data sets outlined within the methodology are presented. These subordinate themes
355 relate to the perceived benefits of using TA (improved self-awareness, pedagogy and communication)
356 and perceived disadvantages (feelings of apprehension and distraction). A brief discussion will be
357 presented to illustrate how each theme contributes to coach education research and to the overall
358 research question of this paper: can TA be used as a tool to facilitate reflection-in-action for a
359 women's amateur soccer coach?

360

361 **Superordinate Theme: ‘Suspended above, and in-action’**

362 The analysis of Dave’s TA experiences led to the identification of an essential superordinate
363 description, characterised by the metaphor; ‘suspended above, and in-action’. The ‘suspended above,
364 and in-action’ metaphor represents how the TA process enabled Dave to adopt a perspective in which
365 he was critically conscious of his *own* coaching practice. More specifically, engaging in TA provided
366 Dave with a meta-cognitive vantage point, which is akin to briefly ‘rising above’ the everyday ‘hustle
367 and bustle’ and narrowly focusing in on his *own* coaching behaviour. This was evidenced within
368 Dave’s TA audio during one of his coaching sessions:

369 I feel like I’m not getting my point across well enough, and maybe I need to change my
370 language, so I’m going to make sure the intensity goes up now and if it doesn’t go up I’m
371 going to try and address them again. (TA session 2).

372

373 Through this meta-cognitive perspective, TA enabled Dave to utilise his critical
374 consciousness and to view his practice as if he was ‘suspended above it’. Thus, the essence of TA for
375 Dave was a feeling of being distanced from the coaching session, but well placed to ‘zoom in’ and
376 analyse his own coaching practice.

377

378 Although Dave experienced TA as ‘suspended above action’, which represents a meta-
379 cognitive stance, he was however still physically immersed in the practical context. Indeed, because
380 Dave was corporeally situated in the coaching session (e.g. on the side-line of a playing field), his
381 critical observations were grounded in the immediate context. This is an important point because it
382 means that Dave was both well placed to critically reflect upon his own action (suspended above
383 action), but also to amend his coaching practice (suspended in-action). For example, in response to
384 his verbalised thoughts above, Dave addressed the players:

385 Ok, hold it there. Just finish off that one Maddy. Laura run this one into here for me. Ok,
386 fantastic, movement sorted. You're all dropping off to receive the ball I've seen everyone of
387 you doing it. But what can we improve a little bit more? Say it every single week,
388 communication. Ok, I'm going to drill it into you week on week until we're perfect. You all
389 loved talking about gogglebox and worms over there in the warm up but now let's talk about
390 passing ok? If I'm receiving the ball off Leah. Yes Leah, I really want the ball. I want the ball
391 more than anybody on this pitch so I'm going to scream for it. Yes give me this ball, back
392 foot. Tell the player you're receiving the ball from where you want it to play, off we go. Good
393 Jemma, bit louder though. Yes Emma superb, good. Much better,

394

395 Subsequent to this action, Dave then verbalised more of his own thoughts including considering how
396 he felt:

397

398 Instantly, I can see an impact on communication, *which makes me feel good*.

399

400 Therefore, Dave not only experienced TA as if he was temporally suspended above the action, but he
401 was also present in it. Indeed, Dave metaphorically moved back and forth between an internally
402 focused state of evaluation to implementing externally focused behaviours. This dualism of both
403 evaluating his own experience from a meta-cognitive perspective, while also being immersed in the
404 practice is represented in the essential superordinate description 'suspended above *and* in-action'.
405 This experience did bring both advantages and disadvantages for Dave (see Table 1) and thus these
406 are further discussed in the five subordinate themes that follow:

407

INSERT TABLE 1 HERE

408

409 **Subordinate Theme - Perceived benefits of using TA**

410 Within the superordinate theme, a set of subordinate themes were generated relating to both
411 the perceived benefits of using TA and the limitations of using TA. The section below provides
412 evidence of the perceived benefits of using TA, which were increased self-awareness, improved
413 pedagogy and improved communication.

414

415 **Subordinate theme 1: increased self-awareness**

416 Increased self-awareness refers to Dave's acknowledgment that, through his use of TA, he
417 was able to become more aware of how and why he was thinking what he was thinking, and to think
418 more about his actions while coaching.

419 Throughout interviews, TA sessions, and reflections, Dave identified how using TA developed his
420 self-awareness:

421 This process allowed me to discover that in fact the information I was giving the players was
422 inconsistent with what I was thinking aloud. For example, there were times I would stop the
423 session and ask questions to the girls in search of a deliberate answer. Although I did not
424 mention in the think aloud process that I was going to do this. This is probably the main thing
425 I realised from the session. There was a lot of instruction given to the players and it was all
426 short and sharp dialogue, which matched the intensity of the session. However, I think that if I
427 varied my behaviour throughout the session the girls would have had more opportunities to
428 develop. (Reflective Log 1).

429

430 Collins and Collins (2012) emphasised that the ability to recognize, in reflection, the
431 interaction of cues, goals, opinions, and situation factors, forms a critical part of the coach's skill.
432 What is evidenced here within Dave's Reflective Log 1 is that he is recognising particular cues and
433 situational factors within his coaching session and as a result, he should vary his behaviour.

434 I think I am more aware of what I am doing in terms of reflecting. I think I am looking and
435 thinking it has actually improved in practice cos I'm looking and thinking 'well she hasn't
436 done that right but what can I do to improve that?' (TA interview).

437 Ok so this is making me feel good because they're working hard and scoring goals and it's
438 challenging them with the two touches but I think the intensity has dropped a little but I'm not
439 sure why. (TA session 1).

440

441 This finding mirrored that of Whitehead et al. (2016a), as their participants demonstrated that
442 the act of putting on a microphone instantly made them feel more self-aware and created a
443 metacognitive process where they would think about their thinking. In turn, this demonstrated how
444 TA may facilitate the process of reflection. Although dated, Knowles and colleagues (2001)
445 highlighted very clearly that reflection is thought to create a link between the application of
446 professional knowledge and practice by raising intuitive knowledge into consciousness (Saylor,
447 1990). Related to this, Kemmis (1985) proposed that reflection is:

448 A dialectical process: it looks inwards at our thoughts and thought processes and outward at
449 the situation in which we find ourselves; when we consider the interaction of the internal and
450 external, our reflection orients us for further thought and action. Reflection is thus 'meta
451 thinking' (thinking about thinking) in which we consider the relationship between our
452 thoughts and action in a particular context. (pp. 141)

453

454 **Subordinate theme 2: improving pedagogy**

455 Improved pedagogy refers to Dave's acknowledgment of improvements in his grounded
456 coaching practice. This became something that Dave believed he had improved on throughout the TA
457 process:

458 I also need to consider using a variety of different coaching styles rather than just command,
459 which was apparent in this session. I used question and answering at the beginning but failed
460 to continue this throughout the session. Recognising when to use certain styles will be
461 important moving forward throughout my development. (Reflective Log 4).

462 Today I'm gonna let them play again, reason I'm gonna do this is because on a Sunday
463 they're gonna have to make their own decisions so I want them to do it here. (TA session 1)

464 It's given me an understanding of different ways I can educate and approach the players, it is
465 always something I am conscious of as it's something I focus on a lot in other modules
466 throughout my masters, so from start to finish I definitely think my pedagogy
467 improved. (Member reflection)

468

469 Perceived improved pedagogy was found to occur throughout Dave's TA experience, in that
470 he questioned his coaching behaviours and content of his coaching sessions. Lawson (1990)
471 postulated that there is no one size fits all pedagogy in the day-to-day lives of coaches, nor their
472 practices. Lyle (2002) and many others (e.g. Cushion et al., 2010) argued that it is important for
473 coaches to learn from experience rather than solely rely on formal coach education. For Dave, TA
474 provided exactly that, in that it allowed him to use his own experience and his own coaching
475 environment as part of his developmental journey.

476

477 **Subordinate theme 3: improved communication**

478 Being able to articulate what, to whom, and when is a vital part of coaching. This ability to
479 communicate effectively is something that is of interest to many coach educators. Dave demonstrated
480 this within his reflective log, a TA session and during his member reflection:

481 I think it was because I was concentrating on the right things to say and focusing on relevant
482 information rather than just speaking for the sake of it. (Reflective Log 2).

483 Ok they're not communicating at all. I wanna know why. Is there something I can do to help
484 them communicate or not? (TA session 1).

485 I think the way I can articulate certain things has improved, I think it has helped me
486 constantly think about what I'm doing and how I am going to articulate that to the players.
487 because I say my thoughts out loud, its helped me vary my communication skills a bit more
488 instead on being so command style all the time, its actually helped to think, actually this isn't
489 a good way to coach, can I communicate a little bit differently, I noticed this is one of my
490 players, from start to finish, she shifted in her behaviour (improved) the more I changed or
491 improved my communication style. (Member reflection)

492

493 **Subordinate Themes - Perceived disadvantages of using TA**

494 What is novel about this research is that Dave has also uncovered some key critical
495 considerations when implementing such a tool into a coach's practice. Specifically, Dave experienced
496 feelings of anxiety and worry when he initially set out to use TA. In addition, Dave also felt that, at
497 times, TA acted as a distraction to the actual coaching process.

498

499 **Subordinate Theme 4: apprehension or worry of using TA**

500 At the start of his TA journey, Dave reported feeling anxious about engaging in the process of
501 TA. It appears from data that his worry was related to using TA correctly and learning the process in
502 the correct way. Previous literature using TA has recommended the use of TA training prior to
503 engaging in this process fully (Eccles & Aarsal, 2017; Whitehead et al., 2018). In accordance, Huntley
504 et al. (2014) also emphasised the need for reflective practice to be learnt and that coaches need time to
505 engage in the process. Dave articulated these concerns throughout some of his data:

506 In terms of using the think aloud protocol, I was very worried that I wasn't talking enough
507 into the microphone about what I was seeing. (Reflective Log 1)

508 I felt that using Think Aloud this week made me slightly anxious at times as I was
509 concentrating on what I was going to say rather than providing a great experience for the
510 girls. (Reflective Log 4)

511 The reality of my think aloud session is beginning to set. My heart is racing. I can feel the
512 anxiety taking over my body. I cannot wait to conquer the last session, so I can get back to
513 normal life. (Narrative)

514

515 Eccles and Aarsal (2017) discuss the common pitfalls of using TA and support that TA is not
516 particularly natural, especially in the presence of others. Although warm up exercises from Eccles
517 (2012) and Ericsson and Simon (1993) are recommended, it is important to note that these exercises
518 are not domain specific. Those utilising TA in the future should engage in domain specific training
519 over a longer period of time to ensure that the coach or participant feels comfortable with the process.
520 Furthermore, from a theoretical perspective it is important to consider cognitive information
521 processing which emphasises the need for a learner to learn in their naturalistic environment. This is
522 due to the brain recognising specific patterns of information within their environment, which may not
523 occur outside of this environment (Gibson 1979; Karni & Sagi 1991). This was elegantly shown by
524 De Groot (1978), who asked master and intermediate chess players to reconstruct the locations of
525 chess pieces after viewing the board for only a few seconds. When the pieces were presented in actual
526 game play locations, the masters were considerably better than the intermediates. However, when the
527 pieces were presented randomly, the two groups of players did not differ in their abilities to
528 reconstruct the board. Studies like this reveal how learning and expertise depends on experience with
529 the specific patterns of information and therefore, the specific learning environment. In Dave's
530 situation, this would suggest that TA should be learnt within his own coaching environment and that
531 the skill of using TA itself needs to be practiced in order for Dave to become fully comfortable with
532 it. This was evidenced within his member reflection:

533 It is a really really useful tool and I do feel that it has improved my coaching process but I do
534 want to make people aware and encourage them to consider some of the potential issues of
535 getting used to it in the beginning. (Member reflection)

536

537 **Subordinate Theme 5: TA as a distraction**

538 Dave found that ‘at times’ TA distracted him from being able to observe the whole coaching
539 environment.

540 I pride myself on creating an environment for my players to develop and express themselves,
541 but during these sessions, I am neglecting my players. I am there in person, but mentally, I
542 cannot concentrate on anything they are doing in the sessions. (Narrative)

543 The session progresses and I continue to verbalise, I am not prepared for what was about to
544 arise. This moment will never leave me. I am delivering a crossing and finishing session. It is
545 running smoothly so I decide to take myself off and ‘smell the grass’, as my level two tutor
546 would frequently say. I proceed to think aloud about how I am feeling in the session “the
547 session is running smoothly, the girls appear to be motivated, I think this is because....
548 Yeeeeees! Oh my god Dave did you see that? I can’t believe it; I didn’t know I even had a left
549 foot.’ I am heartbroken. One of the strikers on my team has scored a goal from outside the
550 box with her left foot. She has never scored a goal in training never mind during a game. This
551 is the highlight of her footballing career and I did not see it. I am at the side of the pitch
552 talking into my microphone commenting on what I had just seen moments before this
553 happened. I want the ground to swallow me up. I never want to coach again. I cannot bring
554 myself to tell her the truth so I jump up and down and reply, “Get in Jem! That was
555 unbelievable. I hope Man City are watching. Get her signed up!” The mood among the group
556 is at an all-time high. Nevertheless, I cannot help but feel distraught. (Narrative)

557

558 From an attentional focus perspective, it is important to consider the potential limiting effects
559 this method may have on the coaching environment. Coaching is a dynamic and complex
560 environment, (Collin & Collins, 2012) and the development of the athlete or team is central to that.
561 Therefore, implementing a tool that has the potential to cause self-internalisation, as evidenced by
562 Dave's report, may have a negative impact on the athlete or team. Specifically, by promoting the use
563 of TA as a reflection-in-action tool, we are running the risk of distracting the coach from his or her
564 usual behaviour. Because Dave is still in the early stages of his coaching career, and he is new to the
565 use of TA, we may be presenting him with an information processing dilemma. Dave now has to
566 focus on both coaching his session, while thinking and reflecting aloud as he coaches.

567 According to Vealey (2007), attentional focus is the ability to direct and sustain focus and
568 attention is defined as the ability to switch focus from different sources of information (Boutcher,
569 2008). If a coach is being instructed to direct his or her intention internally to his or her own thought
570 process, this could result in attention being directed away from the athletes. Thus, there is a conflict
571 about what the coach should be attending to and on conflict detection; the executive control system is
572 alerted and performance is slowed (Tedesqui & Glynn, 2013), which could in turn affect coaching
573 ability. This was evident within Dave's narrative (above) where he described how he missed a
574 player's goal due to his focus on exercising TA dialogue. Furthermore, Dave also acknowledged this
575 within his TA interview:

576 So yeah I might be getting better on reflecting which is brilliant, it's fantastic which is why I
577 wanted to start work on that in the first place but I'm getting worse at coaching cos I'm not
578 actually paying attention to what's going on. (TA interview).

579

580 This distraction is an important consideration if Dave intends to adopt this method of
581 reflection in future. He may consider the type of session he uses it in and how it may affect his ability
582 to attend to his coaching environment.

583

584

Making Sense of Dave's Experiences

585

The above themes elucidate Dave's experiences of using TA within his coaching practice.

586

This section will attempt to make sense of these experiences and explain how both the perceived

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benefits and limitations of using TA may have occurred. Developing self-awareness of one's own

588

strengths and weaknesses is laudable. However, many individuals remain largely unaware of their

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own biases in their self-evaluation (Pronin, 2008). Furthermore, these biases have been found in a

590

plethora of domains including medical trainees (Gordan, 1991), college students (Lew, Alwis, &

591

Schidt, 2010), and athletes (Felson, 1981). Biases may arise because people do not know how to

592

access the non-conscious psychological processes that influence their emotions and behaviour

593

(Wilson 2002; Wilson & Dunn, 2004). Within coaching, where decision-making processes may need

594

to be quick, this will involve a process where few options are generated and individuals are reliant on

595

heuristics to make fast-paced decisions (Johnson & Raab, 2003). When these decisions are made

596

quickly, there is very little conscious attention to the available options prior to the decision being

597

made. Therefore, if this autonomous process is not examined at different time points self-biases and

598

potential ego inflations may go unchallenged and misaligned. It is important to note however, that we

599

can only make these assumptions about Dave and his experience within his own context.

600

601

As already mentioned within these results, Kemmis (1985) proposes that reflection is

602

concerned with looking inwards at our thoughts and outward at the situation we find ourselves in. In

603

turn, we are thinking about thinking. In the case of Dave, we can see this phenomenon through the use

604

of TA and 'suspending' himself above the coaching environment. This allowed him to break his

605

automatic thinking process and 'zoom in' to look inward at his thought processes from the outside.

606

This in turn may also allow for some of these non-conscious processes to be challenged and made

607

conscious, which can promote a more accurate self-evaluation. Further research is required to explore

608

this.

609

610 From a theoretical perspective, the processes of ‘suspending’ the self within the situation
611 using TA is disrupting the natural cognitive process of decision making and coaching during a
612 session. Therefore, this illuminates what Dave has named ‘distraction’ from the task. Masters (1993)
613 proposed that if an individual has an inward focus on attention, within a task, this could lead to the
614 breakdown of the task performance. Masters (1993) names this ‘reinvestment’ and has subsequently
615 produced many empirical papers to support this theory (Masters, Paul, MacMahon, & Eves, 2007;
616 Masters, Poolton, Maxwell, & Raab, 2008). The inward focus of attention acts as distraction to
617 Dave’s previously natural process. However, the process of TA is purposely used to promote an
618 inward focus of attention, which will create a heightened sense of awareness within the coach.
619 Therefore, the theme of ‘distraction’, which is something that was highlighted as a potential barrier to
620 using TA as a reflective practice tool in coaching is potentially pulling the coach away from his
621 session, and drawing his attention inwards. Therefore, this results in some level of disruption of the
622 task of coaching, as evidenced within Dave’s transcript, where he clearly articulates how he started to
623 miss key elements within his coaching environment. This process seems to become a trade-off
624 between Dave becoming internally focussed and potentially reducing his self-bias by making his
625 decision-making process more conscious, and disruption to his grounded practice. The cost of this
626 trade off needs to be something that other coaches may wish to consider when contemplating the use
627 of TA.

628

629

Conclusion

630 Reflective practice has been criticised within the coach education literature as something that
631 is neglected and/or misunderstood (Huntley et al., 2014; Cushion, 2018). The aim of the current study
632 was to apply a novel method of reflection-in-action (Think Aloud) with a women’s amateur soccer
633 coach. Furthermore, traditional approaches to reflection have been under scrutiny, therefore, Dixon et
634 al. (2013) called for more innovate approaches to reflection that also emphasise participation. TA was

635 deemed one such innovative tool to investigate, given that it involves the coach reflecting within the
636 action of his or her own practice. Through a variety of data collection points, this study was able to
637 identify some key benefits of using TA as a reflective tool (e.g. increase self-awareness, improved
638 pedagogy, and improved communication), which are in accordance with the findings from Whitehead
639 et al. (2016a). However, further findings within this study have illuminated some of the potential
640 problems that a coach may face when using this tool (e.g. apprehension and distraction). Although we
641 cannot generalise to all coaches given that the experiences within this study are from one coach and
642 one context, we would encourage coaches and researchers to consider these potential limitations when
643 considering the use of TA within coaching.

644

645 Notwithstanding the attentional focus challenges of TA, Dave clearly demonstrated how a TA
646 ‘neophyte’ has been able to adopt such a method in order to facilitate the reflective process. Although
647 we need to be careful not to uncritically generalise these findings, it is important to acknowledge how
648 the process of using TA has enabled Dave to engage in the reflective process, which is specific to him
649 and his coaching context. Previous research has identified that coaches find the process of reflection-
650 in-action difficult (Knowles, Borrie, & Telfer, 2005; Nelson & Cushion, 2006; Cropley et al., 2016).
651 In contrast, what seems evident throughout this study is that Dave was able to engage in the process
652 and perceive the process to be beneficial to his coaching development.

653

654 When considering Dave’s experience of TA it is important that we respond to arguments that
655 reflective practice within coaching has been adopted uncritically (Cushion, 2016) Indeed, we fully
656 acknowledge that TA is not a panacea to reflective practice and coach development and more research
657 needs to be conducted into the training and application of TA. We have also tried to respond to the
658 argument that coaches are not only being directed on what to think but also how to think (Cotton,
659 2001, pp.514) by giving the ownership of the process to Dave and allowing him to explore the use of
660 TA for himself. Furthermore, Jones, Morgan, and Harris (2012) emphasise how coach education

661 courses are fine in theory but are divorced from the gritty realities of practice. Therefore, we feel that
662 developing a bespoke TA programme for coaches, which enables the coach to apply the principles of
663 TA into their everyday coaching is a vital step towards bridging the gap between the theory and the
664 ‘gritty realities of practice’ (Jones et al., 2012). As Dave engaged in the TA process mostly
665 independently, we recommend further research considers the use of TA through a collaborative
666 process (Griffiths et al., 2016) with other coaches who may be experiencing the same issues.
667 Furthermore, such research could utilise the theoretical frameworks suggested herein (e.g., Masters’
668 reinvestment theory) in order to further elucidate TA as a coach education tool.

669

670 Finally, this study has responded to the criticisms within the coach education literature that
671 reflective practice lacks innovative methods that facilitate reflection-in-action and that reflection
672 should occur within the context of the practice (Dixon et al., 2013; Cropley et al., 2016). It has
673 demonstrated that a novel method of reflection-in-action (Think Aloud) has the potential to develop a
674 coach’s self-awareness, which in turn facilitates the development of both pedagogical and
675 communicative skills within his own coaching environment. It has also made a significant
676 contribution by linking Masters et al. (2007) reinvestment theory to TA. We encourage coach
677 educators and researchers to adopt this method critically with an awareness of both the potential
678 benefits and limitations that Dave experienced within his coaching practice.

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Table 1. Superordinate and subordinate themes associated with Dave’s experiences of using Think Aloud as a reflection-in-action tool.

Superordinate Essence of Think Aloud	
Suspended above, and in Action	
Benefits of Being Suspended above, and in Action	Disadvantages of Being Suspended above, and in Action
Subordinate Themes	
Increased Self-Awareness	Apprehension
Improved Pedagogy	Distraction
Improved Communication	