

Examining How NCCP Competition-Development Modules Contribute to Coach Learning

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Throughout my athletic career in canoe kayak, I was privileged to have had a number of wonderful coaches. Their varying coaching styles and both their strengths and weaknesses have helped to inform my understanding of the complexities of coaching.

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## Abstract

The purpose of the present study was to explore the influence of an NCCP coach education module on coaches' ongoing learning. Using the theoretical framework of Jarvis (2006) and Moon (2004) to guide the research, this study consisted of three phases: an interview with each of the 10 coaches prior to attending a module to understand their biographies as well as various learning situations they had already experienced; attendance at one of three potential Competition-Development modules, Managing Conflict, Coaching and Leading Effectively, or Psychology of Performance, and an interview with each of the 10 coaches immediately following the module to explore their thoughts, reflections and possible learning within the module; and a third and final interview with each of the 10 coaches three months following the module to explore how they implemented learning from the module, as well as other learning situations that may have occurred within that 3 month timeframe. The findings indicated that the biographies of each of the coaches varied considerably. For example, the coaches' athletic experiences ranged from recreational to national level and several of the coaches were still active in sport at a master's level. Their formal education levels ranged from high school to completion of a university masters degree, and their ages varied from 21-45. As well, each of the coaches said they learned something from the NCCP coaching module they attended such as a more effective method for communicating with their athletes, strategies to cope better with conflict, and the importance of setting a variety of goals. The findings also indicated that a number of the coaches were open to on-going learning and stated that they would continue to enrol in formal coach education modules.

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## CHAPTER I – INTRODUCTION

The European Coaching Council defines coaching as “the guided improvement, lead by a coach, of sports participants and teams in a single sport and at identifiable stages of the athlete/sportsperson pathway” (Duffy, 2010, p. vii). Coaching is a complex and challenging profession. Coaches are responsible for technical and tactical training, yearly planning, periodization of training, injury prevention, mental/psychological training, and strength, endurance, and speed training. They are also expected to be continuously learning throughout their careers in order to improve as coaches and effectively develop their athletes (Erickson, Bruner, MacDonald & Cote, 2008; Lyle, 2007).

Over the last decade, researchers in coach learning have begun to understand that learning takes place in a number of different settings such as informal and nonformal situations, as well as formal coach education programs (Erickson, Cote, & Fraser-Thomas, 2007; Gilbert, Cote, & Mallett, 2006; Lemyre, Trudel, & Durand-Bush, 2007; Lynch & Mallett, 2006; Mallett, Trudel, Lyle, & Rynne, 2009; Werthner & Trudel, 2006, 2009). Trudel and Gilbert (2006) have examined recent changes in large-scale coaching education programs, where program developers are moving away from a novice-to-expert continuum to an approach that recognizes the necessity to develop coach-specific competencies depending on coaches’ contexts.

The large-scale coach education program in Canada is the National Coaching Certification Program (NCCP). The NCCP is governed by the Coaching Association of Canada (CAC), which has the mandate to assist National Sport Organizations (NSOs) in the development of their coaches. The CAC, through the National Coaching Certification Program (NCCP), provides the framework and standards for coach certification in Canada. The NCCP is a coach training and certification program offered to sixty-seven different sports in both official

24 languages across Canada. The NCCP courses are designed to meet the needs of all types of  
25 coaches, from novice to the national level. The NCCP is the recognized national standard for  
26 coach training and certification in Canada, ensuring that coaches are certified in order to deliver  
27 quality experiences for all levels of Canadian athletes. (CAC, 2009) The NCCP is an example of  
28 the shift to developing coach-specific competencies within specific coaching contexts as it  
29 moves to a competency-based learning program where coaches are assessed on what they can  
30 'do' rather than on what they 'know' (CAC, 2009). (See Figure 1)

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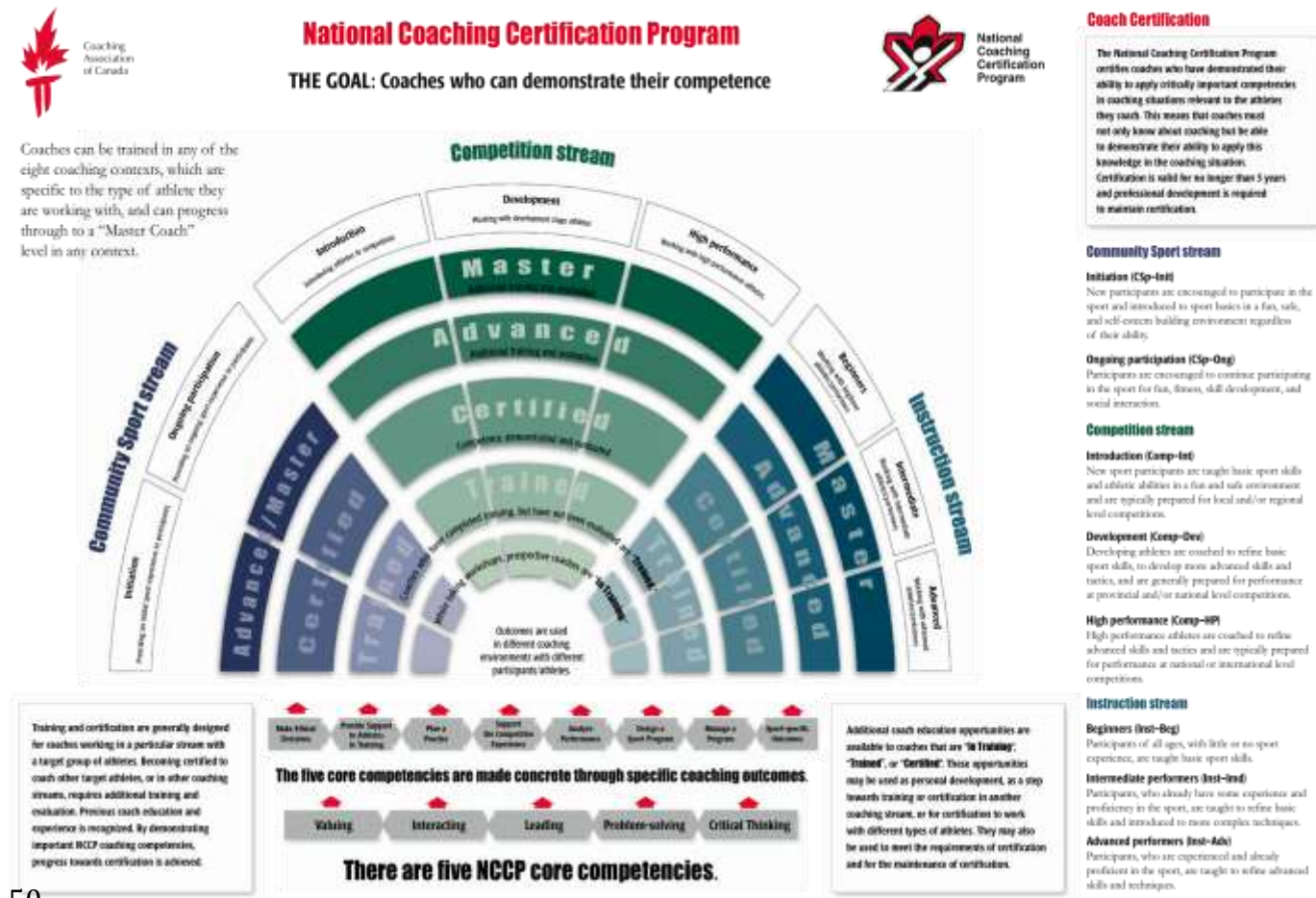
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Figure 1: The new NCCP model diagram

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57           Research on coach learning is continually growing as it is seen as an essential component  
58 for both athlete and coach development. Some research studies indicate that coach education  
59 programs are an undervalued source of coach learning, while others cite it as one of the most  
60 important sources of learning (Erickson, Cote, & Fraser-Thomas, 2007; Gilbert, Cote, & Mallett;  
61 Gilbert & Trudel, 1999; Maleté & Feltz, 2000; Trudel, Gilbert, & Werthner, 2010) Certainly,  
62 with these varying research findings, beginning to research coaching education programs with  
63 the intention of exploring how such a formal learning situation may influence ongoing learning,  
64 has the potential to contribute to our understanding of coach learning. Athletes undoubtedly  
65 benefit from coaches who can translate and incorporate theoretical models and relevant research  
66 findings into their day-to-day coaching. With that in mind, the purpose of this research study was  
67 to understand how the NCCP Competition-Development modules contribute to coaches' ongoing  
68 learning The main research question that guided the present study was: "What role does an  
69 NCCP Competition-Development module play in influencing coaches' ongoing learning?" A  
70 secondary research question was also utilized: "What other learning situations did the coaches in  
71 the study experience prior to attendance at a module and in the three months following a  
72 module?" The main contribution of this project has been to continue to advance our  
73 understanding of coach learning and contribute further to the literature on coach learning and,  
74 more specifically, coach education.

75           The remainder of this paper is divided into four chapters: (a) a review of literature, (b)  
76 the methodology utilized in the study, (c) the results, and (d) the discussion, limitations, and  
77 conclusion. The review of literature section examines the literature on learning, coach learning,  
78 and coach education. The methodology section contains a) epistemology, b) research design, and  
79 c) methods. The results section is divided into 3 phases: Phase one, the first set of interviews;

80 Phase two: attendance at one of the three modules and second set of interviews; and Phase three:  
81 the third and final set of interviews.

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## CHAPTER II – REVIEW OF THE LITERATURE

103  
104 The literature on learning, coach learning, and coach education continues to grow. In the  
105 area of how coaches learn, researchers in sport across Canada, the United States, Australia, and  
106 the United Kingdom are attempting to understand different aspects of coach learning and there is  
107 an on-going discussion concerning the proper methods of educating coaches (Bowes & Jones,  
108 2006; Cassidy, Jones, & Potrac, 2004; Gilbert & Trudel, 2001; Gould, Giannini, Krane, &  
109 Hodge, 1990; Jones & Wallace, 2005; Jones, Armour, & Potrac, 2003, 2004; Lemyre, Trudel, &  
110 Durand-Bush, 2007; Werthner & Trudel, 2006). The research in coaching has contributed to the  
111 understanding of coaches' knowledge acquisition by suggesting that coaches gain knowledge  
112 through various processes including: mentorship by other coaches (Gould, Giannini, Krane, &  
113 Hodge, 1990; Bloom, Durand-Bush, Schinke, & Salmela, 1998; Salmela, 1995), experience as  
114 athletes (Irwin, Hanton, & Kerwin, 2004; Cote, Salmela, Trudel, Baria, & Russell, 1995; Gilbert,  
115 Cote, & Mallett, 2006; Rodgers, Reade, & Hall, 2007), reflection (Jones, Armour, & Potrac,  
116 2003; Gilbert & Trudel, 2001, 2006) and formal and nonformal coach education opportunities  
117 (Gilbert, Cote, & Mallett; Gilbert & Trudel, 1999; Maleté & Feltz, 2000; Trudel, Gilbert, &  
118 Werthner, 2010). The following three sections discuss research on learning, coach learning, and  
119 coach education, specifically in relation to the Coaching Association of Canada's National  
120 Coaching Certification Program.

## A constructivist view of learning

122 Individuals experience learning situations throughout their life and learning is a complex  
123 process that incorporates both mind and body. The conceptual framework used to guide the  
124 present study comes from two learning theories - Moon's (2004) network view of learning and  
125 Jarvis' (2006) lifelong learning perspective.

126 Moon's work on learning encompasses a number of key concepts: one's cognitive  
127 structure, different types of learning situations (mediated, unmediated, and internal), and deep  
128 versus surface approaches to learning. To understand her view of learning, it is important to start  
129 with the distinction she makes between two views: the 'building a brick wall' and the 'network'.  
130 From the viewpoint of 'building a brick wall', the "teacher provides for the learner the 'bricks of  
131 knowledge'. It is assumed that the teacher knows how these will fit the pattern of the wall. The  
132 wall – knowledge – is thus built up" (Moon, 2004, p. 16). The 'network' view is that learning is  
133 a "vast but flexible network of ideas and feelings with groups of more tightly associated linked  
134 ideas and feelings" (p. 16). This network of ideas forms an individual's cognitive structure,  
135 which in turn guides their noticing and perception. An individual's cognitive structure, what is  
136 known by the learner at any one point in time, will change and adapt as the person learns in  
137 various mediated, unmediated, and internal learning situations. New material of learning can  
138 change the cognitive structure or can be changed by the cognitive structure (Moon, 2004).

139 According to Moon (2004), in mediated learning situations, such as formalized coaching  
140 courses and coaching conferences, another person designs and directs the learning. The  
141 individual learner is often more of a passive recipient of the information. In unmediated learning  
142 situations, there is no instructor and the learner takes the initiative and is responsible for  
143 choosing what to learn. For example, in sport, this could include coaches talking with other  
144 coaches, interacting and listening to their own athletes, and searching the Internet for information  
145 on training, nutrition, or psychology. The third type of learning situation, according to Moon  
146 (2004), is internal learning where there is no new material of learning but rather a  
147 reconsideration of existing ideas in an individual's cognitive structure.

148 Moon (2004) also discusses two different approaches an individual may take to learning,

149 'surface learning' and 'deep learning'. Surface learning occurs when an individual memorizes  
150 material presented to her simply in order to pass an exam. In contrast, taking a deep approach to  
151 learning is "characterized by an intention in the learner to understand the material of learning,  
152 seeking the meaning and understanding the ideas in it" (p. 59).

153 Peter Jarvis (2006, 2007, 2008, 2009), an author who has written extensively on learning,  
154 proposes a theory of human learning, which includes a lifelong learning perspective. His theory  
155 is useful in exploring the in-depth learning process of an individual. Jarvis (2006) offers the  
156 following definition of lifelong learning:

157 *The combination of processes throughout a lifetime whereby the whole person – body*  
158 *(genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions,*  
159 *beliefs and senses) – experiences social situations, the perceived content of which is then*  
160 *transformed cognitively, emotively or practically (or through any combination) and*  
161 *integrated into the individual person's biography resulting in a continually changing (or*  
162 *more experienced) person. (p. 134; italics in original)*

163 In Jarvis' (2006) view, learning is lifelong, across a time-space continuum that begins at  
164 birth and continues throughout an individual's lifetime, encompassing learning in many spheres  
165 of life (family, school, work, sport), and occurring in and outside of the educational system. An  
166 individual's life experiences, social networks, and identity all have an impact on how and what  
167 one learns.

168 Two key concepts presented in Jarvis' (2006) human learning theory are the concepts of  
169 biography and disjuncture. Biography, according to Jarvis (2006), is who we are at any point in  
170 time, and is the outcome of a lifetime of experiences. He argues that human beings are constantly  
171 being exposed to different learning opportunities and experiences and these experiences, which

172 are usually conscious, lead to learning: “Our experience occurs at the intersection of the inner  
173 self and the outer world and so learning always occurs at this point or interaction” (Jarvis, 2006,  
174 p. 7). In his most recent work, Jarvis (2009) stated that we are constructing our biography  
175 whenever we learn, and “whilst we live our biography is an unfinished product constantly  
176 undergoing change and development” (p. 25).

177 Jarvis (2009) also contends that we learn when we are faced with a ‘disjuncture’, which  
178 occurs “when our biographical repertoire is no longer sufficient to cope automatically with our  
179 perception of the situation, so that our unthinking harmony with our world is disturbed and we  
180 feel unease. We have a tension within our environment” (p. 21). A disjuncture, or ‘disharmony’,  
181 according to Jarvis (2006) creates the possibility for learning. It is at these points in life when we  
182 may choose to learn or not to learn. If we choose to learn either cognitively, emotively, or  
183 practically, a sense of harmony is restored to our lives.

184 Jarvis (2007) also writes that learning always occurs within a social context. Human beings  
185 are social and a fundamental aspect of learning is “that we always learn in a social context and  
186 that the learning processes are themselves affected by the relationships within which we  
187 function” (Jarvis, 2007, p. 20). Jarvis explains that individuals may find answers to questions by  
188 interaction with a family member in childhood, with a coach, during everyday living, or self-  
189 directed learning. Answers tend to be social constructs and individuals begin to internalise the  
190 social world through learning these social constructs. In his more recent work, Jarvis (2009)  
191 suggests that we must recognize the paradox that learning is both an individual process and a  
192 process that takes place within the wider context of society.

193 In summary, we can see that two key authors in the field of learning, Jarvis (2006, 2007,  
194 2008, 2009) and Moon (2001, 2004) share a similar perspective on learning. Similarities include

195 concepts such as cognitive structure or biography, the variety of learning situations that might be  
196 termed mediated, unmediated and internal, or formal, nonformal and informal, as well as their  
197 respective concepts of deep versus surface learning and the notion of disjuncture as a catalyst for  
198 potential learning. It is these two theorists and their conceptual frameworks that guide the present  
199 study.

### 200 Coach Learning

201 Coaches play a crucial role in an athlete or team's preparation, performance, and overall  
202 well-being. Understanding how coaches learn and develop their knowledge is a growing area of  
203 research and we are beginning to see that coaches learn in a wide variety of situations such as  
204 through personal reflection, from formal and informal mentorships, from formal education  
205 courses and specific coaching courses and clinics, from their experiences as athletes, and from  
206 interactions with other coaches, their own athletes, and with experts in sport science (Erickson,  
207 Cote, & Fraser-Thomas, 2007; Irwin, Hanton, & Kerwin, 2004; Jones, 2006; Lemyre, Trudel, &  
208 Durand-Bush, 2007; Reade, Rodgers, & Spriggs, 2008; Werthner & Trudel, 2006, 2009).

209 To date, only a few studies have looked at the process of reflection and its relationship to  
210 coach learning (Gilbert & Trudel, 2001, 2006; Knowles, Gilbourne, Borrie, & Nevill, 2001). For  
211 example, Gilbert and Trudel (2001) interviewed six youth model coaches, in the sports of hockey  
212 and soccer, about how they were developing their coaching skills. The coaches spoke of the  
213 processes they used to identify particular issues, how they articulated and experimented with  
214 various strategies to resolve the issues they faced, and how they evaluated their actions, often  
215 utilizing a process of reflection. The coaches indicated that the skill of reflection helped them  
216 throughout the process. The authors discussed these findings in relationship to Schon's (1983)  
217 concepts of reflection-in-action, reflection-on-action, and coined an additional phrase,

218 retrospective reflection-on-action. They cautioned that the six coaches in the study were  
219 identified as ‘model’ coaches by their peers, and all coaches might not reflect in the same way,  
220 or indeed, might not reflect at all.

221 Irwin, Hanton, & Kerwin (2004) interviewed 16 elite male gymnastics coaches to establish  
222 how coaching skills and methods were learned to increase their knowledge base. The authors  
223 noted that these coaches showed a high level of individuality in how they developed their  
224 coaching skills. The 16 coaches identified a number of sources of learning such as mentor  
225 coaches, trial and error experimentation, past experiences as an athlete, attending coaching  
226 courses, regional and national squad sessions, observation, use of coaching manuals, and  
227 interactions with foreign coaches, although the most common source identified in this study was  
228 mentor coaches. The coaches reported that being mentored “allowed them to transcend from an  
229 initial level of understanding to a higher level of competence” (p. 437).

230 Lemyre, Trudel, and Durand-Bush (2007) examined ways that youth sport coaches  
231 learned within formal, mediated settings, and informal learning situations. Thirty-six youth-sport  
232 coaches in ice hockey, soccer, and baseball agreed that information was acquired and learning  
233 took place through the formal NCCP coach-education program, but these coaches also indicated  
234 that their prior experiences as players or coaches provided them with sport specific knowledge.  
235 In general, the coaches in the study said that the theoretical courses had limited relevance  
236 because too much information was given in too short of a time period. However, it was found  
237 that the coaches with less experience as athletes or coaches said the coach education programs  
238 were beneficial because the courses provided them with the concrete information necessary for  
239 beginning to coach.

240 A study by Wright, Trudel and Culver (2007) interviewed 35 volunteer youth ice hockey  
241 coaches from minor hockey associations. The coaches were asked questions regarding their  
242 different learning contexts such as formal large-scale coach education programs, personal  
243 learning experiences outside of these programs beginning when they were young athletes until  
244 their actual head coaching positions, and their use of the Internet. Findings indicated seven  
245 different learning situations which included the following: large-scale coach education programs,  
246 coaching clinics/seminars, formal mentoring, books/videotapes, personal experiences related to  
247 sport, family, and work, face-to-face interactions with other coaches, and the Internet. The  
248 authors conclude that coaches learn to coach through a variety of different learning situations and  
249 coach education should include a combination of all seven learning situations, rather than  
250 focusing on one, since each situation plays a unique role in a coach's development.

251 Two recent studies have examined how university level coaches develop and learn  
252 (Erickson, Cote, & Fraser-Thomas, 2007; Reade, Rodgers, & Spriggs, 2008). Erickson et al.,  
253 (2007) interviewed ten team sport and nine individual sport coaches at the Canadian  
254 interuniversity level and found that the 19 coaches utilized their experiences as former athletes in  
255 the sport that they were currently coaching, as well as formal coaching education programs and  
256 mentorships in helping them develop as varsity coaches. Reade et al., (2008) explored how 20  
257 high performance university level coaches utilized interactions with other coaches and sport  
258 scientists, as well as their own previous athletic experiences, in order to learn. Overall, the  
259 findings showed that most of the coaches learned from a variety of coach education programs,  
260 from coaching clinics and seminars, and their athletic experience. The coaches in this study  
261 indicated that, while they felt interactions with sport scientists could contribute to new ideas for

262 their coaching, they said, in fact, that they did not learn from sport scientists or from reading  
263 scientific articles.

264 Two studies by Werthner and Trudel (2006, 2009) have taken a rather new approach to  
265 looking at coach learning. In the first study, Werthner & Trudel, (2006) using Moon's (1999,  
266 2004) generic view of learning, present a new theoretical model for understanding how coaches  
267 learn, using a case study of an elite coach to illustrate Moon's three different learning situations:  
268 mediated, unmediated and internal. The authors suggest that "rather than continuing to search for  
269 differences between coaching contexts it is becoming evident that it is more important to begin  
270 to understand the differences between coaches in a similar coaching context" (Werthner &  
271 Trudel, 2006, p. 18). They also argue that we should recognize the importance of internal  
272 learning situations for coaches as a complement to mediated and unmediated learning situations.

273 In the second study (Werthner and Trudel, 2009), 15 Canadian Olympic coaches were  
274 interviewed about the ways they learned throughout their coaching careers. This study found that  
275 even within such a similar coaching context, in this case at the Olympic level of sport, coaches  
276 learned across a variety of different situations and indeed, their individual learning paths were  
277 rather idiosyncratic. The coaches in this study shared five common learning situations: their  
278 experiences as athletes, learning from mentors, learning from their university or college degrees,  
279 participating in the NCCP courses or the National Coaching Institutes (NCI), and from 'always  
280 thinking about' or reflecting on their coaching work. However, the emphasis each of the coaches  
281 placed on these different learning situations varied widely. For example, while we know from  
282 previous research and the current study, that most coaches have been athletes themselves, one of  
283 the coaches in this study had not participated in any sport. Therefore he placed great emphasis on  
284 learning from a number of other coaches at the national level. All of the coaches did view

285 learning as a crucial component to their development and saw it as a lifelong, on-going process.

286 As a result, the authors concluded that there is not one specific way elite Canadian coaches learn

287 and that their paths of learning were idiosyncratic.

288 From these more recent studies, it is clear that coaches learn in a variety of different  
289 situations. Mallett, Trudel, Lyle, & Rynne (2009) classified coach learning as happening in  
290 formal, nonformal and informal manner which has similarities to Moon's (2004) three learning  
291 situations. A formal learning situation occurs usually within an institution where teachers follow  
292 a curriculum and the supervised learning is recognized with grades and certifications. Learning is  
293 intended to occur in formal situations within coach education programs where the learning is  
294 mediated or guided by a knowledgeable individual. Nonformal learning tends to be voluntary  
295 and shorter-term. For example, coaches may attend conferences or workshops over a week or  
296 weekend, which will contribute to their ongoing learning and allow them to apply what they have  
297 learned without being graded or supervised. Informal learning is described as learning  
298 opportunities outside of those provided under the formal coach education system and is "without  
299 the direct guidance of others" (Mallett et al., 2009, p. 328). The authors conclude that all three  
300 types of learning situations contribute to coach development and that time would be better spent  
301 working on ways to incorporate these various ways of learning into a coach's lifelong  
302 perspective and coaching education programs.

303 In summary, the current research on coach learning has shown that coaches learn to  
304 coach in a variety of different learning situations such as experiences as athletes, use of mentors,  
305 on-going reflection, formal coach education courses, nonformal coaching clinics, and dialogue  
306 with and observation of other coaches. It is clear that coaches value all these learning situations

307 and coach educators need to consider what this means in terms of their formal and nonformal  
308 coach education settings.

### 309 Coach Education

310 The term education has gained a meaning that differentiates it from the concept of learning.  
311 “Traditionally education has been regarded as the institutionalisation of learning – learning is the  
312 process which occurs in individuals and education is the social provision of the opportunities to  
313 learn (and be taught) formally” (Jarvis, 2006, p. 63). In agreement with Jarvis’ separate  
314 terminologies, Mallett et al. (2009) state that coach education is any planned or recognized  
315 teaching activity by an institution or organization that contributes to the coach’s development.

316 There has been a growth in research in coach education and indeed there is a relatively new  
317 international organization, International Council for Coach Education (ICCE) devoted to  
318 ensuring that coaches are well educated in many different parts of the world (ICCE, 2010). The  
319 ICCE is a not-for-profit, international organization whose mission is to promote coaching as an  
320 accepted profession internationally. Members of the ICCE seek to enhance the quality of  
321 coaching at every level of sport (ICCE, 2010).

322 Coach education research has primarily focused the impact and influence coach education  
323 courses have on a coach’s development (Campbell & Sullivan, 2005; Cushion, Armour, & Jones,  
324 2003; Gilbert & Trudel, 2001; Gould, Krane, Giannini, & Hodge, 1990; Lyle, 2007; Trudel et al.,  
325 2010; Vargas-Tonsing, 2007). For example, an early empirical study by Gould and colleagues  
326 (1990) surveyed 130 national team, Pan American, and Olympic coaches representing more than  
327 30 American Olympic level sports. The study focused on profiling the educational backgrounds  
328 of elite coaches and their perceived educational needs. While the findings revealed the  
329 importance of experiential knowledge and informal education in the development of these

330 coaches, the authors argued that formal coach education might facilitate the development of key  
331 coaching concepts and principles. They suggested that a comprehensive, unified coaching  
332 education system be developed in collaboration with university-based physical education  
333 programs.

334 Cushion and colleagues (2003) wrote a position paper examining the current state of  
335 coach education and assessment by drawing on research within the educational field. The article  
336 explored how coach education and continuing professional development could utilize mentoring  
337 and critical reflection to situate learning within the practical circumstances of coaching. The  
338 authors considered how coaches' experiences (both in formal and informal learning situations)  
339 could impact their professional development and practice. The paper concluded that, while  
340 coaching experience out on the field, rink, or water plays the central role in coaches' learning,  
341 without formal training provision novices would have little to no structured initiation into  
342 coaching.

343 Vargas-Tonsing (2007), investigated the opinions and preferences of 366 youth sport  
344 coaches attending an introductory coaching clinic to understand their preferences for continuing  
345 coaching education. Of the 366 coaches interviewed, 97% believed that coaching education was  
346 important, 87% felt that it should be mandatory, 84% believed coaching certification should be  
347 required, and 67% of the coaches indicated that they would pursue coach education if it were  
348 offered online. The study concluded that continuing coaching education would need to address  
349 topics such as communicating with parents and athletes, motivation, and character building in  
350 addition to standard drills; that creating more relevant topics and online availability might  
351 increase the percentage of coaches pursuing further education; and that the coaches appeared to  
352 value coaching education and certification.

353 Trudel and colleagues (2010), in a recent chapter on coach education effectiveness,  
354 examined six American and Canadian studies that investigated the impact of large-scale coach  
355 education programs. Three of the six studies focused on the development of coaching efficacy,  
356 and one of these (Campbell & Sullivan, 2005) examined Canadian coach education  
357 programming. These authors had Canadian coaches complete the Coaching Efficacy Scale (CES)  
358 before and after completing NCCP Level 1 and found that there was a significant increase in all  
359 of the four dimensions of coaching efficacy: game strategy, teaching technique, motivation, and  
360 character building. One of the studies developed a comprehensive evaluation strategy that the  
361 authors applied with one ice hockey coach (Gilbert & Trudel, 1999). Data was collected using  
362 participant observation, interviews, a knowledge test and video analysis, across practices and  
363 games and the attendance at a 22 hour level two course. The findings indicated that while the  
364 course was not delivered as designed the coach still appeared to use some of the course content  
365 in his coaching.

366 As a result of the analysis of these six studies, Trudel and colleagues (2010) state first  
367 that there is a paucity of research in this area, and second, suggest that there is another way to  
368 think about the relevance of coach education programs and the ways to effectively measure their  
369 ‘impact.’ The authors argue that Jarvis’ (2006, 2009) human learning approach would enable  
370 coach educators to begin to view learning from the learner’s, or coach’s perspective. They  
371 emphasize that coach education courses consist, at best, of only a few hours and days in a  
372 coach’s entire life of coaching and learning, and that coach educators must become aware of the  
373 many other non-formal and informal ways that coaches are learning. The authors also stress that  
374 that this does not mean that formal courses are useless – indeed they suggest that the course  
375 should still be well-designed and implemented – but they do strongly advocate that a life-long

376 learning approach would help in understanding what can and cannot be evaluated in a formal  
377 coaching course or program.

378         In relationship to the recent work of Trudel and colleagues (2010) on the effectiveness of  
379 coach education programs, Moon (2001), in her book, *Short Courses and Workshops*, examines  
380 the ways that the impact of short courses can be improved and argues that, “unless a short course  
381 has impact on what a learner can and does do after it, there is little point in its existence (p. 124).  
382 As we saw in the first section on the literature in learning, she discusses two metaphors of the  
383 brick wall view of learning and the network view of learning and states: “In the constructivist  
384 view of learning, a more useful metaphor than the brick wall is a vast but flexible network of  
385 ideas and feelings with groups of closely linked ideas/feelings” (p. 66). Moon sees the material  
386 of learning in a short course ideally as not just the accumulation of knowledge but an actual  
387 change in a participant’s cognitive structure.

388         Moon also discusses the importance of the social environment in relation to learning and  
389 suggests that, within a short course, other participants in the course may influence learning  
390 during discussions. Moon notes that learning from discussion is extremely valuable, because  
391 talking about a topic enables a learner to check his/her understanding of the topic, but also notes  
392 that discussion can be challenging and that is an example of what she calls ‘messy’ learning (p.  
393 51). She does go on to say that this sense of messiness is nevertheless a necessary and important  
394 part of learning and professional development.

395         In her book, Moon (2001) proposes five stages of learning. The first stage is noticing and  
396 is the beginning step of five that lead to deeper learning. At this stage, the facilitator of a short  
397 course would be bringing attention to the content and what the learner might want to be  
398 interested in learning. The second stage Moon calls ‘making sense’ and it is the stage where the

399 learner becomes aware of how things may start to fit together. The third stage, ‘making  
400 meaning’, is “the first of the three stages that represent deep learning” (p. 73). Finally, Moon’s  
401 latter 2 stages are ‘working with meaning’ and ‘transformative learning’ and she views  
402 transformative learning as “a more comprehensive accommodation of the cognitive structure and  
403 an ability in the learner to step outside her own and others’ processes of reasoning” (p. 75).

404 Moon’s argument for increasing the possibility for learning within a short course is based  
405 on a four-phase framework. She argues that the course or workshop should be trying to ensure  
406 that learners, or participants in a course, build from what they know presently to what they can  
407 do differently, and she calls that “building from existing practice to the new practice” (2001, p.  
408 127). The four phases are developing awareness of a learner’s current practice; clarifying new  
409 learning and how it relates to what the learner currently understands; integration of the new  
410 learning to what the learner is already doing; and imagining how the learner will actually change  
411 something and improve his or her practice.

412 In summary, it is clear that while there has been some research conducted in the area of  
413 coach education and the effectiveness of that education, there is still much work to be done. The  
414 work of Moon (2001) on the design for best impact of short courses and Trudel and colleagues  
415 (2010) on the usefulness of the lifelong learning perspective in reflecting on coaches’ learning  
416 provide us with strong perspectives to reflect more deeply on the coach learning within a formal  
417 coach education program.

418 *Coaching Association of Canada (CAC) and the National Coaching Certification Program*  
419 *(NCCP)*

420 In this section, the new Canadian coach education program will be briefly described, as  
421 well as the process of coach certification and the role of the learning facilitator. The Coaching

422 Association of Canada (CAC) is responsible for coach education in Canada and its mission is “to  
423 enhance the experiences of all Canadian athletes through quality coaching” (CAC, 2009, ¶ 2). In  
424 1974, the CAC created a nationwide coach education program, the National Coaching  
425 Certification Program. Recently the NCCP has been revised and moved to a competency-based  
426 approach where the focus is on what a coach can do rather than what a coach knows. The core  
427 competencies of coaching that are integrated into all NCCP training and evaluation activities are  
428 valuing, interacting, leading, problem solving, and critical thinking.

429         The new NCCP model is made up of three streams and a total of eight contexts, each with  
430 its own coaching requirements. The three streams in the NCCP include the Community sport  
431 stream, the Competition sport stream, and the Instruction stream. These contexts reflect the  
432 stages of athlete development. Within the Competition stream, there are three contexts that are  
433 called Introduction, Development and High Performance. Competition-Introduction provides  
434 coaches with knowledge about basic sport skills and how to create a fun and safe environment  
435 for athletes competing at the local and regional level of competition. Competition-High-  
436 Performance provides coaches who are working with national or international level athletes with  
437 knowledge about advanced skills and tactics.

438         Coaches participating in the Competition-Development context are working to develop  
439 athletes to help refine their basic sport skills and move forward to the more advanced skills and  
440 tactics. Coaches in this stream often have previous coaching experience or are former athletes in  
441 the sport and tend to work with athletes over the long term to improve performance, often in  
442 preparation for provincial or national level competitions (CAC, 2009). There are six multisport  
443 modules in the newly developed Competition-Development: leading drug-free sport, managing

444 conflict, coaching and leading effectively, psychology of performance, developing athletic  
445 abilities, and prevention and recovery. It is this stream that will be the focus of the present study.

446         The process of certifying a coach within the competency-based approach consists of three  
447 stages. The CAC website states that coaches receive NCCP coaching cards at different stages of  
448 their development. The initial status achieved by coaches who participate in any NCCP  
449 workshop will be an 'In Training' status and they will receive a card which reflects this status in  
450 a specific sport, stream, and context. When all of the requirements for training in a given sport,  
451 stream, and context are completed, coaches will receive a card indicating 'Trained', and this  
452 status will not expire. The next time coaches will receive a card is when they become 'Certified',  
453 indicating that the coach has successfully participated in a formal evaluation process and is able  
454 to demonstrate competence to the required standard level. This certification will last up to five  
455 years and in order to maintain certification, coaches will be required to participate in ongoing  
456 professional development throughout their coaching careers. If status is not maintained, coaches  
457 will be required to re-certify. Coaches have the opportunity to work in multiple sports and more  
458 than one stream and context. As well, if coaches feel they are competent, they may advance to  
459 the evaluation stage without additional training (CAC, 2009).

460         A final key component of the newly revised NCCP program is the learning facilitator  
461 (LF) who plays an important role in the teaching of the new NCCP material. Each province  
462 identifies key individuals to become LFs by the CAC selected national MLFs and they are  
463 subsequently trained to deliver the six modules at the Competition-Development level.

464         In summary, in this review of literature we have looked at the research on learning using  
465 the two perspectives of Moon (2004) and Jarvis (2006), the more recent research on how coaches  
466 learn, the research on coach education and the current format of the Canadian National Coaching

467 Certification Program (NCCP). From the more recent research in sport and coach learning, it is  
468 apparent that coaches learn in a wide variety of learning situations, ranging from formal and  
469 nonformal (mediated), informal (unmediated), and internal. Clearly, learning to coach is a  
470 complex and lifelong process. Given that lifelong learning is about being and becoming (Jarvis,  
471 2006, 2009), and a coach's involvement in a formal coach education program may be only a few  
472 days or weeks of learning, the present study considers not only the course content and episodic  
473 learning experience of the module, and what the coaches felt they learned or did not learn within  
474 the module, but also considers who the coaches were prior to taking a course (their cognitive  
475 structure), the social aspects of learning that are almost inevitably part of any coach education  
476 module, as well as any learning experiences the coaches encountered over the three months  
477 following the module.

#### 478 Personal Interest

479 While completing a Bachelor of Science in Human Kinetics at the University of Ottawa,  
480 my courses focused on anatomy, physiology, and social sciences as well as sport psychology,  
481 coaching, and sociology of sport and exercise. During my studies, I competed as a high  
482 performance athlete in the sport of canoe/kayak and in the last two years I have been coaching  
483 provincial level sprint kayak athletes. I have learned that coaching entails more than simply  
484 working with athletes on kayak technique. A considerable amount of planning, preparation,  
485 reflection, adaptability and learning takes place to be an effective coach. Reflection and listening  
486 are critical tools I am learning to use to be an effective coach. As a coach, I understand the  
487 importance and benefit of ongoing, lifelong learning and through that I am creating a wider skill  
488 set not only for myself, but also for the athletes I work with. From my personal experience, I

489 know that each athlete learns differently, and as they develop, it is important, as a coach, to be  
490 open to learning, so that I can meet their individual needs.

491           After exploring this topic in my Master's classes and through discussions with my  
492 advisor and our coaching group meetings with peers and professors, I have become fascinated  
493 with the topic and in continuing my own exploration of understanding how coaches learn and  
494 apply their knowledge when working with their athletes.

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## 512 CHAPTER III – METHODOLOGY

## 513 Epistemology

514 *Constructivism*

515 The epistemology that was used in this study is constructivism. Upon reading the literature  
516 on how coaches learn, it is clear that the past experiences of a coach significantly influence the  
517 way he or she chooses to learn. Constructivism is “an approach that posits that individuals seek  
518 understanding of the world in which they live and work by developing subjective meanings of  
519 their experiences” (Creswell, 2007, p. 20). Constructivism is the perspective through which  
520 “most contemporary qualitative researchers nourish the belief that knowledge is constructed  
521 rather than discovered” (Stake, 1995, p. 100). When put into practice, constructivism describes  
522 the process individuals undertake to create meaning. It also acknowledges the uniqueness of  
523 these constructed experiences and it is suggested, “each one’s way of making sense of the world  
524 is as valid and worthy of respect as any other” (Crotty, 2003, p. 58).

525 This research explored the influence a formal coach education module had on coaches’  
526 ongoing learning. A series of in-depth interviews were conducted with ten NCCP Competition-  
527 Development coaches prior to, immediately following, and three months after completion of a  
528 module.

## 529 Research Design

530 *Case study*

531 This research used a multiple case study approach, where the “one issue or concern is  
532 selected, but the inquirer selects multiple case studies to illustrate the issue” (Creswell, 2007,  
533 p.74). Stake (2005) states that case study research is not a methodology, but a choice of what is  
534 to be studied. By examining multiple cases, the uniqueness and commonality of each case can be

535 illustrated and reveal the different viewpoints of each case (Stake, 1995). This study garnered  
536 input, through in-depth interviews with 10 coaches, on their various ways of learning prior to,  
537 during, and after completion of a NCCP Competition-development module.

## 538 Methods

### 539 *Purpose of the Study*

540 The purpose of this research study was to understand how the NCCP Competition-  
541 Development modules contribute to coaches' ongoing learning. The main research question that  
542 guided the present study was: "What role does an NCCP Competition-Development module play  
543 in influencing a coach's ongoing learning?" A secondary research question was also utilized:  
544 "What other learning situations did the coaches in the study experience prior to attendance at a  
545 module and in the three months following a module?"

### 546 *Participants*

547 Purposeful sampling was used in this study, meaning that the inquirer selected individuals  
548 and sites for study because they can purposefully inform an understanding of the research study  
549 (Creswell, 2007). Ten coaches were selected to participate in this study. The criteria were as  
550 follows: the coach needed to be a) working with developing level athletes and (b) eligible to take  
551 part in a Competition-Development module.

### 552 *Recruitment and Consent*

553 The researcher provided the Coaches Association of Ontario (CAO) with a letter of  
554 recruitment, detailing the purpose and procedures of the study. With the help of the CAO, a list  
555 of possible modules was obtained. A list of names of coaches who were registered for each of the  
556 three modules was provided to the researcher by an organizer within the COA. Once a coach

557 agreed to be part of the study, confidentiality procedures were explained and a consent form was  
558 signed in accordance with the University of Ottawa Standard Research Ethics procedures.

### 559 *Data Collection*

560 The study encompassed three phases: Phase one was a first interview with each coach prior  
561 to taking part in a module; Phase two was attending the module and a second interview upon  
562 completion of the module; Phase three was a third interview three months after completion of the  
563 module. The interviews were semi-structured in order to create dialogue between the participant  
564 and the researcher and allowed the participants to share their thoughts and experiences regarding  
565 both their ongoing learning and learning within the module. Some of the questions asked in the  
566 first interview were: “Tell me about who you coach?” “Tell me about your experiences as an  
567 athlete” “How do you think you have learned to be a good coach?” Some of the questions asked  
568 upon completion of the module were: “What, if anything, did you learn from the module?” and  
569 “What do you think you can take and apply with your athletes?” “Was there anything you did  
570 not understand?” Some of the questions asked three months after completion of the module  
571 were: “What, if anything, have you used or done differently, as a result of the module?” and  
572 “What other ways have you been learning, or working on improving your coaching?”

### 573 *Data Analysis*

574 Case study analysis consists of creating a detailed description of the case and it’s setting  
575 (Creswell, 2007). Participant interviews were audio recorded and transcribed verbatim resulting  
576 in approximately 20 single spaced pages, on average, over the course of the three phases of  
577 interviews for each of the ten coaches. During the transcription process notes were taken to begin  
578 to identify potential codes emerging from the data (Braun & Clarke, 2006). Upon completion of

579 the three phases of interviews, each participant was asked if they wanted to review their  
580 interview transcript. Only one coach made minor changes to their transcript.

581 The next phase of analysis used Braun and Clarke's (2006) thematic analysis method,  
582 which is a "method for identifying, analyzing and reporting patterns (themes) within data"  
583 (Braun & Clarke, 2006, p. 79). Thematic analysis is comprised of six-phases, which include  
584 becoming familiar with the data, generating codes, searching for themes, reviewing the themes,  
585 defining and naming themes, and finally, producing the report. The first phase involved  
586 transcribing each interview verbatim. Each transcript was read and reread to ensure the  
587 researcher was immersed in the data and familiar with the content, making notes of any ideas or  
588 themes that emerged from the transcripts.

589 The second phase involved generating initial codes and coding as many potential patterns  
590 as possible and to "code extracts of data inclusively – i.e., keep a little of the surrounding data if  
591 relevant" (Braun & Clark, 2006, p. 89). The third phase entailed searching for themes once all of  
592 the data had been coded. This allowed the researcher to "start thinking about the relationship  
593 between codes, between themes, and between different levels of themes (i.e., main overarching  
594 themes and sub-themes within them)" (Braun & Clark, 2006, p. 89–90). Reviewing the themes,  
595 (such as formal, informal, and nonformal learning situations the ten coaches had experienced),  
596 was the next phase of analysis, which involved evaluating each theme to determine if it should  
597 be broken down to form a new theme. The fifth phase involves defining and naming themes, and  
598 further refining the themes to be generated. The final phase of thematic analysis requires the  
599 researcher to illustrate the findings in a manner that "convinces the reader of the merit and  
600 validity" of the analysis (p. 93), providing a "concise, coherent, logical, non-repetitive and

601 interesting account” (p. 93) of the data within each theme by using quotations from each  
602 participant.

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## CHAPTER IV – RESULTS

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625           The purpose of this research study was to understand how the NCCP Competition-  
626 Development modules contribute to coaches' ongoing learning. A qualitative approach was taken  
627 in an attempt to create an in-depth understanding of who the coaches were prior to attending a  
628 module, what they thought they learned from the particular module, and what learning situations  
629 they experienced and changes they made to their coaching approach three months after attending  
630 the module.

631           The results are divided into three sections, based on the phases of the study. Each of the  
632 participants underwent three in-depth interviews for this study. The first section presents the  
633 findings from the first set of interviews, which focused on who the coaches were in this study,  
634 and how they felt they had, to that point in time in their life, learned to coach. The second section  
635 presents the findings from the second set of interviews, delineating how the coaches experienced  
636 the NCCP module and what they felt they had learned from the module. The third section  
637 presents the findings from the third interview that took place approximately three months after  
638 completion of one of the modules. This third and final set of interviews explored what the  
639 coaches may have changed in their coaching approach as the result of the formal NCCP module  
640 or other learning situations they may have experienced over the three-month period following  
641 completion of the module.

## Phase One: First Set of Interviews

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643           In the first set of interviews, the questions explored who the coaches were: their formal  
644 education, their gender and age, their past athletic experiences, their experiences in coaching,  
645 and how they felt they had learned to coach (See Tables 1 and 2).

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Table 1: Coaches' biographies

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Coach	Gender	Age	Personal athletic experience	Career (inside/outside of coaching)	Years of coaching	Volunteer or paid	Sport coached	Level of athletes currently coaching
C1	Male	45	-High School basketball -Recreational soccer	Project Manager	5	volunteer	Soccer	-11 year old boys -old timers men's soccer
C2	Male	45	-High school football -Recreational soccer	IT/Home Depot associate	4	volunteer	Soccer	-10 year old girls premier
C3	Female	43	-National and Pan American field hockey	Federal Government	18	volunteer	Field Hockey	-U14, U16 Provincial girls
C4	Female	29	-National and international ringette -University Rugby	School teacher	14	volunteer	Ringette	-AAA Canada Games -AA Jr, U16
C5	Male	23	-National and international sailing	Provincial sailing coach (Ontario)	3	paid	Sailing	-Provincial level
C6	Male	45	-Recreational soccer	Hotel server	16	volunteer	Soccer	-old timers rec. league
C7	Male	28	-National, Pan American, international canoe kayak	Canoe Club coach	8	paid	Canoe Kayak	-provincial level athletes
C8	Female	25	-Canada Games team, national level canoe kayak	Canoe Club coach	5	paid	Canoe Kayak	-U14 boys and girls
C9	Male	21	-National level canoe kayak	Canoe club coach/student	5	paid	Canoe Kayak	-novice masters (25+)
C10	Male	32	-Professional soccer	Soccer coach	15	paid	Soccer	6-18 year old boys and girls

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Table 2: Coaches' learning situations

Coach	Formal Education	Informal learning situations	Nonformal learning situations	Competition Development module attended	Other NCCP courses attended
C1	Electrical Engineer, Carleton University	-subscription to Success in Soccer magazine -articles on coaching -Internet -mentor	-weekly coaching clinics	Managing Conflict	-Competition Introduction Part A and B -Competition-Development module Developing Athletic Ability -various other courses
C2	Sports Medicine, Springfield College	-pamphlets on coaching	-coaching clinics	Managing Conflict	-no NCCP courses prior to MC
C3	Bachelor of Science in Food and Nutrition, University of Alberta	-mentor, field hockey coach -books on leadership -Internet websites on drills -reflection on athletic experience	-no nonformal courses	Coaching and Leading Effectively	-old level 1, 2, 3 -Competition-Development modules DAA
C4	-Bachelor of Science in Human Kinetics, University of Ottawa -Bachelor of Education, Brock University	-mentor -reflection on athletic experience	-courses	Coaching and Leading Effectively	-level 1, 2 -Competition Development modules: DAA, MC, CLE, LDFS, PP
C5	-Kinesiology and Business, University of Western	-mentors -virtual coach online -reflection -observing national and international coaches -reflection on athletic experience	-no nonformal learning	Coaching and Leading Effectively	-level 1 -Competition-Development modules: DAA, PAI, -first level for Ontario Yatching Association
C6	-highschool in Poland -some university courses in Canada	-2 mentors: national B license soccer coaches -books	-clinics and coaching sessions	Coaching and Leading Effectively	-level 1, 2 -Competition-Development modules DAA, CLE, MC, LDFS, PP, PAI
C7	-completing Bachelor of Sociology, McMaster University	-mentor: father -reflection on athletic experience -reflection on previous coaching -internet	-coaching clinics	Psychology of Performance	-level 1 -pilot for Competition Development
C8	-Bachelor of Arts, Carleton University -Bachelor of Education, Queen's University	-books -mentor: provincial canoe kayak coach	-no nonformal learning	Psychology of Performance	-level 1
C9	-completing degree in Commerce with concentration in Accounting, Carleton University	-mentor: provincial canoe kayak coach -books -athletic experience	-no nonformal learning	Psychology of Performance	-level 1
C10	-Psychology, minor in business and physical education, Houghton College, NY -Masters sport management, University of Ottawa	-reading books -internet looking for drills -talking to coaches and athletes.	-soccer courses -A license Canadian Soccer Association	Psychology of Performance	-old level 1, 2, 3

662 \*MC = Managing Conflict

663 \*CLE = Coaching and Leading Effectively

664 \*PAI = Prevention of Athletic Injuries

\*DAA = Developing Athletic Abilities

\*LDFS = Leading Drug Free Sport

\*PP = Psychology of Performance

665 *The coaches' biographies*

666 Ten coaches, from the sports of soccer, canoe/kayak, sailing, ringette, and field hockey  
667 participated in this study. There were seven male coaches and three female coaches, ranging in  
668 age from 21-45 years. Five of the coaches were paid while the other five were volunteer coaches.  
669 There were a number of different ways that the coaches became involved in coaching. Four of  
670 the ten coaches started coaching because their child began playing sport. As one coach said "I  
671 started coaching when my oldest son started playing soccer" (C1). Four coaches began coaching  
672 while they were still athletes. For example, the field hockey coach was asked to coach a local  
673 high school team while she was still a member of the national team. She and her husband took on  
674 the task of coaching that team together, and after the first year, she continued coaching on her  
675 own (C3). The other two coaches were inspired to coach because of great coaches they had  
676 worked with when they were athletes.

677 All of the coaches in this study had participated in sport, ranging from the recreational and  
678 high school level to the provincial and national level. In discussing their varying levels of athletic  
679 experiences, one coach, who competed up to the national level, said, "with kayaking, I've raced  
680 at the national level, and I have competed at the Pan Am Games and Pan Am Championships a  
681 few times" (C7). Another coach stated, "I played on the provincial team when I was 16 and I  
682 played university field hockey and was with the National Team for the Pan American Games"  
683 (C3). One of the four soccer coaches said, "I played basketball in high school and since then  
684 have played pick-up soccer" (C1). Interestingly, one of the coach participants was still active in  
685 sport: "I'm currently a member of the National team for ringette, and this is the third time I've  
686 been on the World Championships team" (C4). Another coach who was active in sports when he

687 was in high school said that he still “plays pick up hockey once in a while and goes to the gym  
688 but not at a high level at all” (C2).

689 The coaches’ formal education ranged from a high school diploma to a university master’s  
690 degree, and all but one coach had completed some of their NCCP levels. The undergraduate  
691 degrees were in electrical engineering, sociology, human kinetics, psychology, arts, education,  
692 nutrition, and sports medicine. Nine of the ten coaches had completed their level 1 certification  
693 and coach training through the National Coaching Certification Program (see Table 3). For one  
694 of the coaches, the Competition-Development module on Managing Conflict was his first formal  
695 coaching course.

696 *Learning situations prior to attendance at a NCCP Module*

697 Each of the ten coaches was asked about the various ways they had learned to coach.  
698 There was a wide range of learning situations discussed: formal, nonformal, and informal  
699 learning. In terms of formal learning situations, the nine coaches who had attended previous  
700 NCCP coaching courses spoke about what they had learned in those courses. For example, one  
701 of the soccer coaches felt the coaching courses had a positive influence on his coaching  
702 development:

703 Every one of the courses has taught me different things. At the beginning you’re just  
704 learning drills when you first start your soccer license. You learn how to deal with  
705 parents, and the role of a coach as a leader, as a teacher, as a counselor. You learn all of  
706 these things because going in you don’t really realize that you have such a huge role to  
707 play. When you’re coaching you start to think about the ways you speak to the kids, what  
708 you should and shouldn’t say, how you approach a training session, how you prepare for  
709 a training session. (C10)

710 The ringette coach explained how several of the coaching courses reinforced what she  
711 was doing:

712 I think one of the main things that you walk away with is the reassurance that other  
713 coaches are doing the same things are you are, and how it's important that the goals of  
714 the young people you are developing are kept at the forefront - I think taking these  
715 courses helps to reinforce that message. (C4)

716 A sailing coach with a degree in kinesiology, spoke specifically of the module on  
717 Prevention of Athletic Injuries saying, "I think the biggest thing was learning how to taper  
718 training leading up to and after competition. We also talked about periodization which was a new  
719 thing for me" (C5).

720 Six of the ten coaches spoke about coaching clinics (nonformal) they had attended that  
721 they found useful in developing as a coach. Three of the coaches in this study were involved with  
722 the same soccer association that offered free coach development through weekly coaching  
723 clinics. One of the soccer coaches was actually in charge of running the weekly soccer coaching  
724 clinics. Another coach, who took one of the clinics run by a national level coach, felt he learned  
725 that it was important to keep things simple in terms of explaining the drills and evaluating  
726 performances. He added, "the clinics helps to deal with coaching issues between the coach and  
727 player. You need to spend time to learn, so I go to the clinics and practice with other coaches,  
728 and listen to what they have to say" (C6). Similarly, the third soccer coach who attended the  
729 same coaching clinics, said, "these are clinics that introduce coaches to basic fundamentals of  
730 soccer and even more importantly show us the best way to teach these skills to the kids" (C1).  
731 The same coach continued by commenting on the benefit of completing a referee course:

732 It helped me in my coaching because I have a better understanding of the rules of the  
733 game now and the more I think of it, it's a good conflict management tool so that I don't  
734 get into so much conflict with the referees! Now I can see the side that they're coming  
735 from. There were a bunch of rules that surprised me and I thought 'wow I didn't know  
736 that.' (C1)

737 Each of the three soccer coaches also mentioned that they learned helpful warm up drills  
738 for soccer practices in the weekly soccer clinics. One coach explained:

739 I learned a great game warm up from one of these sessions that teaches the kids to open  
740 up and have their body always facing the field. There's a game where you have 3 players  
741 and the middle guy always has to avoid having his back seen by the other 2 players and  
742 they have to move in certain areas. (C1)

743 In terms of informal learning situations, the coaches spoke of situations such as observing  
744 and talking with other coaches, their own athletic experiences, informal mentoring situations,  
745 and their use of reflection. For example, all of the coaches in this study spoke of the importance  
746 of observing and talking with other coaches. One of the canoe/kayak coaches explained that he  
747 observed other coaches and took the good and the bad from various coaches. He said, "along  
748 with my own experience, for example, I have seen one coach push athletes a lot - he would  
749 identify specific athletes he thought could improve their technique and push them during practice  
750 all the time" (C9). He added, from a reflection as an athlete:

751 The lesson for me has been identifying what your athlete can handle and listening to the  
752 athlete. I was an athlete for a long time myself and I've had a lot of different coaches who  
753 have had different philosophies and I've kind of absorbed the things I've liked from  
754 coaches, things I haven't liked I let go. (C9)

755           The field hockey coach spoke of her university coach who had an influence  
756 on her learning to be a good coach:

757           She was probably the best coach I had. She let us think outside the box, while  
758 she still taught us all the skills. She let us be creative and yet she made sure  
759 that we were on the right track - she let us play with a free spirit on the field.

760           (C3)

761           While these coaches talked about the relevance of observing and talking with other  
762 coaches, they also talked about how their own athletic experiences had influenced their coaching  
763 approach. A successful kayak athlete turned coach explained how his own experiences as an  
764 athlete helped with coaching decisions:

765           Some of my coaching is sort of reflecting on my experience as an athlete and what I went  
766 through. For example, when I'm writing a program, I can go through and read the manual  
767 on how much rest is recommended etc, but now I almost always reflect on how it worked  
768 for me. I can put myself in that situation doing that workout and project how that's  
769 actually going to end up feeling on the water and make adjustments from there. (C7)

770           As we can see from the above quote, reflection also played a role in some of the coaches'  
771 learning. Another example came from the ringette coach who talked about her process of  
772 reflecting on different individuals who had been influential in her life, and how they had instilled  
773 the passion she has for helping others, and ultimately directing her to teaching and coaching:

774           I've grown up with good leaders around me. I had some good teachers who were positive  
775 influences on me. I've certainly had not so good coaches, and you take important lessons  
776 out of those experiences and hopefully filter out the bad stuff. The national team coach  
777 has inspired me – watching how she works with the team and the players. That is

778 something I'd like to take on in my own coaching roles. One coach that I had in high  
779 school was so great and brought out all the good qualities and made you want to be a  
780 good leader and a strong performer. (C4)

781 In the course of this first interview, the coaches were asked if they had ever had anyone  
782 as either an informal or formal mentor, and eight of the ten coaches responded yes to having an  
783 informal mentor. For example, the provincial sailing coach said:

784 I'm just starting right now to work with some Olympic level athletes, and to go to some  
785 international competitions, and I have been spending time with one of the national  
786 coaches – and learning about training about being on the water as much as you can -  
787 fitness and nutrition are important but on the water – that is where the competition is  
788 going to happen- so that is one the biggest thing I think I've learned so far from him. (C5)

789 A club coach who works with canoe/kayak athletes training to compete at a national level  
790 explained how his father is a mentor for him:

791 My dad is a bit of a mentor for me. He was a huge coaching presence when I was  
792 developing and he sort of sets the model for the style of coaching that I've developed –  
793 not that I try to completely copy it, but it's definitely the framework that I'm working  
794 from. (C7)

795 An elite ringette player and coach, who is also a school teacher, spoke of the importance  
796 of having a mentor:

797 I think I've had a few mentors. One of the coaches that I had when I was just coming out  
798 of my teenage years - she was the Canada Games coach with us, she taught me a lot  
799 about developing confidence in myself. I'm currently working with one coach now who  
800 been a positive influence in helping me and guiding me along in terms of coaching. We

801 talk through scenarios and now I have developed the confidence to make decisions on my  
802 own versus always saying ‘you make the decision.’ For a long time, I’d been preparing  
803 all the practices and developing the season plan but he was the head coach and I felt like I  
804 had to go to him and ask him. But now he has said ‘you’re the coach, you can make the  
805 decision.’ He’s been a mentor for sure. (C4)

806 In summary, the ten coaches each exhibited different biographies relating to their varying  
807 levels of formal education, their sport and coaching experiences, and the different learning  
808 situations they had experienced to date. The coaches spoke of learning in formal learning  
809 situations such as NCCP modules, in nonformal situations such as coaching clinics, and in  
810 informal learning situations such as talking with and observing other coaches, and reflecting on  
811 those and other experiences.

812

813 Phase Two: The NCCP Competition-Development Modules and the second set of interviews

814 The three NCCP Competition-Development modules that were part of the current study  
815 were Managing Conflict (4 ½ hour module attended by two of the coaches on February 24<sup>th</sup>,  
816 2010), Leading Effectively (10 hour module attended by four coaches on March 27<sup>th</sup> and 28<sup>th</sup>,  
817 2010), and Performance Psychology (7 hour module attended by four coaches on June 6<sup>th</sup>, 2010).

818 It was by chance that the same learning facilitator conducted all three modules.

819 *Observation of the module being delivered*

820 As the researcher I attended each of the three NCCP modules and observed the coaches’  
821 interactions with each other, both during the actual course and at the breaks and lunch period. A  
822 few of the coaches came to the course with a fellow coach they worked with and, if that was the  
823 case, they tended to interact with them throughout the day.

824           Interestingly, by the end of each course, most of the coaches appeared comfortable with  
825 each other and talked freely to a variety of coaches in the module. Two of the coaches, the  
826 ringette coach and one of the soccer coaches, attended all three of the modules and became  
827 familiar with one another. During the lunch period, while some coaches were quiet, others spoke  
828 with each other about their sport and their athletes. In each of the modules, contact with the LF  
829 appeared to only take place during instructional time in the group setting.

830 *The second interview*

831           The purpose of this phase of the research was to gain an understanding of the learning  
832 that may or may not have taken place during the module, as well as to explore what learning  
833 might have taken place from social interactions during the module. This second set of interviews  
834 was conducted with each of the ten coaches in the week following the module. The questions  
835 centered on what occurred in the module – what they found useful, what they thought they might  
836 use in their coaching, what they might not have understood, and what they might have not found  
837 useful.

838           In reflecting on what they had learned in the Psychology of Performance module, the four  
839 coaches spoke about being reminded of doing better goal setting, more detailed race plans, better  
840 debriefs with their athletes, and learning more about the concept of focus. As one of the kayak  
841 coaches said:

842           One of the main things, again this is in the refresher vein, was I started reflecting about  
843 all the stuff we talked about and my post-competition review of goals probably wasn't  
844 getting done well enough. Setting goals for long-term and for specific regattas was being  
845 done but the review of those goals immediately afterwards was probably lacking and not

846 where it should be. That was something I realized from the discussions that we were  
847 having, and I started thinking ‘ok, we should probably correct that.’ (C7)

848 Another canoe/kayak coach felt she learned strategies for getting her young athletes to  
849 talk more freely after races:

850 Debriefing is just a matter of getting the athlete to talk a little bit more after the race  
851 saying what was good, what they could have improved upon, making sure not to ask ‘yes  
852 or no’ questions, you have to probe a little bit. Even getting the athlete’s to write things  
853 down would be good. Having a discussion with them is important and getting them to be  
854 really clear and reflect on their race so that you can work on certain aspects - just  
855 listening to them. (C8)

856 A third canoe/kayak coach, whose athletes were beginner adults, felt he learned  
857 something about creating effective race plans. He had always adjusted his race plans on race day,  
858 but also thought it was ok for athletes to change their plan while in mid-race. After a long  
859 discussion with the facilitator and the group of coach participants, he noted that “it was discussed  
860 that you can never make good decisions when you’re exhausted and so changing a plan at mid-  
861 point in a race is not going to be a good idea. So, that was one thing that changed my mind a  
862 little bit” (C9). Another aspect of the course he found helpful was related to communicating with  
863 his athletes, and he added that part of this learning came from a coach in the course:

864 I think I see how I have to talk with the athletes in a different manner now. Instead of  
865 telling them that their top arm needs to be straight or they need to rotate more, I will ask  
866 them how it feels, and I will ask them to go through the motions. I want them to know  
867 what muscles they feel – I actually picked that up from the basketball coach – he said

868 they walk the athletes through and get them to analyse where their knee was, what foot  
869 they're pushing off of. (C9)

870 A soccer coach with a Master's degree in sport management and an A license  
871 certification in soccer said he learned about debriefing and a bit more about the skill of focus. He  
872 explained:

873 When you're debriefing you want to figure out 'what, when, where, how' – that was  
874 good, and also the broad focus, I remember I was able to relate that to my players. I  
875 remember something about being focused internally...I'd like to talk to the defenders as a  
876 unit, and the strikers as a unit to make sure everyone was using a narrow focus, and  
877 individually there's 11 players on the field and in the game if I give each player a task...I  
878 guess I learned a lot actually! (C10)

879 In the module on Coaching and Leading Effectively, the four coaches interviewed for this  
880 module spoke of learning about the importance of the skills of listening, being clear when  
881 speaking, and facilitation, and also about how they personally reacted when they found  
882 themselves in leadership positions. The provincial sailing coach felt he learned something about  
883 confidence and listening skills:

884 I felt it was really useful how the course went over how to be a good presenter of skills.  
885 The course drilled the confidence thing – you need to be confident when you speak and  
886 the way you approach people and hit on the point. And you need to be a good listener and  
887 you need to feel empathy at certain points, which I hadn't been doing in the past. (C5)

888 The ringette coach said she enjoyed the communication section of this module:  
889 Part of the course was about clear messages - how to speak to certain people so that you  
890 can communicate clearly what your ideas are so that there will be less problems later. Just

891 reviewing the difference between listening to someone and listening empathetically that  
892 was one thing that came up. It wasn't something I had never heard before but I thought it  
893 was good, just practicing in an isolated situation. (C4)

894 This same coach also felt she learned about herself from attending a number of NCCP  
895 modules. For example, in the Coaching and Leading Effectively module she felt she learned that,  
896 while being passionate was still important, learning how to be calm was crucial to coaching  
897 successfully:

898 I like to think that I'm pretty calm and collected, but here I learned I'm really not. The  
899 other day, in another module, Leading Drug Free Sport module, I got pretty worked up. I  
900 could see myself getting emotional and it was as if this other coach was egging me on. So  
901 I see that I get very emotional about things and that's something I should probably work  
902 on. If I had the 'I see, I hear, I feel' strategy from Coaching and Leading Effectively it  
903 would have helped - and I think it will. (C4)

904 She continued by saying that she wanted to work on being more confident when giving  
905 instruction to others, whether players, parents or other coaches:

906 I want to be able to be vulnerable around them but to be honest; I think that it is  
907 something that will take me a little bit more time as a coach. Some coaches just open up  
908 to other players, I'm not like that - it takes me a while. So, if I see an opportunity,  
909 hopefully I will recognize it, and I hope I'm sure of myself that I can just go and take  
910 advantage of the situation. (C4)

911 One of the coaches who attended this module remembered that facilitation could be  
912 helpful when working with athletes, and the course helped him understand how to do that:

913           When I went to several coaching clinics, the national coaches asked us to facilitate a little  
914           more, to step aside and let the players figure out how to handle certain situations on the  
915           field – and this course certainly added to how we might do that well. (C6)

916           In the module of Managing Conflict, the two coaches who attended spoke about strategic  
917           ways of preventing conflict and the importance of staying calm. For example, one of the coaches  
918           spoke of realizing the value of waiting 24 hours before reacting to what a parent or another coach  
919           may have said and was keen on applying that strategy to his coaching routine when necessary.

920           The coaches were also asked whether they learned anything from the group discussions  
921           that took place during the modules. A number of the coaches commented favorably on the value  
922           of the discussions. For example, one of the soccer coaches who attended the Managing Conflict  
923           module answered:

924           Yes, in one instance we were doing the role-playing and a question came up in terms of  
925           the communication and the way of speaking. There was a coach present who introduced  
926           us to something called the ‘WIN’ concept - when you’re talking to someone in a conflict  
927           situation you can use this concept saying ‘when I hear you doing this, then I feel this or  
928           think this, and the N stands for the ‘need’ and I need you to do this.’ (C1)

929           One of the canoe/kayak coaches said that he found a strategy for staying focused,  
930           suggested by another coach, as particularly useful:

931           In our discussion on focus she explained that if one of your athletes came to practice and  
932           was having a really bad day, rather than letting the athlete talk about it and it affecting her  
933           training, you get her to either write it down on a piece of paper and physically put it in a  
934           box, or just have her visualize putting away that bad day and knowing that you can come

935 back to it after practice but just thinking ‘you want to have another focus for the next 2  
936 hours’. She said it was something that worked especially well with teenagers. (C8)

937 Several coaches claimed that the module content confirmed what they already knew. The  
938 field hockey coach said that while she learned a couple of things, the main thing she learned is  
939 that she knew more than she previously thought she did. Another coach explained that the  
940 content of the Managing Conflict module was a good confirmation of what he already  
941 instinctively knew, stating, “I had a gut feeling about a lot of the content presented so it’s good to  
942 see that there’s some study behind it. It appears that I’ve been on the right course and it was good  
943 to learn about some of the strategies for dealing with people in a conflict situation.” (C1)

944 The sailing coach stated, “one thing in particular the group discussed was the importance  
945 of staying calm when dealing with an emotional athlete” (C5). One of the kayak coaches said:

946 I generally knew most of what was discussed and have applied the methods throughout  
947 my coaching. Most of the areas discussed, like focus and goal setting, felt more like a  
948 reminder of what I should be doing as a coach rather than new material. However, the  
949 class itself was useful because being reminded of these things, things that are simple and  
950 should be common sense, is necessary. (C8)

951 Four of the coaches commented on the course content of the modules, either mentioning  
952 there were concepts they did not really understand, or making suggestions for improvement. For  
953 example, one of the coaches said he did not understand the concept of intervention, as it was  
954 used in the module on Coaching and Leading Effectively, saying, “I guess I still don’t have a  
955 clear idea on what an intervention is, so maybe that part could have been explained better.” (C3)  
956 Another coach suggested that there could have been more specific examples in the Psychology of  
957 Performance module, on how to actually ensure athletes were well prepared:

958 I'd still like to see specific tactics or exercises that athletes could use to condition specific  
959 psychological responses in themselves. For example, how could athletes mentally deal  
960 with fatigue? Or under performance? Or performance pressure? Specific case examples  
961 would be really good, and a way to teach the athletes what they should be doing, and how  
962 to train themselves to do it. But perhaps this course does not have the time to devote to it.  
963 (C7)

964 Finally, one of the coaches who was a volunteer and a parent, who had nearly completed  
965 all six Competition-Development modules, felt he had learned a great deal:

966 I would recommend Coaching and Leading Effectively to other coaches. There are a lot  
967 of things to learn and we have to appreciate that you can actually learn new things about  
968 leadership that will help you as a coach, and help your athletes to achieve their goals.  
969 (C6)

970 This second set of interviews was conducted to gain a better understanding of the  
971 learning that took place during the module, as well as to understand what the coaches may have  
972 learned from other coaches in the group discussion, or informally, and to identify any areas of  
973 misunderstanding in terms of the content. As we have seen, the coaches spoke of a variety of  
974 different learning moments within the modules, as well as learning from other coaches. They  
975 also indicated a few moments where they had been confused by the content, and several offered  
976 suggestions for improvement of the module.

977 *Learning facilitator of the modules*

978 The three NCCP modules in the present study, Managing Conflict, Coaching and Leading  
979 Effectively, and Psychology of Performance, were all lead by the same learning facilitator (LF).  
980 During the second interview following the module, each coach was asked if there was anything

981 the LF had done to help facilitate his or her learning. All ten coaches were positive about the LF.

982 One of the coaches felt the LF provided a perfect example on how to coach and lead effectively:

983 She spoke very clearly, and she was a very nice, open person, easy to approach. She  
984 never rejected anyone's answers so I felt throughout the course it became easier to speak  
985 because you knew she would never say 'that's the wrong answer' and shut you off. She  
986 projected herself very well and she was confident in what she was saying so it was easy  
987 to keep my attention. (C5)

988 Another coach reflected on the role of the LF, and tied her skill of facilitation into the topic of  
989 being an effective leader:

990 It was interesting that she kept reinforcing what her job was – that she was a facilitator.  
991 She kept saying 'I'm here to facilitate, I'm not here to tell you what to do.' As a coach  
992 you don't necessarily tell the kids what to do but you let them do it. I mentioned it last  
993 time that one of the coaches I had, she let us be free spirits, and she would give us the  
994 tools and say 'ok go do it'. That's what the LF was doing. She was there to guide us and  
995 give us time to practice with drills but she would say 'you are here to do it yourself' - that  
996 was interesting for her to say that. (C3)

997 Another coach recognized that the way the course and activities were organized was to  
998 ensure coaches were conversing and sharing ideas with coaches from other sports. This coach  
999 also commented on ways the facilitator helped her think outside the box:

1000 The learning facilitator asked questions and when you answered them she wouldn't  
1001 necessarily agree or disagree, she was just trying to get you to explain it and then try to  
1002 repeat back to yourself. I thought that was a pretty good way. I like to think that I'm right

1003 when I answer but I liked that she didn't say 'you're right' or 'no, I don't agree with you,  
1004 you're wrong.' She didn't judge. It was pretty free flowing ideas I think. (C4)

1005 One of the canoe/kayak coaches stated that the LF was very helpful throughout the  
1006 Psychology of Performance module particularly during the group discussions:

1007 Coaches were organized into groups to practice visualization, and we felt quite  
1008 uncomfortable doing it and she reassured us by saying 'yes it's going to be uncomfortable  
1009 but if you don't do it, how do you expect your athletes to do it? And when we were doing  
1010 individual work, she would come around and listen to what we were saying and  
1011 sometimes she would question us by asking 'what did you mean by this concept', or add  
1012 a 'that's interesting', and sometimes she would bring it up to the whole group but not in a  
1013 way that was embarrassing or anything. She was very nice and she did a good job. (C8)

1014

1015 Phase Three: Third interview with the coaches

1016 The third and final interviews were conducted with each of the coaches three months  
1017 after their attendance at a Competition-Development module. The purpose of the final interview  
1018 was twofold: first, to gain an understanding of what the coaches may have done differently, in  
1019 terms of their coaching, particularly connected to the material of learning in the module, and  
1020 second, to explore any other learning situations they may have encountered in that three-month  
1021 time frame (See Table 3).

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Table 3: Changes coaches made to their coaching practice

Coach	NCCP Competition-Development module attended	Sport	Changes made to coaching practice as result of the module	Other learning situations, between second and third interview
C1	Managing Conflict	Soccer	Learned strategies for how to manage conflict when communicating with parents, other coaches: "one of the things that I learned in the course was to hold off a bit before responding in the passion of the moment"	Soccer coaching clinics: learned drills to use in coaching U11 boys soccer – fun and vocal.
C2	Managing Conflict	Soccer	No change in coaching practice.	Found drills on the internet. Attended Parmar soccer 'skill school' - learned drills to control the soccer ball better.
C3	Coaching and Leading Effectively	Field hockey	Learned effective communication skills: ensuring players understand the drills completely before going on the field to play. "I'm learning to understand how they learn best." Learned how to delegate and manage her time - found a team manager immediately.	NCCP module: Psychology of Performance and Leading Drug Free Sport. Reading books, talking with other coaches – specifically about training programs.
C4	Coaching and Leading Effectively	Ringette	Learned how to give effective feedback to athletes. Learned how to facilitate a discussion effectively "Asking more questions instead of just giving my opinion or advice, remembering to get them to open up as much as they can because that's going to give you information you want". Learned about myself: "well I know I get very emotional when I'm invested in something".	NCCP Psychology of Performance module: what mental performance skills to use. Read papers on how to lead a team and integrate kids of all learning levels.
C5	Coaching and Leading Effectively	Sailing	Learned the importance of leading by example: having fun, giving short and concise feedback. The importance of "listening to parents and athletes, just being that set of ears".	Informal mentoring - working closely with a past Olympian, Informal: learned video analysis.
C6	Coaching and Leading Effectively	Soccer	Learned how to communicate more effectively on the soccer field with players. "I actually used 'I see, I think, I feel, I need' with my players.	NCCP module Psychology of Performance and Leading Drug Free Sport. Clinics offered by the Canadian Soccer Association. Watched 5-6 professional games.
C7	Psychology of Performance	Canoe kayak	Learned how to set goals and specifically assess in debriefing – "this was the biggest and most concrete addition to what I've been changing and doing – what goals were met, what weren't and why.	Informal mentoring, learning the best sequence to develop athletes, key fundamental elements. Reflection on previous athletic experiences.
C8	Psychology of Performance	Canoe kayak	Learning how to debrief. Learning how to delegate.	Informal discussions with other coaches about creative program ideas for next season.
C9	Psychology of Performance	Canoe kayak	No change in coaching practice - time constraints.	Talking with other coaches on technique. Gathering information from the Internet
C10	Psychology of Performance	Soccer	No change in coaching practice – currently not involved with a specific team. Some unanswered questions: how to get the most out of your players, when to push them and when not to.	Reflection on how to get the most out of the players without raising my voice.

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1030 *Exploring what coaches changed in their coaching practice*

1031           In general the responses of the coaches were mixed in terms of what they had learned and  
1032 changed in their coaching as a result of participating in a NCCP Competition-Development  
1033 module. Three of the coaches made few, if any changes, while several coaches spoke of  
1034 immediately incorporating new techniques and strategies into their practices with their athletes.  
1035 Interestingly, all ten coaches noted that in each of the modules the topic of communicating  
1036 effectively with parents was discussed and they all felt they learned strategies on how to cope  
1037 with parents, or they confirmed their current interactions with parents were effective. For  
1038 example, one of the coaches in canoe/kayak, who attended the Psychology of Performance  
1039 module, spoke of learning about the importance of listening to the parents when dealing with a  
1040 conflict.

1041           It's been a tough summer in terms of parent's attitudes towards coaches and the selection  
1042 process. Parents feel the need to be too involved with crew boat selection and their stress  
1043 levels at regattas are way too high - we've noticed how it affects their children. I've had a  
1044 couple of difficult conversations with some parents but I've managed to maintain a good  
1045 relationship with them. I really just listen to them. I thank them for their input and I try to  
1046 explain to them that although they have good ideas, it's not up to them. The course really  
1047 confirmed that what I was doing was good. (C8)

1048           Similar to the canoe/kayak coach, a young provincial sailing coach who attended  
1049 Coaching and Leading Effectively spoke of how the course confirmed his approach for dealing  
1050 with parents:

1051           Just being the extra set of ears and it is key to just listen to what the parents' concerns are.  
1052           I think a lot of people don't take the time to realize the parents' side of it. I think that is

1053 just one thing I've learned is to just listen before I speak – and that was confirmed in the  
1054 module. (C5)

1055 In looking first at some of the changes made by the coaches, seven of the coaches  
1056 commented on changes they made to their coaching routine that was learned from the module.  
1057 One of the coaches who attended the Psychology of Performance module began using the skill of  
1058 debriefing with her provincial level athletes in canoe/kayak:

1059 After every race, either myself or another coach debriefed the athletes. We would get  
1060 them to talk about their races - that's what we've been working on. The athletes are  
1061 starting to get into the habit now and the parents have actually noticed it as well. (C8)

1062 Another coach who attended the same module also made a concerted effort in providing  
1063 feedback in a different way to her ringette athletes:

1064 In the past, at training camps, I would be constantly cueing them all the time while  
1065 they're trying to learn a new skill and I remembered from the module that might not be  
1066 the most effective way to help them retain the skill over a longer period of time. I still do  
1067 that sometimes, but I have become much more aware of it and I am starting to phase that  
1068 out, and give less feedback so they have think more. (C4)

1069 A number of coaches mentioned communication as an area of change and improvement  
1070 in their coaching approach. One coach in particular remembered the communication component  
1071 from the Coaching and Leading Effectively module and explained:

1072 Communication is a huge portion of explaining drills. Now I'm making sure the athletes  
1073 understand the drills before they go out on the field and there is less time where they  
1074 don't know what's going on. I think more now about my communication to them using  
1075 different ways to explain - they need to see it and feel it. So I'll show them with the ball

1076 on the field and say ‘this is what we’re doing’ or I might have a few people try it, or do a  
1077 walk through. It seems to work. (C3)

1078 As a result of the module on Coaching and Leading Effectively, four of the  
1079 coaches felt they had started to take more of a leadership role with their teams. For  
1080 example, the sailing coach said:

1081 When coaching younger kids, leading by example is the biggest thing I’ve  
1082 taken away from that course, and I’ve actually implemented some of the  
1083 techniques. When you work with younger kids it’s important that they see  
1084 you having fun doing your job – it basically makes them have fun doing  
1085 their job of training or competing. (C8)

1086 Another coach felt that, from the module on Managing Conflict, he improved on his  
1087 ability to manage conflict:

1088 I was pretty familiar with the information on conflict but when I began preparing for the  
1089 season, I incorporated some strategies on conflict prevention. We had the pre-season  
1090 meeting going over the code of conduct. I also made note of my body language and my  
1091 eye contact – all of those things I think I do ok, but bringing it into a renewed focus in the  
1092 course reminded me that these things are important. (C1)

1093 One of the soccer coaches also felt he had begun to implement several specific strategies  
1094 on how to better manage conflict:

1095 There was one instance where a player didn’t make the team, and a complaint went to the  
1096 technical director and the head coach, and I was copied on some of the emails and was  
1097 asked to respond to the club’s executive members, the technical director, and the head  
1098 coach. One of the things that I used, that I learned and used from the course, was to hold

1099 off a bit before responding immediately, because some of the comments that were made  
1100 by the parent got me a bit upset. I was ready to fire off a reply but I held off and replied  
1101 the next day with a more sober thought and controlled response. So rather than escalating  
1102 the conflict, I learned to take the time to present some more controlled response that  
1103 focused on the facts of the situation, not necessarily on the emotions. Those are some of  
1104 the things that we learned in the course. (C1)

1105 In addition to the specific changes made to their coaching approaches, each of the  
1106 coaches spoke of how the various modules helped them become more aware of their actions with  
1107 athletes and parents even if they were still not capable of consistently incorporating the changes  
1108 into their coaching. For example, one coach told the story of encountering a difficult selection  
1109 issue with a parent:

1110 I was probably a bit more curt with them than I should have been. I realize that now,  
1111 more so after the course. I should have introduced myself, number 1. It's my  
1112 responsibility as the coach to communicate these things to the parent when they show up.  
1113 I should have been a bit more understanding of their situation and see where they're  
1114 coming from. That one I took back with me and I need to anticipate those situations and  
1115 be ready for them. (C1)

1116 One of the soccer coaches, who, in his second interview, had mentioned a particular  
1117 communication strategy to deal effectively with conflict, brought it back up again in the third  
1118 interview saying; "I actually used 'I see, I think, I feel, I need' when I was talking with parents. I  
1119 didn't judge and just said what it was and my communication was much clearer. So this is  
1120 something I will continue implement in the future." (C6)

1121 In turning to the three coaches who did not change their coaching approaches as a result  
1122 of the modules, a number of reasons were offered, such as time constraints, wrong time in the  
1123 season to introduce something new, and the suggested approaches did not apply to their coaching  
1124 situation. For example, the canoe kayak coach who attended Psychology of Performance said:

1125 I've had time constraints because the people I work with are predominantly adults and  
1126 they have to get to their jobs in the mornings so in order to organize a time to meet with  
1127 them is very difficult. I'm trying to coordinate with them a little bit of time to teach them  
1128 about the quality focus tool I learned from the module. And as for debriefing, we have a  
1129 set of races coming up this weekend and that's going to be where I'll get into proper  
1130 debriefing after races. (C9)

1131 Another coach explained that the material he was provided with from the module on  
1132 Psychology of Performance had not been forgotten and he still planned on incorporating it into  
1133 his training with his high performance athletes:

1134 I haven't really used a lot of the visualization material yet because I haven't figured out  
1135 how I want to incorporate it. I don't want to throw too many curve balls during the season  
1136 so I'm trying to think about how to set that up in the fall so we can get it structured - so  
1137 by time we get to competitive season next year it's not something new, it's something  
1138 routine to them. I think it'll be more productive that way, to introduce it to them when  
1139 they're not trying to focus on too many other things at the same time. (C7)

1140 Finally, an experienced coach working with soccer players stated that the Psychology of  
1141 Performance module had not influenced his coaching routine, primarily because his role was  
1142 head of a soccer school and his job was to help the players improve their technical skills and they  
1143 did not play in a game setting, "I'm unable to apply any of the longer term goal setting with the

1144 players. Kids only come to train for an hour a week and our focus is mostly based upon getting  
1145 as much technique done as possible.” (C10)

1146 *Other learning situations*

1147 The second objective of the third interview was to ask the coaches about other possible  
1148 learning situations they might have participated in during the three-month time period following  
1149 a module. All ten coaches mentioned at least one other learning situation, such as attending  
1150 another NCCP courses, engaging with other coaches, and attending coaching clinics.

1151 One of the soccer coaches, who attended the Coaching and Leading Effectively module  
1152 for this research, had nearly completed all his Competition-Development modules and was keen  
1153 to continue his learning. “I have taken three modules, plan to complete them all, but in the  
1154 meantime I have been going back to the course books and reviewing the coaching materials that I  
1155 have and there is a lot. It is adding to my tool box of coaching resources” (C6).

1156 Most of the learning situations that the coaches spoke about were informal learning  
1157 situations, such as speaking with and observing other coaches. For example, one of the canoe  
1158 kayak coaches stated:

1159 In the past 3 months I have talked a lot to my dad, who is a national coach about the best  
1160 process for developing athletes. For example, what’s going to be the most fundamental  
1161 elements that we have to hammer into them? It’s largely a technical issue. (C7)

1162 Similarly, another canoe kayak coach spoke of seeking out other coaches for advice on  
1163 specific technical aspects of the kayak stroke and how to give constructive feedback as he was  
1164 having difficulty communicating with one of his athletes:

1165 There’s an athlete I coach regularly and he had problems with his rotation and getting his  
1166 hands to a consistent height. I’ve been asking another coach for some drills and ways to

1167 correct that and the drills that the coach provided me with seem to be working better than  
1168 the ones I was using, so I'm adapting my coaching style to better suit this particular  
1169 athlete. (C9)

1170 Another coach said he was always open to learning and regularly sought out new ideas  
1171 from other coaches:

1172 For example, I met with the Ottawa South United coaches and they have a different  
1173 program, it's more European, but we discussed what they're doing this summer for their  
1174 program, how they're doing it, what's happening in our region. I have to keep an open  
1175 mind in order to learn more. The moment that you say 'stop I don't need to learn  
1176 anything' – you're going to fall behind. I find it challenging. So I study the material, talk  
1177 with other coaches, watch other team's games – the hours are there! I'm doing something  
1178 I think. (C6)

1179 Finally, the sailing coach felt he had improved his own coaching by mentoring club level  
1180 coaches:

1181 I think that the biggest key to success is not creating a difference between a club level  
1182 coach and a provincial level coach. Not only can they learn something from you but also  
1183 you can obviously learn something from them. I think that makes a better coach dynamic  
1184 and it's worked so far for me. (C5)

1185 He also felt he learned from a number of different coaches:

1186 I'm learning a lot from a lot of different people. I had the opportunity to work for 2  
1187 months with a past Olympian. He definitely brought a different side of coaching to the  
1188 table. He was more skill focused and driven and was kind of a 'cut throat' coach. I guess  
1189 in order to be successful you need to be very focused and he conveyed that message to

1190 his athletes and it's paying off in terms of results. I got to work a lot with him and I think  
1191 that the more people that you get to work with, the more tools you can throw in your  
1192 toolbox. (C5)

1193 One coach also learned how to use video analysis by doing research on his own as well as  
1194 speaking with another coach:

1195 We tend to use a lot of video analysis in our sport and I wasn't too familiar with it, or  
1196 perhaps I just didn't realize how important it was to get quality video. So I've been doing  
1197 a bit of research, been talking to other coaches about that and its actually helped in  
1198 debriefings. So learning how to do video analysis has been important. (C5)

1199 Along with learning from others, many coaches mentioned other informal learning  
1200 situations such as reading books and information obtained from the Internet. For example, one of  
1201 the kayak coaches said he did a bit of research online regarding technique surrounding the kayak  
1202 stroke: "The information didn't go into too much detail but it was enough to get me starting to  
1203 think about it and how to apply it into my own program." (C8) Four of the coaches in the present  
1204 study found online drills and techniques that were helpful in their coaching routine.

1205 Finally, coaches mentioned they had been learning by attending coaching clinics. Three  
1206 of the coaches who participated in this research project were a part of a soccer academy that  
1207 partnered up with a soccer-training center that offered coaching sessions. At these weekly  
1208 sessions, coaches were exposed to effective ways to teach specific exercises or drills to their  
1209 players. In speaking about the benefits of the sessions, one of the coaches said:

1210 At some of the sessions they had, one of the elite coaches would coach a team in front of  
1211 you and explain what they were doing and why they were doing it and the way they were  
1212 doing it. That was pretty helpful. Around the same time, I completed a referee course,

1213 which I think will help me in my coaching because it will help me understand the rules of  
1214 the game better. Now that I think of it, it's a good conflict management tool that I learned  
1215 in the course, so that I don't get into so much conflict with the referees! There were a  
1216 bunch of rules that surprised me and I thought 'wow I didn't know that'. (C1)

1217 In summary, seven of the ten coaches spoke of how they had changed some aspect of  
1218 their coaching approach as a result of participating in one of the NCCP Competition-  
1219 Development modules. Three of the coaches indicated that they had not changed their coaching  
1220 approach as a result of one of the modules, either due to time constraints, seasonal issues, or the  
1221 lack of 'fit' of the material with their current coaching role. Nevertheless, all ten of the coaches  
1222 spoke of and provided examples of the various ways they felt they were continuing to learn and  
1223 develop as coaches.

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## CHAPTER V – DISCUSSION

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1237           The purpose of this research study was to understand how the NCCP Competition-  
1238 Development modules contribute to coaches' ongoing learning. In-depth interviews were  
1239 conducted with ten coaches taking part in one of three different Competition-Development  
1240 modules: Managing Conflict, Coaching and Leading Effectively, and Performance Psychology.  
1241 There were three phases of interviews: the first was an interview with each of the ten coaches  
1242 prior to attending a module to understand each coach's biography as well as the various learning  
1243 situations they had already experienced; the second phase was attendance at a Competition-  
1244 Development module and an interview with each of the ten coaches immediately following the  
1245 module to explore the coach's thoughts, reflections and possible learning within the module; and  
1246 the third phase was a final interview with each of the ten coaches three months following the  
1247 module to explore how they implemented learning from the module, as well as other learning  
1248 situations that may have occurred within that three month time frame. The main research  
1249 question that guided the present study was: "What role does an NCCP Competition-Development  
1250 module play in influencing a coach's ongoing learning?" A secondary research question was:  
1251 "What other learning situations did the coaches in the study experience prior to attendance at a  
1252 module and in the three months following a module?"

1253           In this study, the biographies of the seven male and three female coaches varied widely.  
1254 Formal education levels ranged from a high school diploma to a master's degree, athletic  
1255 experience ranged from recreational level to the international level, and the coaching contexts  
1256 ranged from recreational youth sport to coaching at the Pan American Championships. It is quite  
1257 important to note the range in coaching contexts primarily because the NCCP Competition-  
1258 Development level is intended to be for coaches coaching athletes at the provincial or emerging

1259 national level. It is therefore interesting to note that three coaches in the present study were  
1260 coaching young athletes at a recreational level. Coaches working with such a range of coaching  
1261 contexts can certainly impact the learning environment of a module, particularly for the built-in  
1262 discussion portions of a problem-based or competency-based program design. Moon (2001) has  
1263 commented that discussion “must be one of the most widely used processes in education but is at  
1264 the same time one of the most difficult of teaching procedures to use effectively” (p. 146). Given  
1265 that inherent difficulty with discussion, and then understanding the potential difficulty in  
1266 attempting to analyze a ‘problem’ or critical scenario that might exist in coaching provincial or  
1267 national level athletes when part of the group is not coaching at that level, highlights the  
1268 difficulty a learning facilitator might face in leading a meaningful discussion with coaches in  
1269 very different coaching contexts.

1270         Jarvis’ (2006) lifelong learning theory states that an individual’s biography influences his  
1271 or her learning and that “learners bring their lifetime experience to the learning situation” (p. 73).  
1272 The findings indicated several clear examples of how the coaches’ biographies influenced how  
1273 and what they chose to learn. For example, one of the canoe kayak coaches had raced at a  
1274 national and international level and his father was a current national coach in the same sport. As  
1275 a result, he said that while he learned a number of valuable pieces of information in the module  
1276 he attended, he said that he also learned a great deal from informal discussions about training and  
1277 technique with his father. Another coach in the study was still competing in the sport she  
1278 coached, and this meant she was keen to learn aspects of effective communication during the  
1279 Coaching and Leading Effectively module that would help her both as an athlete and as a coach.  
1280 A final example to illustrate the strong influence of one’s biography on what one chooses to  
1281 learn was the soccer coach who was already very highly qualified technically in his sport, yet

1282 knew little about sport psychology, so in that module he was eager to understand the topic to  
1283 help him decide what he should do within his soccer school.

1284         One of the key findings of this study was that seven of the ten coaches made changes to  
1285 their coaching routine after taking one of the modules, and reported that the material provided  
1286 was helpful in the coaching context they were working in. These seven coaches took a deep  
1287 approach to their learning and found meaningful learning that transferred to an actual change in  
1288 coaching practice (Moon, 2001, 2004). They spoke specifically of how they incorporated various  
1289 skills, such as debriefing after performances, into their coaching practice. Certainly for these  
1290 seven coaches the modules had a positive impact.

1291         Another key finding was that four of the ten coaches, as a result of the module on  
1292 Coaching and Leading Effectively, said they developed a greater sense of awareness and  
1293 understanding of their role as a coach. One of the coaches spoke of how she became more aware  
1294 of how she handled interactions, feedback, and confrontation. She realized that she became  
1295 excessively emotional and reacted poorly in a number of different circumstances and indicated  
1296 this was something she had not been aware of prior to the module. Jarvis (2009) writes that self-  
1297 awareness is at the heart of many learning experiences and because it is the whole person who  
1298 learns, it is important to also understand our emotional connection to our learning experiences.  
1299 For this coach, the realization of her tendency to become too emotional is one step in the process  
1300 of learning. She will certainly need to remain conscious of this realization until she learns to  
1301 control those emotions appropriately.

1302         Another finding was the wide variety of learning situations that all ten of the coaches  
1303 experienced prior to coming to the module, as well as within the three months following the  
1304 module. For example, three of the soccer coaches were fortunate to be involved in a sport that

1305 held weekly clinics and they each said the clinics were valuable learning opportunities, primarily  
1306 enabling them to learn specific soccer skills and techniques, although they spoke of several  
1307 sessions that dealt with creating a fun environment for learning and ways to manage parents.  
1308 This finding lends support to the value of nonformal learning situations for coaches (Mallett, et  
1309 al., 2009; Reade, et al., 2008).

1310           A number of the other learning situations mentioned were similar to earlier research in  
1311 that the coaches spoke of learning from informal conversations with other coaches, reading  
1312 books on coaching, and the use of the Internet as a tool for finding drills and technical strategies.  
1313 These findings support much of the earlier research on ‘sources’ of learning (Erickson, et al.,  
1314 2007; Gilbert, et al., 2006; Lemyre, et al., 2007; Lynch & Mallett, 2006; Mallett, et al., 2009;  
1315 Werthner & Trudel, 2006, 2009). As Mallett et al., (2009) have suggested, it is useful for sport  
1316 coaches to participate in a number of different kinds of learning opportunities that will contribute  
1317 to their development, and that these learning situations will likely be a combination of formal,  
1318 nonformal and informal learning situations.

1319           Several of the coaches also spoke about the value they saw in other NCCP coaching  
1320 courses both at the Competition-Introduction level, or in other modules at the Competition-  
1321 Development level. For example, one of the coaches with a kinesiology degree found that in the  
1322 module on Developing Athletic Abilities he obtained a greater understanding of the concept of  
1323 periodization and its relevance to creating a training program for his sailing athletes.

1324           Several coaches also spoke about the benefit of the group discussions that are an integral  
1325 part of the revised NCCP modules. For example, one coach learned about a new way to maintain  
1326 focus with his players, a strategy suggested by another coach, and another coach, spoke of the  
1327 benefit of discussing how to incorporate goal-setting sessions into his training plan. These

1328 findings support both Moon's (2001, 2004) and Jarvis' (2006, 2007) theories of the importance  
1329 of the social environment in relation to learning. Talking about a topic, being able to check one's  
1330 understanding, and being able to ask questions of other participants, are all part of a valuable  
1331 learning environment (Moon, 2001).

1332         There were three coaches who did not change their coaching approaches as a result of the  
1333 modules, at least within the three-month time frame. A variety of reasons were offered, such as  
1334 time constraints, lack of understanding of the concept, confirmation of what they already knew,  
1335 or little application to their personal coaching situation. In terms of lack of time, Jarvis (2006)  
1336 notes that learning takes time and integrating new knowledge from a particular module may take  
1337 longer than the three months allowed for in the present study.

1338         When several of the coaches spoke of not understanding a specific concept, such as focus  
1339 or an intervention, time could also have played a role, in that there is not always enough time in a  
1340 module to have the level of in-depth discussion and reflection necessary for deep understanding.  
1341 Moon (2001) notes that the skill of reflection deepens learning and yet not all participants in a  
1342 course may actually know how to reflect. Teaching both the skill of reflection and teaching the  
1343 content of a module may not be possible in the time allowed. It is also not specifically or  
1344 explicitly part of the course content in any of the NCCP modules. For a new concept such as  
1345 effective interventions, it is possible that the learning facilitator did not have ample time to  
1346 provide an opportunity for the participants to practice the skill during the module.

1347         The third reason cited for not changing was that the module merely confirmed what the  
1348 coaches already knew. This can be seen as learning nevertheless. Jarvis (2006) has said that  
1349 throughout one's life, learning experiences are numerous, but some will have a major impact  
1350 while others will simply confirm what one already knows.

1351           The fourth reason cited for not making a change, due to the content not currently fitting  
1352 their own coaching situation, can be explained by one coach's experiences. He ran a sports  
1353 program that focused on teaching soccer players how to improve their soccer skills and not on  
1354 playing actual games. During the second and third interview, this coach said that he learned  
1355 some valuable information in the Performance Psychology module, but rather than integrating  
1356 those changes himself, he was in the process of hiring an individual to teach sport psychology  
1357 skills to the players in his soccer academy.

1358           Jarvis' (2006) notion of lifelong learning advocates that individuals learn through a  
1359 variety of learning situations across their lifetime. Each of the ten coaches in the present study  
1360 expressed an openness to learning and an interest in continuing that learning. As one of the  
1361 soccer coaches stated, "I think that learning is consistently an ongoing process and the modules  
1362 help. I am constantly learning and looking to learn any chance I get." Adopting the lifelong  
1363 learner perspective may not make coaches' development any easier but it will ensure that  
1364 coaches are in a continual state of becoming better coaches (Jarvis, 2009).

#### 1365 *Limitations*

1366           Every study has limitations and this study is no exception. The first limitation is that a  
1367 small number of coaches were interviewed in this study. With a larger number of coach  
1368 participants, the findings may have varied more widely. The second limitation is that the three  
1369 Competition-Development modules used in this study focused on coaching skills related to  
1370 managing conflict, psychology, and leading effectively. Perhaps if the three other Competition-  
1371 Development modules had been part of this study, which are focused on injury prevention, drug-  
1372 free sport, and physiology, the findings on coach learning might have been different. A third  
1373 limitation is that the third and final interview was conducted only three months after completion

1374 of the module. This is perhaps a short period of time to expect to see changes in coaching  
1375 behaviors, although, in this study, we did see seven coaches make changes to their coaching  
1376 practice as a result of the modules. Nevertheless, it would be beneficial for future research to  
1377 consider interviewing the coaches after a six month to one-year time frame. A fourth limitation  
1378 to consider is the multisport versus sport specific modules. This study consisted of ten coach  
1379 participants attending multisport Competition-Development modules. Future research should  
1380 take into consideration how results might vary depending on whether the module was being  
1381 conducted in a sport specific context, individual versus team sports, or in a multisport setting.

### 1382 *Conclusion*

1383         The purpose of this research study was to understand how the NCCP Competition-  
1384 Development modules contribute to coaches' ongoing learning. The findings of the present study  
1385 indicated that seven of the ten coaches did indeed change their coaching practice as a result of  
1386 attendance at one of the Competition-Development modules. This should be encouraging news  
1387 for coach educators and CAC in particular. In reflecting on Moon's (2001) map of learning and  
1388 the representation of learning, it would appear that these coaches moved beyond noticing and  
1389 making sense of the material of the module to beginning to integrate new ideas into their  
1390 coaching practice. This should certainly be the intention for every course, for every coach.

1391         Nevertheless, the findings also indicated that three coaches did not change their coaching  
1392 approach, at least within the three-month time frame. The reasons cited, such as lack of time or  
1393 lack of a link to their own coaching situation, is something that will need to be looked at more  
1394 closely in future research. Coach educators will need to consider coaching contexts, the nature of  
1395 the multisport versus sport specific modules, and the biographies of coaches coming to

1396 Competition-Development modules. Clearly all these factors have potential to affect the learning  
1397 environment.

1398         In the present study, the coaches noted that the learning facilitator, who was the same for  
1399 all three modules, was well prepared, clear in her instruction, and created a positive climate for  
1400 discussion and learning. This may indeed have been a factor in the number of coaches who  
1401 actually made a change to their coaching practice. Moon (2001) argues that “good instruction  
1402 takes account of the learning of learners” (p. 172), and notes that instructors who take such an  
1403 approach encourage a deep approach to learning. Examining the role of learning facilitators is  
1404 clearly an area for future research.

1405         Finally, the Coaching Association of Canada could create an online coach profile which  
1406 could include a coach’s formal coach education certification, formal education, sports coached,  
1407 and experience as an athlete. This would be regularly updated based on the coach’s NCCP  
1408 certification. Such a profile would enable NCCP learning facilitators and the CAC to clearly  
1409 understand, at any point in time, who their coaches are across Canada.

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## APPENDIX A

- 1555
- 1556 **Phase 1: Interview Guide – Interview prior to attending Competition-Development module**
- 1557
- 1558 Tell me about yourself, your background, your journey to where you are today.
- 1559 -Where did you grow up? Where do you live now?
- 1560 -Age? Gender?
- 1561 -Education level? (High School, University, College degrees)
- 1562
- 1563 Tell me about your sport experience as an athlete.
- 1564 -What sports have you participated in?
- 1565 -At what levels? (recreation, provincial, national, international)
- 1566 -How did you get involved in sport?
- 1567 -How long have you been involved in sport?
- 1568
- 1569 Tell me about your coaching.
- 1570 -Who do you coach? (Team, individual sport?)
- 1571 -Do you coach full time or part time?
- 1572 -Level? (Club, novice, provincial, national)
- 1573 -What sports have you coached in the past? (More than one sport?)
- 1574
- 1575 Tell me about your coach education, and learning as a coach?
- 1576 -What level do you have? When did you complete it?
- 1577 -How do you think you have learned to be a good coach? (Shadow? Books? Internet? Mentors?
- 1578 Athletes? Experience as an athlete?)
- 1579
- 1580 The Competition Development module
- 1581 -What brings you to attend the Competition Development module?
- 1582 -What do think you presently know about this topic?
- 1583 - Is there anything specific you want to learn? (Probe for an example)
- 1584 -What other Comp-Dev modules have you already taken?
- 1585
- 1586

## APPENDIX B

1587  
1588 **Phase 2: Interview Guide – Interview immediately upon completion of Competition-**  
1589 **Development module**

1590  
1591 Tell me about the module.  
1592 -What was useful/what did you learn? Please give an example.  
1593 -Was there anything that was not useful? Why? How? Please give an example.  
1594 -Was there anything you disagreed with/did not fit with your own experience?  
1595 (Did you learn anything from the other coaches? from the group discussions?)  
1596 -What do you think you can take and apply with your athletes? Is there anything you'll do  
1597 differently?  
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## APPENDIX C

- 1620
- 1621
- 1622 **Phase 3: Interview Guide for the third set of interviews – 3 months after completion of the**
- 1623 **Competition-Development module**
- 1624
- 1625 **Learning from Module:**
- 1626 I'm following up on the module on X. In our previous 2 interviews, as well as during the
- 1627 module, we had talked about what you felt you had learned in the module. What has happened in
- 1628 this three-month time frame, in terms of your coaching, (post module)?
- 1629 -Did you do anything differently? Please explain, give an eg.
- 1630 -If it was learning from the module, what have you used? Please give some examples.
- 1631 (Dealing with an athlete/player, dealing with a parent, dealing with the association?)
- 1632
- 1633 -If you have not used anything from the module, why not? Please explain.
- 1634 -If no, did you not encounter any conflict, everything was great?
- 1635
- 1636 **Other learning situations:**
- 1637 -What other ways have you been working on improving your coaching? - if it was from some
- 1638 other learning situation, please explain. (Other coaches, a conversation, other courses, athletes, a
- 1639 book, a conference...)
- 1640
- 1641 -Is there anything else you'd like to add, in terms of your 'learning to be a better, more skilled
- 1642 coach?
- 1643
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1653 APPENDIX D

1654 Consent Form

1655 **Advancing Our Understanding of the Learning Processes of Coaches: Examining How**  
 1656 **NCCP Competition-Development Modules Influence Learning**

1657		
1658	Researcher: Diana Deek	Supervisor: Dr. Penny Werthner
1659	Institution: University of Ottawa	University of Ottawa
1660	Faculty of Health Sciences	Faculty of Health Sciences
1661	School of Human Kinetics	School of Human Kinetics

1662

1663

1664 I, \_\_\_\_\_, have been invited to  
 1665 participate in the abovementioned research study conducted by Diana Deek under the  
 1666 supervision of Dr. Penny Werthner, from the School of Human Kinetics of the Faculty of Health  
 1667 Sciences at the University of Ottawa.

1668

1669 The purpose of this research study was to understand how the NCCP Competition-Development  
 1670 modules contribute to coaches' ongoing learning.

1671 My participation will consist of an interview lasting about 60 minutes, and two follow-up  
 1672 interviews, one in the two weeks following my participation at a Competition-Development  
 1673 Multisport module (about 20-30 minutes); and a final interview three months later (about 40  
 1674 minutes). I understand that my participation in this study will entail that I volunteer personal  
 1675 information about my life in sport and coaching.

1676

1677 I understand that the information that I will share will remain strictly confidential. I understand  
 1678 that the contents will be used only for the analysis of the quality and impact of the National  
 1679 Coaching Certification Program New Competition-Development Multisport Modules and that  
 1680 my confidentiality will be protected in the following manner: A pseudonym will be used in place  
 1681 of my name in the transcription and I understand that only the researchers involved in this study  
 1682 will have access to the codes. The recorded data and written data will be kept at the University of  
 1683 Ottawa.

1684

1685 My participation in this research is voluntary and I am free to withdraw or refuse to answer any  
 1686 questions at any time and without any negative consequences.

1687

1688 If I choose to withdraw from the study, I give my permission for the researchers to analyse the  
 1689 data related to me collected up until that moment.

1690

1691  YES  NO

1692

1693 I will have the opportunity to re-examine and modify, if necessary, the information that I have  
 1694 given.

1695

1696 If I have any questions about the study, I may contact the researcher.

1697  
1698 If I have any questions regarding the ethical conduct of this study, I may contact the Protocol  
1699 Officer for Ethics in Research, University of Ottawa.

1700  
1701 There are two copies of the consent form, one of which is mine to keep.

1702  
1703 Participant's signature: \_\_\_\_\_ Date: \_\_\_\_\_

1704 Participants contact information

1705 Email address: \_\_\_\_\_

1706 Phone number: \_\_\_\_\_

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1726 APPENDIX E

1727 Ethics Approval

1728 Université d'Ottawa Service de subventions de recherche et déontologie University of Ottawa  
1729 Research Grants and Ethics Services

1730

1731 **RE: The Quality and Impact on the National Coaching Certification Program New**  
1732 **Competition-Development Multisport Modules (H 09-08-11)**

1733

1734 Dear Researchers,

February 12, 2010

1735

1736 The Health Sciences and Science Research Ethics Board has examined your request for ethics  
1737 approval of the following modifications to your research project:

1738 The researchers have expanded the data collection to include a second and third interview with a  
1739 purposive, convenience sample of eight of the coaches who are attending a competition-  
1740 Development module.

1741 Ms. Diana Deek, a master's student, is joining the research team. She will use the data from  
1742 interviews with 6 to 9 coaches for her thesis. Professor Penny Werthner, a member of the  
1743 research team, is her supervisor.

1744

1745 Your request has been accepted. The certification of ethical approval renewed on November 24,  
1746 2009 and valid until November 23, 2010 covers these modifications.

1747 During the course of the study, any further modifications to the protocol or forms may not be  
1748 initiated without prior written approval from the REB. You must also promptly notify the REB  
1749 of any adverse events that may occur.

1750 If you have any questions, please do not hesitate to contact me at extension 5387.

1751

1752 Sincerely yours,

1753

1754 Protocol Officer for Research Ethics  
1755 For Daniel Lagarec, Chair of the Health  
1756 Sciences and Sciences REB