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15 **The Coaching Process of the Expert Coach: A Coach Led Approach.**
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34

1 Title: **The Coaching Process of the Expert Coach: A Coach Led Approach.**

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3

Abstract

4 The purpose of this study was to engage expert coaches' in an exploration,
5 conceptualisation, and modelling of their coaching process. Six coaches, each
6 developed a model, with accompanying explanation, of 'their' coaching process.
7 These models and explanations were content analysed to identify features of the
8 coaching process and included examination of how to represent the process
9 pictorially. The coaches were then interviewed where they discussed the identified
10 features and how to represent their coaching process as a 'realistic picture'. As a
11 result of this process of data collection, analysis, and member checking, the coaches'
12 conceptualisation of the coaching process and how best to model it was agreed
13 amongst participants. There were seven core principles that underpinned the model:
14 learning partnership; individualised; clear structure with evolving process;
15 orchestrating approach; influenced by coaching environment; holistic and flexible
16 process; and adaptable and dynamic; and six components parts that described the
17 operationalisation of the coaching process: values, knowledge, and skills; contextual
18 constraint; learning environment; preparation phase; performance phase; review
19 phase. The agreed upon pictorial representation of their coaching process brought the
20 process 'to life' and provides researchers, coaches, and coach developers with a
21 conceptualisation of the process by coaches for coaches.

22 Keywords: coaching process model, coaching practice, expertise, coaching education

23

24 **Introduction**

25 The coaching process has been debated for many years, this debate ranges
26 from establishing what it is and how its ‘component parts’ fit together (Côté, Salmela,
27 Trudel, Baria & Russell, 1995; Cushion, Armour & Jones, 2006; Lyle, 2002; Mageau
28 & Vallerand, 2003), to who is the driving force behind it (coach, athlete, organization,
29 culture or environment) (Chelladurai, 2007; Jones & Standage, 2006; Potrac & Jones,
30 2009). Despite attempts to provide conceptual clarity (e.g., Lyle, 2002) there is as yet
31 no agreement upon conceptualisation. However, common features include the
32 involvement of at least two people, coach and athlete. Coaching is, therefore, a social
33 activity benefiting from interpersonal skills. It is complex and dynamic, and yet also
34 goal-oriented, focusing on bringing about change, usually an improvement in the
35 athlete’s performance. Furthermore, it involves a range of activities and skills
36 employed to bring about the desired changes. How, and even if, the process can and
37 should be modelled continues to spark controversy (Barnson, 2014; Cushion, 2007).
38 Researchers have not, yet, captured the subtlety and scope of the coaching process in
39 specific contexts (Cushion, 2014), leaving coaches without a clear set of concepts and
40 principles that reflect actual coaching practice (Cushion et al., 2006). Therefore, the
41 purpose of this study was to engage expert coaches’ in an exploration and
42 conceptualisation of the coaching process and the development of a model of their
43 coaching process.

44 A clear conceptualisation of the coaching process can inform coaches’
45 education and development, support coaches’ desire to improve (Abraham, Collins &
46 Martindale, 2006; Lyle, 2002), assist coaches to provide quality experiences for
47 participants, and progress the profession (Côté, et al., 1995). Barnson (2014)
48 suggested that it is foolish for coaches to attempt to coach without some form of

49 principled template and that it is coaching science's role to support the development
50 of such a 'unifying platform' (p.73). A recent advancement has been the International
51 Sport Coaching Framework (International Council for Coaching Excellence, 2012),
52 which proposed conceptual clarity regarding the coaching contexts, roles, and
53 competencies, and how they inter-relate. This framework was designed to support
54 coach development and professionalism within all coaching domains, and as such
55 provides a broad overview of coaching. It was not, however, intended to provide
56 detail about how the process is operationalised.

57 One approach to provide this operational detail is the use of coaching process
58 models (Cushion, et al., 2006; Gilbert, 2007). Models provide a representation (often
59 diagrammatic) of the key components and their relationships to one another. Their use
60 has, however, been debated. For example, models have been criticised for
61 underplaying, even ignoring, the contextual nature of coaching (Cushion, et al, 2006).
62 Diagrammatic models have been criticised for their unproblematic representation of
63 this complex process (Jones, 2006). In addition, the most commonly used two
64 dimensional model representations have been identified as a limiting factor to
65 portraying the process (Cushion, 2007, Lyle, 2002). Despite these criticisms, there
66 continues to be interest in and attempts made to model the coaching process. Models
67 can provide a means to share understandings of the process, provide some structure to
68 the complex, dynamic activity, and guide development of key coaching skills
69 (Brewer, 2007; Mallett, 2007).

70 Several notable coaching process model contributions include: Fairs' (1987)
71 'objectives model' which described a five-step process reflecting a problem solving
72 approach; a 'mental model' of the coaching process based on their exploration of
73 gymnastic coaches' perceptions of coaching (Côté et al., 1995); a comprehensive

74 model that embraced the ‘wholeness’ of the coaching process, showing its many
75 interactions (Lyle, 2002); and Abraham et al.’s (2006) ‘coaching schematic’ that
76 aimed to be applicable to all situations and contexts. Recently, Barnson’s (2014)
77 ‘authentic model’ took a different view of the coaching process by modelling the
78 opposing tensions within the process forming what he refers to as the coaching
79 paradox. Other frameworks to conceptualise the coaching process have centred on
80 concepts such as leadership (Chelladurai, 2007); motivation (Mageau & Vallerand,
81 2003); efficacy (Feltz, Chase, Moritz & Sullivan, 1999); effectiveness (Côté &
82 Gilbert, 2009); empowerment (Kidman, 2005), relationships (Jowett, 2007) and
83 orchestration (Jones & Wallace, 2005).

84 This work varies in how the models and frameworks have been established
85 including exploring coaches’ perspectives on coaching, observing coaches in action,
86 soliciting athletes’ perspectives on their coaches and coaching. Each
87 conceptualisation reveals commonalities with others and also unique features. For
88 example, Mageau and Vallerand (2003) and Kidman (2005) focused on autonomy
89 support and along with Gilbert and Trudel (2004) recognised the centrality of the
90 athlete and his/her needs. Barnson (2014), Côté et al (1995), Fairs (1987), and Lyle
91 (2002) identified planning, intervening to improve performance, and evaluating
92 effectiveness before engaging in further planning. Others note the importance of the
93 relationship between the coach and athlete (e.g., Barnson, 2014; Gilbert & Trudel,
94 2004; Jowett, 2007; Lyle, 2002). Despite these contributions to understanding the
95 coaching process, there is not as yet a framework that has gained consensus that
96 represents the complexity of the coaching process (Cushion, 2007; Cushion et al.,
97 2006; Gilbert, 2007; Jones, 2006; Jones, Armour & Potrac, 2002; Jones & Wallace,
98 2005).

99 Further work is needed to better understand the nature of the coaching process.
100 We argue that research must be conducted for coaches to support their understanding
101 and development and any resultant conceptualisation, including any diagrammatic
102 representation, should be realistic and meaningful for coaches. With this in mind, we
103 contend, as others have (e.g., Cushion et al, 2003; Gilbert, 2006; Greenwood, Davids,
104 & Renshaw, 2012), that the coaches, themselves need to be integral to the research
105 process. From listening to coaches' experiences in their contexts and involving them
106 in the research process, rather than as just subjects of research, we will better
107 understand the pragmatic constraints of these contexts (Cushion et al., 2003; Gilbert,
108 2006; Greenwood et al, 2012). Self-report approaches have been successfully
109 employed to examine topics such as the coaching process (Côté et al, 1995), role and
110 process during competition (Allen & Ritchie, 2015), micro politics (Potrac & Jones,
111 2009), and role frames and philosophies (Nash, Sproule, & Horton 2008). In this
112 study, we also aimed to listen to the coaches and fully engage them in the research
113 process through active involvement in refining findings and developing the model.
114 Therefore, the purpose of this research was to learn from the coaches themselves by
115 letting them explain their coaching process and involve them in developing a
116 'realistic picture' that can support the work of coaches, coach developers, and
117 researchers.

118 **Method**

119 *Participants*

120 Six coaches considered expert in their practice were invited and agreed to participate
121 in the study. A summary of each coach's level of expertise is presented in Table 1.
122 They all coach in the same coaching domain, kayaking and canoeing, where they
123 work with a range of learners, including children and adults, whose focus may be

124 development for competitive (i.e., racing, competitions, events) and/or non-
125 competitive (i.e., participation, personally-referenced challenging environments,
126 lifestyle) reasons. For the purpose of this research the term ‘learner’ has been adopted
127 to represent performers, athletes or other similar terminology.

128 Gilbert and Trudel (2004) identified that too few studies developed findings
129 from coaches who exhibited styles or practices that should be copied. Consequently,
130 there is a need to exhibit just ‘how good’ coaches used in studies really are. We
131 employed commonly used criteria for establishing expert status such as the number of
132 years coaching, coaching qualification, performance level, and recommendations by
133 National Governing Body (NGB)/peers for their expertise (e.g., Abraham et al., 2006;
134 Côté et al., 1995; Nash, Martindale, Collins & Martindale, 2012; Saury & Durand,
135 1998). This research has identified 10 years coaching as a minimum for expertise. The
136 coaches in the current study had between 20 and 30 years coaching experience, with
137 between 12 and 21 years coaching holding the highest coaching award in their sport
138 (British Canoe Union Level 5 Coach). The six coaches do not meet the successful
139 international athlete criteria. This is primarily due to their coaching domain being
140 either non-competitive, more participation-based, or working with children in a
141 competitive setting. Within their non-competitive domain however, they were
142 regarded by their peers as successful international performers in their achievements of
143 exploration and performance in extreme environments. Examples of these
144 achievements included: leading the first British team to sea kayak around the southern
145 cape of Greenland, white water expeditions to South America, canoe expeditions to
146 Canada and white water expeditions to the Himalaya. Their expert performance level
147 was further evidenced by all the coaches being sponsored performers by equipment
148 manufacturers, having performances recorded in sport specific magazines and having

149 published material in their areas of sporting expertise. All six coaches were
150 recommended by their NGB and regularly provide technical and educational support
151 for the NGB and its coaches. Therefore, using Côté et al.'s (1995) and others' (e.g.,
152 Abraham et al., 2006; Nash et al., 2012) criteria of coaching expertise the six coaches
153 in this research could be classified as expert. In addition, the six coaches who
154 participated in the current study had successfully completed the UKCC Level 4
155 programme which includes engagement in postgraduate study where they identified
156 their own coaching processes and associated expertise. In their study of elite coaches'
157 experiential knowledge of athletes' performance, Greenwood et al (2012) suggested
158 that researchers' reluctance to engage coaches in the research process may be due to
159 concerns over the coaches' lack off technical vocabulary to adequately describe
160 theoretical ideas. Nash et al. (2012) also suggested that the selection of expert coaches
161 for research purposes would do well to take into account the cognitive expertise of the
162 coach, and perhaps their ability to explain the processes and knowledge structure
163 behind their expertise. Therefore, in addition to meeting the criteria for selection as
164 expert coaches outlined above, as a result of their postgraduate studies, the coaches in
165 the current study were also deemed to have the cognitive expertise to engage fully in
166 the research process.

167 ***Procedure***

168 Following ethics approval from the authors' institution, the first author, who is
169 also a coach in the participants' coaching context, employed the selection criteria
170 above to identify six expert coaches. They were invited, and agreed to participate in
171 the study. Consistent with ethical procedures, it was made clear to participants that
172 they were volunteers and a decision to participate (or not) would have no bearing on
173 their postgraduate study. As a starting point for the data collection and analysis,

174 participants were asked to share with the researchers' the model and accompanying
175 explanation of their coaching process which they had created at the beginning of their
176 postgraduate study. As these had been part of their coursework at the time, the
177 coaches had the opportunity to add to or change their model and explanations. None
178 of the coaches chose to make changes and indicated that they were comfortable that
179 the models provided an accurate reflection of their coaching process. These models
180 and explanations were analysed to identify the core coaching principles and
181 component parts that make up the coaches' coaching process. The coaches were then
182 interviewed. In the interview, they were shown the identified principles and
183 components, encouraged to discuss them further and challenge the preliminary
184 principles and components. They were also asked to suggest how best to represent the
185 coaching process as a realistic picture. This process was conducted by the first author,
186 who was not involved in the teaching or assessment of the postgraduate programme.
187 Therefore, the six expert coaches were at the heart of the process by providing the
188 initial data and then commenting and influencing the final results. This resulted in
189 coaches who were actively engaged in the research process (Cushion et al, 2003;
190 Gilbert, 2006) as well as the use of multiple methods which both sought to ensure the
191 integrity of interpretations of data (Gilbert & Trudel, 2004).

192 ***Data Collection***

193 *Coaching process model and explanation.* As part of the six coaches
194 postgraduate study they each produced a written piece of work in which they
195 described and justified a model of 'their' coaching process, including an explanation
196 of the theory and practice on which it was based. This work provided the data for
197 developing initial principles and components of the coaching process and how to
198 represent a 'model' of the process.

199 *Interviews and member checking.* All qualitative researchers must contend
200 with the fact that they are selecting which ‘bits’ they think are important, which
201 elements they believe are convincing and thus they are choosing to disregard other
202 sections of data (Taylor, 2014). To enhance the credibility of the data and
203 representation of the coaching process, feedback was sought from the expert coaches
204 on the preliminary core principles, component parts, themes and model representation
205 (Côté et al., 1995). Semi-structured interviews were conducted with each of the expert
206 coaches as part of a member checking process of the preliminary findings and further
207 develop the model representation.

208 A one-to-one semi-structured interview approach allowed for an in-depth
209 examination of the coaches’ attitudes, opinions, beliefs, and values with respect to the
210 core principles, component parts, themes and model representation (Purdy, 2014).
211 Consistent with ‘good practice’ recommendations for semi-structured interviews (e.g.,
212 Patton, 1990; Purdy, 2014), the interviews included pre-determined questions that
213 were used as a guide, but they allowed for flexibility to explore additional areas that
214 emerged through discussion. The questions encouraged participants to discuss the
215 principles and themes, the content and names given to each and the extent to which
216 they captured what they do. They also encouraged participants to challenge the
217 principles and components and provide additional information or remove redundant
218 information. The coaches were also asked about the value of a model and how best to
219 represent the coaching process. All the interviews were conducted by the first author
220 and lasted 30 to 45 minutes. To ensure a complete and accurate record of the
221 discussions the interviews were recorded.

222 ***Data Analysis***

223 As outlined by Patton (1990) a sensitising approach was used to interpret the
224 data from the six pieces of work. The first author had an initial concept and opinion of
225 the coaching process and its representation. This was used as a general sense of
226 reference, which would be developed as part of the research process. Using this
227 approach, content analysis (Patton, 1990) was used with the data, which included
228 identifying, coding and categorising the primary patterns. To do this, initial ‘open
229 coding’ (Taylor, 2014) was used to identify words and phrases that represented the
230 core principles and component parts of the coaching process. Following this,
231 axial/focus coding (Taylor, 2014) was used to group the above words and phrases into
232 lower and higher order themes. During axial coding an identified component part of
233 the coaching process had to have been identified by at least two of the coaches to be
234 deemed valid and be categorised. This process produced 10 preliminary common core
235 principles of the coaching process and 38 component parts that were preliminary
236 categorised into six higher order themes of the coaching process. The themes
237 represented how the expert coaches’ organised and constructed their knowledge (Côté
238 et al., 1995). The themes were then represented in a preliminary model of the
239 coaching process. The preliminary model was produced by examining the 6 models
240 the coaches had produced and identifying commonalities and unique features in the
241 core principles and components and how they had represented their models. Four of
242 the coaches’ models each contained the majority of the identified principles, parts and
243 themes, two of these attempted to present their model in a 3-dimensional way. A
244 common suggestion from the coaches was the need for a 3-dimensional model, so the
245 preliminary model was based on combining these two models. One 3-D model used
246 DNA as a metaphor to capture the coaching process model, including the helix
247 structure. This metaphor formed the overall ‘shape’ of the preliminary model. The

248 other 3-D model described layers in the coaching process model which were
249 incorporated through the addition of ‘membranes’. In combining the models all the
250 principles, parts and themes were included, and the preliminary model was then
251 further developed and refined through the member checking process.

252 During the interviews notes were taken and these were added to by listening to
253 each of the interviews 3-4 times afterwards. This produced a partial transcription of
254 interview where the simple descriptive parts were noted (e.g., number of international
255 expeditions) and more complex focused areas of the interviews were fully
256 transcribed (Patton, 1990). The interview guide then allowed for cross interview
257 analysis, where answers were grouped together from different people to common
258 questions (Patton, 1990). Taking on board the coaches’ comments, as part of this
259 member checking process, the preliminary coaching process core principles,
260 component parts, and model representation were revisited and developed further as
261 necessary. All the coaches identified that the core principles were a necessary part of
262 understanding their coaching process. In fact, they could be seen as forming an
263 underpinning philosophy of the coaching process that informed which component
264 parts were included in the model and importantly how they interacted and were
265 applied. Although there were some differences and discussions of the exact wording,
266 as well as some overlap in some principles, 7 principles were agreed as being central
267 to the process. The coaches agreed with all the component parts, any variance of
268 opinions here was the perceived importance of them as opposed to whether they are
269 part of the coaching process or not. This variance could be attributed to the coaches’
270 coaching background and learner groups, an example being C5 who works with junior
271 kayak slalom competition athletes versus C2 who runs his own bespoke private
272 coaching business primarily for adults.

273 The interviews and member checking processes were critical in the
274 development and refinement of a representation of the coaching process. The
275 resulting model is presented and discussed in the results section, however, at this
276 point it is useful to provide examples of the valuable input provided by the coaches.
277 The model representation generated the most discussion, in particular, the relationship
278 between the ‘inner helix’ and the ‘permeable membranes’. For example, a key
279 modification was that the membranes should be permeable and therefore, act as a
280 ‘sieve’ of the two-way flow of influences on learning. The ‘outermost membrane’ was
281 also modified, with the ‘values, beliefs and knowledge’ forming this membrane as
282 opposed to the original ‘contextual constraints’. The ‘inner helix’ was also modified
283 to allow for the coach or the learner to be the initiator of the process. This was
284 because the coaches indicated that the process only happened as long as the learner
285 was part of it and that the coach did not need to be in the ‘helix’ (process) all the time.
286 The need for continuous ‘in action’ reflection was also identified, this allowed the
287 past and present to inform decisions for the future at any stage of the learning. The
288 final key concept agreed during the member checking process was how the model
289 should be used. The coaches agreed it should guide rather than prescribe and that
290 capturing the adaptable and flexible nature of the model was important to all coaches.

291 **Results and Discussion**

292 It was clear that there was a common set of principles that underpinned all of
293 the coaches’ views of the coaching process and their associated models. It was these
294 core principles that shaped, not just the component parts of the model, but more
295 importantly how the parts interacted, were portrayed and most importantly applied.
296 Understanding them, allows others to consider them in their own coaching application
297 and interpretation of the model. These identified core principles, component parts,

298 and model of the coaching process are described in the following separate sections.
299 Although represented separately, it is important to remember that the principles and
300 component parts are all interconnected in the coaching process. To show these
301 interconnections, they have been represented in a model of the coaching process
302 which is described and discussed, along with a pictorial representation, in the final
303 section.

304 ***Coaching Process: Core Principles***

305 Seven core principles were identified that provided the foundations for the
306 expert coaches' coaching process (see Figure 1). These were: learning partnership,
307 individualised, clear structure with an evolving process, orchestrating approach,
308 influenced by the coaching environment, holistic and flexible process, and adaptable
309 and dynamic. Next, each principle, along with the lower order themes that comprise
310 each principle, is described and discussed in turn.

311 *Learning Partnership*

312 The relationship between the coach and the learner was deemed important by all the
313 coaches, this interaction shaped the coaching process and model's construction and
314 use. The coaches' identified three main areas that make up this learning partnership:
315 learning focused, a partnership, and coach or learner led.

316 *Learning focused.* Whether it is the coach in control, the learner or indeed the
317 environment having an influence, the coaches believed that learning should always be
318 at the heart of the coaching process and the primary focus. The general opinion from
319 the coaches was captured in the following quote: "*It should be 'learning' focused as*
320 *opposed to 'learner' [focused]*" (C6). C6 explained further that when the focus is on
321 the 'learner' then the coach may address what the learner 'wants', when the focus is
322 on the 'learning' it can ensure the coach addresses what the learner 'needs'. This

323 tension between meeting needs versus wants has parallels with Chelladurai's (2007)
324 Multidimensional Model of Leadership and has been identified as a coaching paradox
325 (Barnson, 2014).

326 *Partnership.* All the coaches agreed on the importance of a shared process
327 between learner and coach. This concurred with Cushion (2011) who suggested that
328 the coach athlete relationship [partnership] is crucial as neither party has the capacity
329 to determine action unilaterally. C4 captured this by saying: "*Yes, but with the*
330 *learning partnership the control changes and is flexible*".

331 *Coach or learner led/initiated:* Who leads the process was a topic of much
332 debate. The coaches agreed that ideally a learner led approach was desired, but it was
333 appreciated this is not always going to be 'learning focused'. C2 suggested: "*coach*
334 *controlled, athlete led*" and C5 explained: "*It is not always 'learner initiated' they*
335 *don't know what they need to learn from the start, the coach can therefore initiate this*
336 *by 'opening the treasure chest' – coach initiated but athlete led*".

337 A 'learner led' approach is facilitated through the learning partnership; learner
338 needs are identified by coach and learner, and then agreed. Such a learning focused
339 partnership is consistent with Kidman (2005). Although coaches preferred the process
340 to be initiated by the learner they recognised that this might lead to the pursuit of
341 learner 'wants' rather than 'needs' and limit learning. By remaining learning focused
342 and agreeing 'needs' with athletes, the coaches were at times initiating or controlling
343 but at the same time facilitating the learner to lead the process. There is also
344 recognition of a need for structure (coach-initiated/controlled) in concert with
345 autonomy support (learner-led) which is consistent with Mageau and Vallerand
346 (2003) motivational model of coach-athlete relationship.

347 *Individualised*

348 Schempp, McCullick and Sannen Mason (2006) stated that the coach must
349 have the individual performer at the heart of the process and a focus on individual
350 performance was critical. The expert coaches all believed that when working with
351 multiple learners the needs of the individual should remain the learning focus as
352 opposed to more generic group needs. C1 captured this when saying: *“every learner*
353 *is different in their needs and how they learn, my job is to recognise this and support*
354 *them.”*

355 *Clear Structure with an Evolving Process*

356 All of the coaches’ models and explanations of the process were based on the
357 plan-do-review structure, a familiar and established model of learning also identified
358 by Wikeley and Bullock (2006). However, the coaches all represented this structure in
359 a continually evolving way and suggested it should not be *“considered a cyclical*
360 *process”* (C3). This is also seen in the International Sports Coaching Frameworks
361 ‘Cycle of Coaching and Continuous Improvement (ICCE, 2012). C6 summarized the
362 way this structure and evolving process works for him *“reflection is key at all stages*
363 *of the process, reflecting on what I have done before and what is happening in front*
364 *of me helps me anticipate what will happen next, that feeds my decision-making as the*
365 *process evolves.”* This approach allowed the process to adapt based on reflection, the
366 learning evolving and being led by developing needs.

367 *Orchestrating Approach*

368 The concept of orchestrating or facilitating learning resonates well within
369 coaching (Ritchie & Allen, 2015; Santos, Jones & Mesquita, 2013) and this approach,
370 as part of a learning partnership, was important to the coaches. The control within this
371 partnership needed to be flexible however as *“within orchestration the control often*
372 *needs to be more with the coach in our domain”* this being often *“from a safety point*

373 *of view*” (C4). An example of this was given by C1 when he described coaching sea
374 kayaking in a high risk environment, the learners did not have the experience to make
375 considered decisions regarding their personal safety in relation to their ability to
376 perform. In this situation he ‘controlled’ the practice and learning to ensure
377 experience was gained but safety maintained.

378 *Influenced by Coaching Environment*

379 The expert coaches’ felt that in their coaching process the “*physical*
380 *environment needs to be there as the key influencer*” (C2). All of the coaches work in
381 a dynamic, high-risk natural environment that incorporates challenging white water
382 rivers, exposed and committing coastlines, open lochs/lakes and ocean surf. In these
383 environments the wind, swell, water and temperature will influence the constant
384 decision-making required to manage risk in a way that promotes learning (Collins &
385 Collins, 2013). The influence of the physical environment on the coaching process
386 has also been identified by expert sailing coaches (Saury & Durand, 1998). Although
387 the physical environment was an important factor, the coaches agreed that the
388 coaching process could equally be influenced by who is being coached, what is being
389 coached or the organisation the coaching is for. Training, competition, participation,
390 adult or children based environments will all have their differing influences that will
391 impact on the coaching process (Nash, et al., 2008).

392 *Holistic and Flexible Process*

393 The coaches recognised that to deal with the complexity of the coaching
394 process and its inherent messiness (Cushion et al., 2006), the process needs to be
395 considered holistically (Potrac, Brewer, Jones, Armour & Hoff, 2000). Within this
396 holistic approach, flexibility could occur to allow the component parts to be used as
397 and when required as opposed to in a fixed order. An example presented by the expert

398 coaches was their need to respond to the physical environment when coaching. This
399 could be the control moving from learner to coach to ensure the safety of the
400 participants, or the style of feedback and communication adapting to cope with
401 weather conditions.

402 *Adaptable and Dynamic*

403 A key principle for all the expert coaches was that in order to deal with
404 learner, coach, and environment the coaching process needs to be adaptable and
405 dynamic. For example, C2 commented: *“the environment is constantly changing*
406 *around us, therefore my coaching needs to adapt to accommodate this.”*

407 In summary, the core principles described how the coaches’ approach the
408 coaching process. The coaches suggested a process that is a learning partnership. It
409 focuses on learning and the learner is integral to the process and as such it is
410 individualised. The coaches orchestrate the process providing clear structure but also
411 adapting and being flexible to meet the learner’s needs and natural environment
412 conditions. The conceptualisation resonates with both athlete-centred approaches
413 (e.g., Kidman, 2005; Mageau & Vallerand, 2003; Ritchie & Allen, 2015) and
414 educational views of coaching (e.g., Cassidy, Jones, & Potrac, 2004; Jones, 2006).
415 The principles were not seen as rules, rather they guided and shaped the coaches’
416 understanding and operationalisation of coaching. As such they can ‘be seen’
417 throughout the process rather than existing at any one point. In describing the process
418 in this way, it was clear that the coaches understood and operated within a messy,
419 dynamic, complex process (Jones & Wallace, 2005), however, they also saw structure
420 within the dynamism (Cushion, 2007; Mallett, 2007). Therefore, both commonalities
421 and unique features could be identified, considered, and used to guide coaches’
422 development, quality practice, and participants’ experiences.

423 **Coaching Process: Component Parts**

424 The component parts of the coaching process were categorised into six higher
425 order themes (see Figure 2): values, knowledge and skills, contextual constraints,
426 learning environment, preparation phase (planning), performance phase (doing) and
427 review/evaluation phase.

428 *Values, Skills and Knowledge*

429 These were seen as the key factors that underpin the coaching process and
430 influence all aspects of it. This theme included 4 lower order themes: coach/learner
431 knowledge, coach/learner skills, coach/learner decisions, coach/learner philosophy.
432 C5 captured the importance of these by saying “*it is the coach’s values, knowledge,*
433 *skills and decisions that underpin the environment in which the coach operates, the*
434 *planning they do and the interactions in support of the athlete’s learning process*”.

435 The coach’s and learner’s personal values were central to and shaped the
436 decisions made as part of the process. Barnson (2014) and Kidman (2005) identified
437 this as core to coaching, adding that it is very much coach and learner specific. The
438 coach’s and learner’s skills and knowledge were also recognised as key factors in the
439 process (cf. Ericsson & Charness, 1994). The coaches believed that these influenced
440 their decision making and subsequently the learning possible and the range of
441 coaching solutions available within the coaching process (Abraham et al., 2006). This
442 could be a decision about the motivational climate fostered or the balance of ‘control’
443 in the coaching relationship, alternatively it could be the chosen environment
444 (exposed and committing versus sheltered natural environment) to carry out the
445 coaching session. Each decision would be based on the values, knowledge of the
446 coach and skills of both learner and coach.

447 *Contextual Constraints*

448 This theme included 6 lower order themes that were: environmental context,
449 people and task context, constant contextual adaptations, safety considerations, ability
450 considerations and making best use of environment. The coaches felt the context in
451 which the coaching takes place will potentially have the biggest influence on the
452 coaching process, constraining it or enhancing it. They suggested the characteristics
453 of the context needed constant monitoring to ensure learning is optimised. Similar to
454 the coaches in the current study, Saury & Durand (1998) identified that the actions of
455 the coaches were full of context based, opportunistic improvisations and extensive
456 management of uncertainty and contradictions. The coaches suggested that it is the
457 constant monitoring, adapting and use of these contextual constraints that allows for
458 improvisations to be made and management to be fulfilled. Brymer and Renshaw
459 (2010) identify how by considering these constraints they can be utilized to enhance
460 learning, however without due consideration they can indeed prevent learning.

461 *Learning Environment*

462 The learning environment created and supported by coach and learner was
463 essential in order to nurture and develop the coaching process. This theme included 7
464 lower order themes: coach/learner relationship, autonomy supportive, motivational
465 climate, learner's actions and perceptions, interpersonal rapport and trust, coaches'
466 actions and perceptions, and caring. This theme encapsulated the learning climate of
467 coach/learner (Allen & Hodge, 2006) and the relationship required to ensure learning
468 outcomes could be met appropriately. In their research with international coaches,
469 Jones et al. (2004) identified this as a fundamental part of the coaching process. In the
470 current study C5 captured the coaches' opinions when he commented: "*the*
471 *connection between the coach and the athlete [learning environment] is the critical*

472 *aspect, if the coach is going to have a facilitative role in supporting the athlete's*
473 *learning process."*

474 *Preparation Phase (Plan)*

475 Planning was an essential part of the process in order to achieve learning
476 focused outcomes. This theme included 9 lower order themes: planning, goal setting,
477 meeting needs and wants, information gathering, objectives established, coaching
478 structure, Technical, Tactical, Physical, Psychological (TTPP) considered, ability
479 established and time phased. Planning relied on reflecting on past knowledge and
480 previous outcomes, the present situation and anticipatory reflection on the learning to
481 happen. C6 commented: "*we need to show how coaches look back to be able to then*
482 *look forward.*" The coaches' view resonates with Taylor (2006) who suggested that
483 planning provides a map of what has gone before and what is coming up, supporting
484 the coach and learner to achieve agreed goals.

485 *Performance Phase (Do)*

486 This was the 'action' part of the coaching process when the process is clear to
487 see. This theme included 8 lower order themes: observation/analysis, feedback,
488 practice styles, coaching/instruction style, questioning, demonstrations, constant
489 monitoring, and communication. C4 identified this as being the stage where through
490 use of appropriate coaching tools the "*learners' needs comes from their wants*
491 *through a realisation and understanding of what is required to achieve their goals.*"
492 All the coaches had this phase as core to their models. C1 commented: "*this is the*
493 *heart of the coaching process for me.*" Cushion et al. (2006) make reference to
494 coaching being the art and science of decision making, this performance phase is
495 perhaps the artistry as learning is not necessarily sequential, it is multifaceted, social,
496 fluid and highly personal (Jones, 2006). For the coaches to respond and adapt in their

497 dynamic coaching environments, whilst all the time focusing on meeting individual
498 needs, then as Saury & Durand (1998) identified the coaches felt this phase was
499 crucial to the success of the process.

500 *Review/Evaluation Phase*

501 After a period of performance or ‘doing’, reflection and evaluation were seen
502 as key. This theme included 3 lower order themes that were: reflection on coaching
503 and learning, evaluate against goals/outcomes and whether change has taken place.
504 This phase it was agreed could overlap the performance to allow ‘in action’ reflection
505 as well as ‘on action’ reflection (Schön, 1983). The reflection would not only be
506 against the performance outcomes, but also be the coach’s reflection on his/her
507 coaching and learners’ reflection on their learning. This reflection constantly
508 considered the first three themes (values, skills and knowledge, contextual constraints
509 and learning environment) in order to support the on-going preparation (planning) and
510 performance (do) phases. C6 called it a “*reflective partnership of coach and student
511 learning together*” and commented: “*reflection is key at all stages of the process,
512 reflecting on what I have done before and what is happening in front of me helps me
513 anticipate what will happen next, that feeds my decision-making as the process
514 evolves*”

515 In summary, six themes comprising the coaching process were identified and
516 agreed upon by the coaches. They represent a coaching process that is shaped by the
517 values, knowledge, and skills of learner and coach, is sensitive to contextual
518 constraints, seeks to foster a productive learning environment and involves planning,
519 performance and review phases. However, during the member checking process it
520 was identified that on their own the themes appear too sequenced and that they
521 needed the model to support their interpretation of the coaching process from a more

522 holistic point of view to *“bring to life”* (C6) the component parts. The perceived
523 advantages included enabling them (and others) to ‘get the idea’: *“It lets me visualise*
524 *the words attached to the process, I need a picture”* (C2). A model also provided
525 structure and a common ground. Comments included: *“It gives shape to the actions I*
526 *take.”* (C4); *“It clarifies events and what happens in between.”* (C3); *“It helps to*
527 *define what we mean and then makes it easier to collectively understand.”* (C5). It
528 was important, however, that the structure was not constraining: *“It is a way to allow*
529 *people to grasp a concept, but then give them the freedom to populate it.”* (C6). In the
530 following section the resultant model is described.

531 **Coaching Process: Practitioner Based Coaching Model**

532 The model is illustrated in Figure 3. The metaphor of the DNA helix was used
533 to capture pictorially the coaching process. The analogy with the blueprint for life
534 suggested a blueprint for coaching but as with coaching, the outward expression of
535 DNA is never the same. A key feature of the metaphor was the double helix, the two
536 ‘strands’ being entwined and evolving together, like coach and learner, surrounded
537 and nurtured by a protective membrane, representing the learning environment and all
538 that influences it. The strands are made up of many building blocks, these are the
539 coaching tools (e.g., observation, feedback, learning opportunities, leadership style).
540 The way the building blocks are combined and the environment influence the overt
541 expression of DNA and so to coaching. And yet just as the double helix is readily
542 identifiable as the structure of DNA, coaching is also readily recognisable.

543 At the core of the coaching process is the learner and coach interaction,
544 represented by a spiralling and ever evolving helix initiated by the learner or coach.
545 This helix evolves as long as the learner requires it. Here the coach and learner are

546 entwined, providing the opportunity for either the learner or coach to be controlling
547 the process and taking the lead, or it to be shared appropriately.

548 Each spiral of the process represents an opportunity for continuous ‘in action’
549 reflection. This could be during any of the learning phases and allows the reflection of
550 immediate as well as past experiences to inform decision-making. This allows
551 constant adaptation in order to select the appropriate coaching tools for the phase in
552 relation to the learning environment, contextual constraints and underpinning values,
553 knowledge and skills. Each coaching tool chosen joins the learner and coach together
554 in the process; again the ‘control’ of the tool could be purely learner, coach or shared
555 appropriately.

556 The learner and coach interaction evolves through on-going preparation,
557 performance and review phases. There is potential in this process for the ‘coach’ part
558 of the helix entwinement to leave the learning process. With the correct tools in place
559 the learner can continue learning and evolving the process on their own, the coach re-
560 joining the helix if and when required.

561 Surrounding this helix are three ‘permeable membranes’ that are key
562 influences on the learning occurring. There are numerous potential influences but the
563 membranes ‘sieve’ out those that need to be considered. This is a two way process
564 with external influences constantly feeding into the coach learner interaction and
565 reflections constantly feeding out in relation to the key external influences. This
566 allows flexibility in the overall process and appropriate adaptations to be made. The
567 learning environment created is the first membrane. This should nurture and protect
568 the coach/learner relationship. Contextual constraints make up the next membrane,
569 these are the external influences effecting the coaching tools required and
570 environment created, they have potential to impact on learning and need to be

571 constantly monitored. For example the natural environment (wind, temperature etc.)
572 was a key constraint for the coaches in this study, however this could equally be a
573 competition versus training contextual constraint. The outermost membrane contains
574 the values, knowledge and skills that the coach and learner bring to the process. These
575 influence the use of contextual constraints, shape the learning environment, and tools
576 available to the coach and learner.

577 The model enables coaches to develop their own ‘way of doing things’ using
578 the model as a guide (an opportunity to check and challenge) rather than a rule book
579 (Mallett, 2007). By encouraging coaches to individually develop their process
580 ‘within’ the model, it moves away from the ‘paint by numbers’ (Jones & Wallace,
581 2005) and ‘systematic’ (Cushion, 2007) approach to modelling seen in the past. It
582 moves the model of the coaching process on to a more holistic, adaptable and flexible
583 representation that allows for individual interpretation to meet the contextual and
584 domain needs for the sport, coach and learners. As one coach commented: *“It allows*
585 *freedom but represents the complexity.”* (C5)

586 **General Discussion**

587 The purpose of this study was to explore expert coaches’ conceptualisations of
588 the coaching process by engaging expert coaches in the research process. In doing so,
589 we have developed a realistic conceptualisation and model of the coaching process
590 that, it is hoped, coaches, coach developers, and researchers will find useful. The
591 findings contribute to our understanding of the complex and dynamic nature of the
592 coaching process and how it is operationalised by: (1) providing detail about the
593 process of coaching rather than simply identifying variables that influence the
594 process; (2) identifying that establishing coaches’ values and beliefs (philosophies
595 about coaching) is critical to understanding how the process operates in practice; (3)

596 capturing how coaches view learners as part of the coaching process, the shift in
597 leading the process between coach and learner, and how coaches solve potential
598 tensions between learners' needs and wants; (4) highlighting that coaches see value in
599 a model to operationalise what they do and that such a representation should guide
600 rather than dictate the process.

601 Despite calls to engage coaches in the research process rather than see them as
602 subjects to be studied (e.g., Cushion, et al., 2003; Gilbert, 2007; Greenwood et al.,
603 2012), few attempts to depict the coaching process have fully engaged coaches in the
604 process. In this study we listened to the coaches and worked with them to develop a
605 conceptualisation and diagrammatic representation of the coaching process. Through
606 this process it became clear that the conceptualisation and model were useful to them
607 and that they felt it would be useful to other coaches and coach developers. The
608 developed conceptualisation and model demonstrate coaches' awareness of both
609 complexity and structure in coaching and illustrates how these coaches employ
610 structure whilst remaining adaptable and flexible to work with the context of the
611 process. In essence, how they operationalise the coaching process.

612 The coaches' philosophy (beliefs) about how to work effectively with athletes
613 was an important feature of the coaches in the present study and those in Barnson's
614 (2014) study of high school team sport coaches. Barnson identified central beliefs
615 about building individual talent, team cohesiveness, style of play which influenced
616 how the coaches approached their work. Similar to Barnson, the coaches in the
617 present study believed in learner development. In contrast, however, and likely in
618 part due to the focus on individual performance rather than team and team
619 performance, these coaches' beliefs did not focus on cohesion or style of play but
620 rather focused on a learning partnership, within a structured yet flexible and adaptable

621 process to meet individual learners' needs and develop independence of performance.
622 Focusing on athletes' needs has been recognised as an important feature of the
623 coaching process (e.g., Abraham et al., 2006) and integral to athlete-centred
624 approaches (e.g., Kidman, 2005; Mageau & Vallerand, 2003), however, few
625 researchers, except Barnson and ourselves, have identified the potential for tension
626 between learner needs and wants. This tension was resolved by the coaches in the
627 present study by maintaining a focus on learning rather than merely learner-focused.
628 This finding, therefore, supports Barnson's identification of this tension and also
629 demonstrates how coaches solve it. Such findings can be linked to and extend
630 research and discussion related to athlete-centred approaches which have not typically
631 addressed this issue in coaching.

632 An increasingly widely held view is that coaching is characterised by
633 uncertainty, complexity and uniqueness (Bowes & Jones, 2006; Lyle, 2002; Ritchie &
634 Allen, 2015). How to capture and represent this is a challenge facing researchers and
635 coach developers alike. Attempts to do so have been criticised for being too simple
636 and presenting the process as unproblematic (e.g., Cushion, 2007; Jones, 2006; Lyle,
637 2002). Opposing this are those who believe models have potential to connect
638 knowledge with practice, in this providing a template to guide coaches and coach
639 developers, and models can bring the coaching process to life and make sense of it
640 (e.g. Abraham, et al., 2006; Barnson, 2014; Brewer, 2007; Côté, 1995; Gilbert, 2007;
641 Mallet, 2007). Through this study we sought to develop a conceptualisation and
642 model of the coaching process that came from the coaches and was for coaches to
643 assist reflection and improve coaching quality.

644 One of the few models developed based on coaches' views came from Côté, et
645 al.'s (1995) study of expert high performance gymnastic coaches and was an

646 important contribution to representing variables that impact on the coaching process.
647 Côté, et al.'s (1995) broad conceptualisation, however, lacked much of the detail of
648 the process of coaching and articulates only limited appreciation of the role of the
649 athlete in the coaching process. In contrast, the coaches in the present study, rather
650 than compartmentalising coaching into organisation, training and competition,
651 described a process of planning, performing (using observation, analysis, questioning,
652 demonstrations, leadership styles), and reviewing. Thereby articulating a process
653 which other coaches and coach developers can use to frame the work they do. In
654 addition, rather than the athlete being peripheral to coaching, the coaches in the
655 present study described the development of a collaborative relationship as part of a
656 learning environment that supported learners' basic psychological needs and was
657 founded on developing caring, trusting, interpersonal relationships between coaches
658 and learners. The phases in the process and the coach-athlete relationship have been
659 noted previously, however, this study is the first to capture how coaches' view them
660 as part of their coaching process. Therefore, the coaching process described here
661 could serve as a framework for studies that examine the relationships amongst
662 components of the process rather than in isolation.

663 The coaches clearly saw value in representing the complexity of what they
664 did. The coaches were clear, however, that the model should guide rather than dictate
665 (Mallett, 2007), allowing them (and others) to interpret the components in a flexible
666 and adaptable way to meet their needs for the given occasion and context. This
667 approach shares similarities with Vygotsky's (1978) concept of scaffolding. The
668 scaffold offers guidance to coaches on what to pay attention to (e.g., personal
669 coaching philosophy, contextual constraints, the learning partnership, the learner's
670 needs) and what knowledge and skills may be required and used by both coach and

671 learner (e.g., observation, analysis, feedback, demonstrations, questions, leadership
672 styles). And yet, the scaffold does not prescribe ‘recipes’ for coaching.

673 Cassidy et al. (2004) suggested that more attention should be paid to
674 developing coaches’ critical thinking, which would allow coaches to develop their
675 own processual expert toolbox. The themes and associated model this research has
676 produced provide a framework for critical thinking. It is hoped that it will encourage
677 coaches (and coach developers) to identify the different types of knowledge and skills
678 they need to acquire/use in order to construct a different mental model of the coaching
679 process for each coaching situation encountered (Côté, Young, North & Duffy, 2007).
680 For a coach to ‘critically think’ and ‘construct their mental model of the coaching
681 process’ they must first consider their own core principles of the coaching process,
682 the philosophy that underpins what they do and how they do it. A critical foundation
683 of the model in the current study was the core principles the coaches’ identified which
684 underpinned the coaching process. These values and beliefs about the nature of
685 coaching are based on an ‘educational relationship’ as opposed to a ‘coaching
686 science’ approach (Jones, 2007). Our findings illustrate not only what coaches do but
687 also how and why they do what they do (Mallett, 2007; Potrac et al, 2000). Future
688 research should seek to better understand the differing philosophies coaches have
689 about coaching and the impact these have on the construction of the coaching process.

690 *Limitations and Future Research*

691 The study engaged six expert coaches from one coaching domain (kayaking
692 and canoeing) and focused on the coaches’ self-report of their coaching process.
693 Although this provided valuable insight into how they conceptualised their process,
694 future research might also consider other methods to corroborate the findings such as
695 observation and athletes’ perceptions. Future research should also examine the extent

696 to which the conceptualisation and model adequately capture the coaching process of
697 coaches in other domains. Is it applicable and does it have the desired outcome of
698 allowing the user (coach or coach developer) to adapt it and use it in a flexible way to
699 model his/her coaching process within their own domains? The conceptualisation and
700 model evolved on the basis of some agreed core principles of how the coaches viewed
701 ‘their world’ of coaching. The relevance of these principles to all coaching domains
702 and the impact of differing philosophies on coaches’ construction of the coaching
703 process would also be worthy of further research. The key concept in the application
704 of this conceptualisation and model is the need for the user coach to critically think
705 and from this shape the operationalisation of it to meet their needs. Although a
706 perceived strength, this non-prescriptive approach may also be a limitation. Further
707 research is needed to establish the value of this more holistic conceptualisation and
708 model that aims to guide critical thinking as opposed to a reductionist based
709 prescriptive model that gives systematic answers for the development of coaches and
710 framing connections amongst research.

711 **Conclusion**

712 Through this study we sought to examine coaches’ conceptualisations of the
713 coaching process. In keeping with recommendations of others (e.g., Cushion et al.,
714 2006; Gilbert, 2007; Greenwood et al., 2012; Jones et al., 2004) we listened to and
715 engaged coaches in the research process. In so doing, we were able to develop a
716 conceptualisation and model from coaches that is for coaches and coaching. It
717 describes the coaching process as a learning partnership between coach and learner
718 where the direction of the process is focused on the learners’ needs and the leader of
719 the process shifts between coach and learner. It provides detail about the process of
720 coaching rather than simply identifying variables that influence the process. However,

721 the model provides a guide rather than a recipe for coaching, recognising that the
722 process is complex and therefore the process needs to be flexible and adaptable.
723 Furthermore, establishing coaches' values and beliefs (philosophies about coaching)
724 was critical to understanding how the process operates in practice. We hope that it
725 provides a framework to connect research and therefore advance the profession as
726 well as connecting with coaches and coach developers to assist them to become better
727 and provide quality experiences for learners.
728

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- 846

847 Table 1. A summary of the expert coaches' experience.

Coach	Years coaching	Years holding BCU level 5 award	Number of international paddling expeditions	Published material (books, articles, DVD's)	Years selected by NGB for technical and educational support
C1	27	17	28	Yes	16
C2	38	23	20	Yes	23
C3	30	21	20	Yes	20
C4	26	13	15	Yes	12
C5	28	19	6	No	12
C6	22	15	10	No	15

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